# Academic Calendars

## 2019 – 2020

### Fall Quarter 2019
- Quarter begins: September 23
- Instruction begins: September 26
- Veterans Day holiday: November 11
- Thanksgiving holiday: November 28–29
- Instruction ends: December 6
- Common final examinations: December 7–8
- Final examinations: December 9–13
- Quarter ends: December 13
- Christmas holiday: December 24–25
- New Year’s holiday: December 31–January 1
- Winter campus closure: TBD

### Winter Quarter 2020
- Quarter begins: January 2
- Instruction begins: January 6
- Martin Luther King, Jr. holiday: January 20
- Presidents’ Day holiday: February 17
- Instruction ends: March 13
- Common final examinations: March 14–15
- Final examinations: March 16–20
- Quarter ends: March 20

### Spring Quarter 2020
- Quarter begins: March 25
- César Chávez holiday: March 27
- Instruction begins: March 30
- Memorial Day holiday: May 25
- Instruction ends: June 5
- Common final examinations: June 6–7
- Final examinations: June 8–12
- Quarter ends: June 12
- Commencement ceremonies: June 12–14

### Summer 2020
- Summer session begins: June 22
- Independence Day holiday: July 3
- Labor Day holiday: September 7
- Summer session ends: September 11

## 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: December 31–January 1
- 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

### 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

## Online Publications

This [UCLA General Catalog](https://catalog.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://catalog.ucla.edu/schedule-of-classes).
Cover UCLA celebrates its centennial anniversary in 2019. These graphics are a small part of the broad palette of events, activities, and commemorations that take place during the centennial year. See the special insert in this catalog for more about the UCLA centennial.

Title page UCLA celebrates its 100th year, 90th in Westwood. Left: The Westwood campus in 1930, with four buildings completed and one underway, looking north toward the sparse Bel-Air hills. The famous bridge (right) spans the larger of two arroyos, both now filled in. Right: UCLA just a few years ago. It’s easy to match up Royce Hall and Powell Library (center), the top of Janss Steps (left), and other landmarks. Campus buildings now extend north to Sunset Boulevard, adjacent to gated Bel-Air homes.

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, 136 bachelor programs, 130 master’s and professional programs, 128 doctoral and professional programs, and 94 minors as you build a course of study that suits your own interests and aspirations. The size and scope of our campus enables us to offer you a remarkable range of academic possibilities. At the same time, over 70 percent of our undergraduate classes have fewer than 30 students so you can get to know your professors and classmates.

Your fellow students at UCLA come from incredibly diverse backgrounds. Those admitted to our freshman class for 2019-20 are from 50 states and 116 countries. But, like you, all of them are driven by an unwavering commitment to excellence and a determination 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. Undergraduates, as well as graduate students, have opportunities to study with top professors and conduct research under their guidance.

This Catalog includes opportunities for graduate and undergraduate students, including those 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.

As our campus begins its second century, UCLA remains a vibrant community made up of forward-looking achievers who think outside traditional academic boundaries and share an exuberant sense of possibility. We have accomplished so much in our first 100 years, fueled by the optimism and innovation that are hallmarks of UCLA.

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

Gene D. Block
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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

Materials Interdepartmental Program
Materials ................................. MA
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
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

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
Astrophysics .......................................... MS, MAT, PhD
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

Society and Genetics, Institute for Center for Interdisciplinary Instruction
Human Biology and Society ............................. BA, BS

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

Spanish and Portuguese Department
Hispanic Languages and Literatures ..................... CPhil, PhD
Portuguese .................................................. BA, MA
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

Graduate School of Education and Information Studies

Education Department
Education .................................................. MA, MEd, EdD, PhD
Educational Administration ......................... Joint EdD with UCI
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

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

David Geffen School of Medicine

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

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

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

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

Musicology Department
Musicology ................................. BA, MA, CPhil, PhD

John E. Anderson Graduate School of Management

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

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

School of the Arts and Architecture

Architecture and Urban Design Department
Architectural Studies .......................... BA
Architecture ................................. MArch I, MArch II, MA, PhD

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, 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

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
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
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 and Workplace 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
Portuguese
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

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 I/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 2017-18 UCLA received $1.12 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 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 furthers 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.

Today, UCLA is home to over 45,900 students and 4,300 faculty members. With 219 campus buildings, classes are held in more than 85 facilities. As UCLA embraces 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. See UCLA at 100 for a deeper look at its past, present, and future.

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 280,000 students, over 76 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 42,026 students, is enriched by an additional 3,957 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 2017-18 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 2018 entering freshman class had an average high school GPA of 4.38, with an average SAT Reasoning Test composite score of 1,380 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.

Large Campus with a Comfortable Feel

Although most students are from California, they come from all 50 states and 138 foreign countries to study at UCLA. Ethnic minorities comprise 73.4 percent of the undergraduates and 67.6 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, 80 percent graduate within four years, and 90 percent within six years. The average time to degree is 12 or fewer quarters (i.e., four or fewer years). For entering transfer students, 68 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 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. 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 25 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 globally proficient citizens.

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. And it brings together globally and regionally focused UCLA faculty representing departments, professional schools, and research centers in collaborative initiatives to address pressing world challenges such as climate change, global health issues, migration patterns, and the role of nonstate actors.

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. In addition to its many area-based research centers, 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 others.

**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 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 (CloA) 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 California; 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 though 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, Ethnomusiciology 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; University Archives; early maps and atlases; early California newspapers; manuscript collections; transcripts of oral history; ephemera; microfilm; tape recordings; prints; paintings; and drawings, including original architectural drawings.

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, reli-
region, 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 elec-
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

Bruin OnLine (BOL) 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 BOL 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, and 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.

<table>
<thead>
<tr>
<th>UCLA EMERGENCY NUMBERS</th>
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<tbody>
<tr>
<td>Police, Fire, or Medical Emergency</td>
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<tr>
<td>UCLA Medical Center Emergency Room (24 hours)</td>
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<tr>
<td>UCLA Counseling and Psychological Services (24 hours)</td>
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<td>UCLA Police (24 hours)</td>
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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 (USA). Its governing
body, the Undergraduate Students Association Council
(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 partici-
pate 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 perfor-
mance. 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 Kerck-
hoff 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 week-
day 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, pho-
tographers, 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 Acker-
man 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 activ-
ities. 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 sign-
ings, 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. Book-Zone 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.

### 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 on the Disabilities and Computing Program, see Study Services under Student 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 LGBT community.

Office of Ombuds Services

The Office of Ombuds Services responds to issues and concerns from students, staff, faculty, and administrators. Acting impartially, ombuds persons 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

Paying at UCLA requires a permit. The Bruin ePermit paperless permit 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 (ORL) 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 Out-reach 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 gymnasiums; basketball, volleyball, and badminton courts; handball/racquetball/squash courts; a weight training facil-
ity, rock climbing wall, exercise/dance and martial arts stu-
dios; and a games lounge. The Bruin Fitness Center, located
on the Hill, and Kinross Recreation Center, located in West-
wood, offer closer-to-home exercise options for under-
graduate 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, kayak-
ing, 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 2017-18, UCLA men’s and women’s athletic pro-
grams placed 2nd in the Directors Cup national all-around
excellence survey; men placed in the top 10 three times and
women five times over the eight 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 Robin-
son, 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 Pav-
ilion, 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 Mor-
gan Intercollegiate Athletics Center houses the UCLA Ath-
letic Hall of Fame and the actual personal den of Coach
John Wooden. Off-campus facilities include Jackie Robin-
son 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 partici-
pate on the varsity level in baseball, basketball, cross coun-
try, 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 soft-
ball, 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 par-
ticipate 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.
When UCLA was founded in 1919, the 65-page Announcement of the Southern Branch served as its catalog—even though it included UC Berkeley curricula. Today, the 2019-20 edition of the UCLA General Catalog takes a look back at the history of this institution, the milestones it has achieved and surpassed, and how its surroundings and components have changed. It also offers a peek into what the University, and its students and faculty, bring to the present and might bring to the future.

In this special section, the editors have compiled a timeline of achievements, milestones, and discoveries made by the people of UCLA. Readers can discover the history of the University: its leaders, physical campus, and academic achievements. The editors offer some comparisons of what UCLA was like from its earliest days to today, how the Westwood neighborhood grew up around it, how its landmarks and other features got their identities, and tidbits that aren’t commonly known.

This chapter closes with profiles of recent graduates and current students who are making their way based on their UCLA education, the role of UCLA in upcoming significant events, and a gallery of every catalog cover.
1919

Edward Augustus Dickson, first UC Regent from Southern California, wanted to establish a southern branch of the school. A UC Berkeley alumnus, he worked at major newspapers before returning to California. As editor/publisher of the Los Angeles Express, he gave broad news coverage to education in California and the need for UCLA. He co-founded UCLA with Ernest Carroll Moore, and in 1923 chose Westwood for expansion from the Vermont Avenue campus.

1919-1936

Provost Ernest Carroll Moore co-founded the UC Southern Branch in 1919, after serving as president of its predecessor, the Los Angeles State Normal School (teachers’ college). Moore held law, master’s, and doctorate degrees. Before leading UCLA, he taught philosophy and education at Berkeley; was superintendent of Los Angeles schools; and taught education at Yale and Harvard. He led UCLA for 17 years, and taught for five more. Moore named Royce Hall after contemporary philosopher Josiah Royce. Moore’s saying—“Education is learning to use the tools which the race has found indispensable”—is inscribed over the Royce stage.

1936-1937

UC president Robert Gordon Sproul was provost while UC searched for a permanent leader. He spoke publicly about the need for UCLA. During World War II, UC president Sproul again stepped in as chief of UCLA, supported by an interim administrative committee.

1937-1942

Earle Raymond Hedrick, a mathematics professor for 13 years, was chosen provost in 1937. He held a doctorate from University of Göttingen, lectured at the Sorbonne, and taught at Yale and University of Missouri. Hedrick spoke seven languages, and published many mathematics textbooks.

1945-1950

Clarence Addison Dykstra taught political science at UCLA for eight years. Before that he taught at University of Kansas, held positions with the Los Angeles City Club and LADWP, was city manager of Cincinnati, and was president of University of Wisconsin. He was also the first U.S. Selective Service director. Dykstra pushed for student housing and helped reverse UC Regents policy against it, initiating the first on-campus dormitories.

1952-1959

Raymond B. Allen was a medical doctor with a degree from University of Minnesota. He held administration posts at several medical colleges, then became University of Washington president. At UCLA, Allen shepherded and oversaw medical center construction; development of the schools of medicine, dentistry, and nursing; and the start of the neuropsychiatric institute. He went on to work with the International Cooperation Administration and World Health Organization.
1959-1960

Vern Oliver Knudsen, a renowned acoustical engineer, was dean of UCLA graduate studies, then vice chancellor, before being named chancellor. Knudsen played a key role in establishing graduate studies at UCLA in 1933, and helmed the division for 34 years. He designed the acoustics of most early Hollywood sound stages, and helped design acoustics for the Los Angeles Music Center.

1960-1968

Franklin David Murphy was a medical doctor and dean of Kansas University medical school, then chancellor of University of Kansas, before accepting that position at UCLA. He developed the UCLA interdisciplinary institute program, and restructured applied arts into the College of Fine Arts. He also oversaw establishment of the library service and architecture schools. He commissioned the Inverted Fountain, and developed the five-acre sculpture garden that bears his name. He spearheaded new projects like Pauley Pavilion and Jules Styne Institute, and campaigned for bond issues that generated $95 million for campus construction. Murphy later became head of Times Mirror Company.

1968-1997

Charles E. Young became chancellor at 36 years of age, the youngest person to lead a major American university. Young holds master’s and doctorate degrees in political science from UCLA, where he held several administration positions and gained full tenure. Leading UCLA for 29 years, Young helped direct campus growth, oversaw creation of more than 100 endowed faculty chairs, expanded research support, and increased minority enrollment. He focused on cultural and ethnic diversity as hallmarks of a UCLA education. He also was a proponent of college athletics reform, and encouraged student involvement in public service.

1997-2006

Albert Carnesale became UCLA chancellor after 23 years at Harvard, four as its provost. Carnesale holds a master’s degree in mechanical engineering and a doctorate in nuclear engineering. He oversaw the launch of California NanoSystems Institute, programs engaging UCLA with the community, and a new institute for stem cell research. Research grant funding doubled under his tenure, as did private fundraising. Carnesale continues to teach in the schools of engineering and public affairs, and speaks on international affairs.

2006-2007

Emeritus law professor Norman Abrams became acting chancellor while UCLA searched for a new chancellor. Abrams had been with UCLA for 50 years, faced campus challenges such as researcher harassment and low minority enrollment. He lobbied for and helped gain passage of Animal Enterprise Terrorism Act. He initiated holistic application evaluation and promoted community discussion, leading to substantial increases in minority enrollment.

2007–

Gene D. Block became UCLA chancellor after 29 years at the University of Virginia. With master’s and doctoral degrees from the University of Oregon, Block holds faculty UCLA appointments in the Geffen School of Medicine, and College of Letters and Science. His research expertise lies in neuroscience, the effects of aging, and biological timing. During his tenure, the campus initiated a model, campuswide volunteer program; opened an onsite conference center; launched the Grand Challenges research program; and raised more than $4.7 billion through its Centennial Campaign.
Then and Now

A comparison of how things were for UCLA students in 1919 and how they are today.

Campus

**Then**  From 1919 to 1928, the campus was set on 25 acres in east Hollywood, where LA Community College now stands. Border streets were Willowbrook, Monroe, Vermont, and Heliotrope. Its 10 buildings were designed in an Italian Lombardy style. The library held 31,000 volumes, 8,000 pamphlets, and 6,500 bound volumes of periodicals.

**Now**  The campus fills 419 acres in Westwood. Border streets are Sunset, Le Conte, Hilgard, Gayley/Veteran. Its 219 buildings vary in style, but include the original four (and others) designed in the Italian Romanesque style. The library has nine locations; it holds 12 million volumes, 100,000 serial titles, 950,000 e-books, and 700 subscription databases.

Academics

**Then**  Eighteen departments offered two years of instruction, to be followed by degree completion at UC Berkeley. In 1924, UCLA awarded its first degree, a bachelor of education. In 1925, BA degrees were offered in 13 majors. Graduate study began in 1933 with 17 majors.

**Now**  Seventy-one departments and 23 interdepartmental programs, spanning 13 individual schools, offer a total of 392 bachelor’s and graduate degrees. There are three types of bachelor’s degrees and 36 types of graduate degrees. UCLA also offers 98 undergraduate minors (of which 17 are freestanding) and four schoolwide programs.

Students and Faculty

<table>
<thead>
<tr>
<th>Then</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students</strong></td>
<td>undergraduate 31,577 + graduate 14,353</td>
</tr>
<tr>
<td><strong>Faculty members</strong></td>
<td>4,850</td>
</tr>
<tr>
<td><strong>Student-faculty ratio</strong></td>
<td>18 to 1</td>
</tr>
<tr>
<td><strong>Annual tuition</strong></td>
<td>undergraduate $15,775.42; nonresident: $44,767.42</td>
</tr>
<tr>
<td><strong>Annual expenses</strong></td>
<td>(housing, supplies, transportation, personal) $14,518.50</td>
</tr>
<tr>
<td><strong>Movie ticket</strong></td>
<td>$11; large popcorn $7; soda $5</td>
</tr>
<tr>
<td><strong>Cup of coffee</strong></td>
<td>$2.89 and up</td>
</tr>
<tr>
<td><strong>Groceries</strong></td>
<td>(milk, bread, dozen eggs) $6.20</td>
</tr>
<tr>
<td><strong>Gallon of gasoline</strong></td>
<td>(regular) $4</td>
</tr>
</tbody>
</table>

**Then**

- Student enrollment passes 20,000 mark
- Arthur Ashe (A) becomes first African American player on the U.S. Davis Cup tennis team
- Lyndon B. Johnson makes major foreign policy speech, first sitting U.S. president to speak at UCLA
- Julian S. Schwinger wins Nobel Prize in physics (quantum electrodynamics research)
- Martin Luther King, Jr. speaks, urging students to join voter registration project in American south
- Architecture (now arts and architecture) school opens
- Lew Alcindor (Kareem Abdul Jabbar) (A) plays on first of three NCAA championship basketball teams
- QB Gary Beban (A) wins Heisman trophy

**Now**

- Public health school (now Fielding) opens
- Willard Goodwin successfully uses steroids to counteract kidney transplant rejection
- Bruins win first of 10 NCAA men’s basketball championships under coach John Wooden
- Pauley Pavilion opens
- Arthur Ashe (A) wins NCAA men’s tennis singles and doubles titles; later becomes first African American male to win U.S. Open and Wimbledon championships
- Bruin beat Michigan State, first of four Rose Bowl game wins
- Jim Morrison (A) and the Doors claim the #1 spot on the Billboard Hot 100 with “Light My Fire”
Westwood

In 1925, having outgrown the first campus at Vermont and Willowbrook in just six years since becoming the Southern Branch of the University of California, the founders of UCLA were searching for a new location. Once the Westwood property was secured, and initial campus construction underway, developers quickly began planning the surrounding area.

Many streets surrounding UCLA were named by developers for places from their childhood, their instructors at UC Berkeley, and other names with personal meaning. Plans were made for student and instructor housing, sorority and fraternity homes, places of worship, and a commercial district with entertainment.

By 1929, when the Westwood campus opened its doors, the Janss brothers—who made the lion’s share of the UCLA property available—had already planned Westwood Village. Some of its Mediterranean-style buildings were already open, and the district prospered even during the Great Depression. Its shopping, dining, business, and entertainment served students but also nearby movie studios and growing residential neighborhoods.

None of the student life essentials were left out, many within walking distance of campus. The Fox Village movie theater (1931) offered film entertainment. Medical offices, retail shops, and gas stations—with their distinctive towers—were easily reachable. The Bruin theater opened in 1937. The Tropical Ice Gardens (1938) outdoor skating rink held ice show revues and general public skating, was home to the UCLA hockey team, and was also used by Sonja Henie in a 1944 film. The Village was home to Sears and Bullock’s department stores. Students could shop at a drug store and grab a snack at its fountain counter, and buy groceries at Ralph’s market.

Today the district and its environs still offer dozens of food, shopping, and specialty stores; banking and business offices; and entertainment.

Student and faculty apartments, and fraternity houses, line the streets west of campus to the Veteran’s Administration property. To the east, larger homes rise gracefully behind sorority houses, small hotels and apartments, and faith centers.

Westwood Village itself is home to several landmarks. The 1929 Jans dome building, located where Broxton, Kinross, and Westwood Blvd. meet, housed the first UCLA men’s dormitory on its second floor. Tiny Westwood Village Memorial Park cemetery, where many celebrities are interred, is a city historical-cultural landmark. So is the International style Landfair Apartments building, designed in 1937 by architect Richard Neutra, and the Mission Revival-style original Ralph’s Grocery with its two-story corner rotunda. The Crest (originally Uclan) theater was built for live performance, screened newsreels and movies for 70 years, and was recently purchased by UCLA to again offer live entertainment.

419 Acres

Land on which UCLA was eventually built belonged to Arthur Letts, founder/financier of Broadway and Bullock’s department stores. His son-in-law Harold Janss, with his brother Edwin, began developing the property in the early 1920s. Letts, a former trustee of the Los Angeles State Normal School (which became the Southern Branch of UC) on Vermont, had wanted the school to relocate to his western property. The Janss brothers realized that move by convincing the UC Regents to select that site and purchase 375 acres. The owner of the Bel-Air property donated eight acres, with the rest obtained through land swaps with the city of Los Angeles and other owners.

First construction on the site was a bridge across a long north-south ravine, which enabled access to and use of land on both sides of the gap. The bridge still exists, but it lies underground and completely filled in, supporting the Dickson Court roadway between Murphy Hall and the flagpole.

The first campus buildings were Royce Hall, College (now Powell) Library, Chemistry (now Haines Hall), and Physics-Biology (then Kinsey, later Humanities, now Kaplan Hall). Kerckhoff Hall—the original student union—was built in 1930, as was the Chancellor’s (now University) Residence. Four years later, two gymnasia were built. By the late 1940s, there were 11 major buildings and many bungalows.

In the 1950–60s, at least 18 buildings were added including a planetarium, Pauley Pavilion basketball venue, medical center, sculpture garden, the first high-rise dormitory, and a recreation center.

Today, that same 419 acres holds 219 buildings, with classes held in more than 85 of them—soon to grow by expansions to the school of management and a new learning facility for student athletes. The campus has its own steam energy plant; telecommunications central office that maintains thousands of campus phone lines; conference center and hotel; fire and police departments; and Internet backbone network for access at speeds up to 10Gbps, plus campuswide secure and public wi-fi networks. It also includes 26 dormitories; student and public health-care centers; sports venues; five theaters; six museums and galleries; two dozen restaurants and coffee shops; nine major libraries plus dozens of special collections; and student services for study, health, welfare, and banking.

Francis Ford Coppola (A) wins first of six Oscars (screenplay, Patton)

Tom Bradley (A) elected first African American mayor of Los Angeles; holds record for longest term in office (20 years)

Diane Watson (A) is first African American woman elected to California state senate; later becomes ambassador to Micronesia and four-term U.S. congresswoman

1969

1971

1973

1976

1978

1981

1982

1983

ARPANET, co-designed by Leonard Kleinrock, transmits first Internet message from UCLA to Stanford

Bill Walton (A) plays on first of three NCAA championship basketball teams

Student enrollment passes 30,000 mark

First total shoulder replacement surgery performed at medical center

UCLA doctors report first AIDS cases

Pasadena’s landmark Rose Bowl stadium becomes home field for Bruin football

Library holdings surpass five million volumes
Who It’s Named For

Buildings, streets, facilities, other entities named for notable UC and UCLA people.

**Ackerman Student Union**
William C. Ackerman alumnus, first UCLA tennis coach, and longtime ASUCLA director

**Alpert School of Music**
Herb Alpert Grammy-winning jazz musician, entertainment executive, philanthropist

**Anderson School of Management**
John E. Anderson alumnus, lawyer, businessman

**Ashe Student Health Center**
Arthur Ashe alumnus, tennis champion

**Boelter Hall**
Llewellyn M.K. Boelter first dean of engineering school

**Boyer Hall**
Paul D. Boyer chemist, professor, Nobel chemistry prize winner

**Bradley International Hall**
Tom Bradley alumnus, police officer, lawyer, Los Angeles city councilman and its longest-serving mayor

**Broad Art Center**
Edyth and Eli Broad developer and philanthropists

**Bunche Hall**
Ralph J. Bunche alumnus and Nobel peace prize winner

**Campbell Hall**
Lily Bess Campbell renaissance and Shakespearean literature professor

**Carnesale Commons**
Albert Carnesale chancellor emeritus

**De Neve Drive, Plaza, Commons**
Felipe de Neve fourth governor of California under Spanish rule and founder of the Los Angeles pueblo

**Dickson Plaza, Court**
Edward A. Dickson UC regent and co-founder of UCLA

**Dodd Hall**
Paul A. Dodd Letters and Science dean

**Drake Stadium**
Elwin C. "Ducky" Drake alumnus, award-winning track coach

**Dykstra Hall**
Clarence A. Dykstra provost emeritus (first campus dormitory)

**Fielding School of Public Health**
Jonathan E. Fielding former director of Los Angeles County Department of Public Health, philanthropist; and wife Karin

**Franz Hall**
Shepherd Ivory Franz neuropsychologist, first chair of psychology department, helped establish graduate education at UCLA

**Freud Playhouse**
Ralph Freud actor, director, professor, established first theater department

**Geffen School of Medicine; Geffen Hall, Playhouse, Academy**
David Geffen entertainment executive, philanthropist

**Gonda (Goldschmeid) centers and building**
Leslie Gonda holocaust survivor, philanthropist; and wife Susan

**Haines Hall**
Charles Grover Haines political scientist, professor

**Hedrick Hall, Summit**
Earle Raymond Hedrick provost

**Hershey Hall**
Mira Hershey major donor for 1930s women-only dorm

**Janss Steps**
Edwin and Harold Janss land developers who arranged the deal to sell their Westwood acreage for the new UCLA campus

**Kaplan Hall**
Renée and David Kaplan alumni, longtime faculty members

**Kaufman Hall**
Glorya Kaufman philanthropist

**Kerckhoff Hall**
William George Kerckhoff hydroelectric power and land developer

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**Bruce Merrifield wins Nobel Prize in chemistry (peptide synthesis)**

**Medical doctor/chemist Anna Lee Fisher (A) is first mother in space on NASA shuttle Discovery**

**Actor-activist George Takei (A) is honored with a star on the Hollywood Walk of Fame**

**School of arts and architecture opens**

**Guido Guglielmi invents detachable coil to treat brain aneurysms**

**Fowler Museum opens**

**Gil Garcetti (A) becomes Los Angeles district attorney; as a master photographer, later exhibited at Fowler Museum**

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**1984**
- Heart transplant program founded
- UCLA hosts Olympic gymnastics and tennis, athletes’ village; heptathlon record-holder Jackie Joyner-Kersee (A) wins first of six Olympic medals

**1985**
- Bruce Merrifield wins Nobel Prize in chemistry (peptide synthesis)

**1986**
- Medical doctor/chemist Anna Lee Fisher (A) is first mother in space on NASA shuttle Discovery
- Physicist Taylor Wang (A) becomes first Chinese American astronaut on NASA shuttle Challenger

**1987**
- Donald J. Cram wins Nobel Prize in chemistry (host-guest chemistry)
- School theater, film, and television opens

**1989**
- Murray E. Jarvik and Jed Rose patent first nicotine patch
- William Sharpe wins Sveriges Riksbank prize in economics

**1990**
- Gil Garcetti (A) becomes Los Angeles district attorney; as a master photographer, later exhibited at Fowler Museum
- School of arts and architecture opens
- Guido Guglielmi invents detachable coil to treat brain aneurysms

**1991**
- Gilbert Cates wins Emmy for Academy Awards telecast, second of 14 times he produced the movie awards show

**1992**
- Actor-activist George Takei (A) is honored with a star on the Hollywood Walk of Fame

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**1984**
- 1988
- 1989
- 1990
- 1991
- 1992
Knudsen Hall
Vern Oliver Knudsen  chancellor emeritus, professor, acoustical engineer, helped establish and was first dean of graduate studies

La Kretz Hall, Botany Building
Morton La Kretz  alumnus, philanthropist, real estate developer/manager

Luskin School of Public Affairs, Conference Center
Meyer Luskin  businessman; and wife Renee; alumni

LuValle Commons
James Ellis “Jimmy” LuValle  alumnus, Olympic track bronze medalist, first president of the Graduate Students Association

Macsowan Hall
Kenneth Macgowan  Oscar-winning theater and movie producer, first chair of theater arts department, TFT dean

Mathias Botanical Garden
Mildred E. Mathias  longtime garden director and initiator of public garden tours

Melnitz Hall
William Wolf Melnitz  alumnus, theater director and producer, professor, first dean of fine arts college, formed UCLA theater company that became Los Angeles’ Center Theater Group

Moore Hall
Ernest Carroll Moore  first provost

Murphy Sculpture Garden, Hall
Franklin D. Murphy  chancellor emeritus

Ostin Music Center
Morris “Mo” Ostin  music industry executive and philanthropist; and wife Evelyn

Pauley Pavilion
Edwin W. Pauley  developer and donor

Perloff Hall
Harvey S. Perloff  developer of regional economics, dean of architecture school

Portola Plaza, Building
Gaspar de Portolá  first governor of California under Spanish rule; explored and expanded state northward from San Diego to San Francisco

Powell Library
Lawrence Clark Powell  first UCLA university librarian

Reiber Hall, Terrace, Vista
Charles H. Rieber  first dean of letters and science

Rolfe Hall
Franklin Prescott Rolfe  administrator, English professor, L & S dean

Royce Hall, Drive
Josiah Royce  California philosopher and UC Berkeley professor

Samueli School of Engineering and Applied Science
Henry Samueli  alumnus, electrical engineer, professor, philanthropist

Schoenberg Music Building
Arnold Schönberg  composer and professor

Sproul Hall, Cove, Landing
Robert Gordon Sproul  UC regent, co-founder of UCLA

Terasaki Life Sciences Building
Paul Ichiro Terasaki  professor emeritus, developer of transplant tissue-typing test, philanthropist

Ueberroth Building
Peter V. Ueberroth 1984 Los Angeles Olympics committee president and former MLB commissioner

Wight Gallery, New Wight Gallery
Frederick S. Wight  first curator of campus gallery holdings, painter, director of Boston Institute of Contemporary Art

Wilson Plaza
Bob and Marion Wilson  alumni, philanthropists; chaired first 10-year UCLA fundraising campaign

Young Hall
William Gould Young  chemistry professor, dean of physical sciences, vice chancellor

Young Research Library, Drive
Charles E. Young  alumnus, youngest and longest-serving UCLA chancellor (29 years)

1994
- Paul D. Boyer wins Nobel Prize in chemistry (cellular energy enzymes)
- Dennis Slamon’s Herceptin, first genetics-based breast cancer drug, gains FDA approval
- UCLA begins operating the Hammer Museum
- Social welfare and urban planning become public policy and social research (now Luskin public affairs) school
- Conjoined twins successfully separated at Mattel Children’s Hospital
- Margaret Kivelson’s research confirms existence of subsurface global ocean on Jupiter’s moon Europa
- Andrea Ghez confirms existence of supermassive black hole at center of Milky Way galaxy

1997
- James Horner (A) wins Oscars (score and original song, Titanic)
- Library collections reach 7 million volumes
- Bruns win first of seven NCAA women’s gymnastics titles
- Conjoined twins successfully separated at Mattel Children’s Hospital
- Margaret Kivelson’s research confirms existence of subsurface global ocean on Jupiter’s moon Europa
- Andrea Ghez confirms existence of supermassive black hole at center of Milky Way galaxy

1998
- Louis J. Ignarro wins Nobel Prize in physiology or medicine (nitric oxide signaling)
- Jared Diamond wins Pulitzer prize in general nonfiction (history of societies)
- Social welfare and urban planning become public policy and social research (now Luskin public affairs) school
- Conjoined twins successfully separated at Mattel Children’s Hospital
- Margaret Kivelson’s research confirms existence of subsurface global ocean on Jupiter’s moon Europa
- Andrea Ghez confirms existence of supermassive black hole at center of Milky Way galaxy

2000
- Alan Kay wins Turing award for ideas behind object-oriented languages and Smalltalk development
- Morris “Mo” Ostin (A) inducted into Rock & Roll Hall of Fame
- Social welfare and urban planning become public policy and social research (now Luskin public affairs) school
- Andes win first of seven NCAA women’s gymnastics titles
- Social welfare and urban planning become public policy and social research (now Luskin public affairs) school
- Margaret Kivelson’s research confirms existence of subsurface global ocean on Jupiter’s moon Europa
- Andrea Ghez confirms existence of supermassive black hole at center of Milky Way galaxy

2002
- Student enrollment passes 38,500 mark
- Margaret Kivelson’s research confirms existence of subsurface global ocean on Jupiter’s moon Europa
- Andrea Ghez confirms existence of supermassive black hole at center of Milky Way galaxy

2003
- Tim Robbins (A) wins Oscar (supporting actor, Mystic River)
Look to the Future

What have Bruins have done recently? Here is a brief glimpse at recent UCLA accomplishments and projects, and where they could lead going forward.

Bruin Space, a group of nine undergraduates and two graduate students from several science and engineering disciplines, sent the first all-student-built microgravity experimental pump into orbit aboard a Blue Origin reusable rocket. This type of pump could be used on space stations, rovers, and interplanetary bases.

The Margo Leavin Graduate Art Studios opened in nearby Culver City. The 75,000 square-foot facility has 45 studios plus classrooms, a gallery, and other functional spaces.

A team of two alumni lead authors, a graduate student, a professor, and a Jet Propulsion Laboratory scientist created an ultra-sensitive light-detecting sensor system that translates terahertz signals into radio waves. The system, usable on Earth or in space-based observatories, produces images in ultra-high clarity and can reveal composition, radiation interaction, and origins of objects and molecules.

Student housing expansion began with two new apartment buildings in Westwood village. Another complex is planned adjacent to existing graduate student housing. All told, new projects will add 5,300 beds in the next five years to the current capacity of 18,500 students.

Physiological sciences graduate Haya Kaliounji (BS ’19) founded Rise to help limbless albinos in Syria. Begun as a project to help Kaliounji earn a Girl Scouts Gold Award, the nonprofit has supplied limbs to more than 40 people. As she continues growing the nonprofit to get prosthetics to more people, Kaliounji hopes to become a doctor.

A leading economics report showed that UCLA has an $11 billion impact on California, $4 billion of that in Los Angeles alone. Startup companies built on UCLA technologies are valued at $33 billion over the last two decades.

Professors, post-doctoral researchers, and former researchers led a multi-school team in developing smart insulin that controls glucose levels. An added molecule keeps too much glucose from entering a cell when blood sugar is normal, and can also respond more rapidly when glucose levels get high; glucose is lowered while the risk of hypoglycemia is greatly reduced.

The graduate School of Education and Los Angeles Unified School District expanded their community school program to a second location, Horace Mann School in south L.A. The program revitalizes school curriculum, staffing, and facilities; addresses the needs of students and parents; and helps unify the neighborhood to foster a college-going culture.

A graduate student, two professors, a researcher, and a recent PhD alumnus designed a water-vapor capture system inspired by dewdrops on spiderwebs. Using a dense array of vertical threads, the system can harvest water from the atmosphere, produce clean water from wastewater evaporation, or capture steam to recycle it back into cooling systems.

Management student Pablo Osorio Martini’s startup BruxA won a major prize for new entrepreneurs. The seed funding will help his company offer affordable mouth guards for those who grind their teeth while sleeping, with an approach similar to online personal-care companies that defy retail pricing for common products. The prize team included three law students and another management student.

When Los Angeles won the bid to host the 2028 Olympics, UCLA became the official site of the Olympic and Paralympic athlete villages. The campus has twice been the site of major international athletic competition: Pauley Pavilion, the Los Angeles Tennis Center, and dormitories were used during the 1984 Olympic summer games; and the campus hosted the 2015 Special Olympics World Games. UCLA athletes have won a total of 233 Olympic medals.
100 Years of the Catalog

1919–1939 The 65-page, digest-format Announcement of the Southern Branch was a summary of academic and student information; a Circular with historical data, curricula (including UC Berkeley, where it was published), administrators, faculty, and programs; and an Announcement of Courses with course titles, units, instructors, and schedules. By 1933, courses filled 130 pages. A term calendar and academic requirements were soon added. The booklet sold for 10 cents. In 1934 the catalog was renamed UC Bulletin General Catalogue and focused on offerings at the three UCLA colleges: agricultural, letters and science, and teachers. It covered majors, requirements, and subject areas. The schedule was deleted, but course descriptions were added. The catalog now cost 25 cents.

1940–1959 By the late 1940s, the catalog was over 400 pages long. Although Bulletin was dropped from the title, content changed little during this period. Inside headings used bold lettering, but body text looked the same as it had for 40 years. By 1959, the catalog cost 50 cents.

1960–1979 The title became General Catalogue issue in 1961, when production and printing of the 500-page book moved to Los Angeles. Spelling changed to catalog in 1964. The awkward wording was corrected a year later, when issue was positioned after the academic year numerals. The official title has been UCLA General Catalog since 1966. In 1968, the catalog sold for $1. By 1975, it included a detailed full-year calendar; special programs, research, and institutes; fee and financial aid details; and large photos. At 700 pages, it was over one inch thick and sold for $1.50. One year later, the larger quarto size lowered the page count to 400 while adding deeper description of facilities, organizations, and programs. A layout change dropped page count to 300 with space for more photos.

1980–2000 From 1980 through 1982, there were two catalogs: one for graduate students and one for undergraduates. This duplicate content wasn’t economical to produce or purchase (each sold for $3). The catalog was recombined into one book for 1983, adding new graduate and undergraduate study chapters. Page count ballooned to 500; within three years, the price was $4. Courses, arranged by college/school, were hard to find unless a reader knew which school hosted a department. The Registrar’s Office took over catalog responsibilities in 1990. Within five years, school information was separated from course and major content. A curricula chapter presented majors, minors, programs, and courses in alphabetical order by department. 1995 also introduced the first two-year catalog ($6).

2001–Present An annual catalog returned in 2007, when it was realized that programs did change and students weren’t served well by outdated information. Now letter sized, the catalog sold for $10. All production was handled in-house by a small team that researched, wrote, edited, designed, formatted, and output the catalog for print, PDF, and Web. But with increased printing costs and lower sales, a paper catalog soon became passé. Schools nationwide had stopped catalog printing, since digital versions could be output on demand. The last printed UCLA General Catalog was printed in July 2009.

As University record-keeper, the Registrar must publish an accurate and complete catalog. Preparation of each new catalog edition begins in early February. Two editors compile the catalog with updates from every UCLA entity. Courses come from mainframe data. Programs reflect Academic Senate actions and approvals. Faculty are updated from payroll data. Editors document changes to facilities, policies, and more. The catalog is published online as a 1,400-page microsite in early July, then archived as a 750-page PDF.
Undergraduate Study

Undergraduate students at UCLA can earn Bachelor of Arts and Bachelor of Science degrees in 136 majors in the College of Letters and Science and six professional schools: 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 and vice provost for Undergraduate Education, 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.
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

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.
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

<table>
<thead>
<tr>
<th>Subject Requirement</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>A. History/Social Science</td>
<td>2 years</td>
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<tr>
<td>B. English</td>
<td>4 years</td>
</tr>
<tr>
<td>C. Mathematics</td>
<td>3 years</td>
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<tr>
<td>D. Laboratory Science</td>
<td>2 years</td>
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<tr>
<td>E. Language Other than English</td>
<td>2 years</td>
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<tr>
<td>F. Visual and Performing Arts</td>
<td>1 year</td>
</tr>
<tr>
<td>G. College Preparatory Electives</td>
<td>1 year</td>
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</tbody>
</table>

### 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 application 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.

Proficiency in English

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 complete the English as a Second Language (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.

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.

E-bill

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 nonresidents 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. UCHISP components are medical, vision, dental, and behavioral health services.

The UCHISP fee is billed each term along with other UCLA fees. UCHISP 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 UCHISP, 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 UCHISP services under certain conditions. Contact the Ashe Center to learn more.

**Waiving UCHISP**

Students may waive UCHISP 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 UCHISP 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 information on withdrawal, see the [Academic Policies](#) chapter or consult Registrar’s [refunds](#) 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; Ack-
erman 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.

**Enrolling in Classes**

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 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 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.

- Arts and Architecture
  Student Services, 2200 Broad Art Center

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:

- Honors students
  Honors Programs, A311 Murphy Hall

- Student athletes
  100 Morgan Intercollegiate Athletics Center

- AAP students
  Academic Advancement Program, 1209 Campbell Hall

- All other letters and science students
  College Academic Counseling, A316 Murphy Hall

- Arts and architecture; engineering; music; nursing; public affairs; and theater, film, and television students
  Respective student service office

The application is also available on the Registrar’s website.

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.

Applying 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 2019-20 academic year 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 considered them for other scholarships that open throughout the academic year. Continuing students are encouraged to submit the scholarship application as early as May 1 of the previous year. However, year-round submission is accepted.

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

The Alumni Scholarships Program is one of the oldest and most prestigious scholarship programs on campus. Since 1936, a select group of distinguished Bruins have had the honor of being known as Alumni Scholars. Recipients are selected by alumni volunteers throughout the U.S. for the following programs:

Community College Transfer Alumni Scholarship (CCTS). For students transferring to UCLA from a California Community College with a 3.75 grade-point average. Financial awards are $4,000 over a two-year tenure.

Freshman Alumni Scholarship. Awards prospective freshmen who have demonstrated academic excellence, powerful leadership, and a desire to effect positive change. Financial awards for freshmen range from $4,000 to $20,000 over a four-year tenure.

Lew and Edie Wasserman Grant. Sophomore and Junior Alumni Scholars may apply to receive additional financial assistance. Applicants are evaluated on a combination of academic merit and financial need.

National Finals Competition. Every April, top-scoring UCLA freshman scholarship applicants participate in the competition to potentially increase their base scholarship award up to $20,000 paid over four years. This competition is a 30-year tradition of the program.

Need-Based Scholarship. First-year Alumni Scholars who complete a FAFSA and have demonstrated financial need may also receive up to $5,000 for the first year in addition to their scholarship award.

Out-of-State Scholarship. Offers an outstanding opportunity for highly accomplished students from outside California to fund their UCLA education.

Ralph Bunche Freshman Alumni Scholarship. Continues the legacy of Dr. Ralph J. Bunche (class of 1927), first-generation college student who went on to become class valedictorian, a Nobel Peace Prize winner, and a founder of the United Nations. Bunche Scholars exemplify Dr. Bunche’s experiences, come from all walks of life, and are invaluable to the UCLA community.

True Bruin Distinguished Senior Award. Awarded to highly meritorious students who exemplify the True Bruin values of integrity, excellence, accountability, respect, and service. Awardees receive up to $5,000; and are recognized and celebrated for the skills, knowledge, and leadership experiences they have demonstrated on campus and in their community.

UCLA Alumni Legacy Scholarship. For academically talented undergraduate students who have a parent or guard-
ian who is a UCLA degree holder. The applicant must be admitted to UCLA under the standard admissions process.

Being an Alumni Scholar is more than just receiving a scholarship. Awardees are automatically enrolled in the Alumni Scholars Club where they are involved in campus events and organizations with like-minded students, increase their connections throughout UCLA, and attain skills that will benefit their professional career well after graduation.

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. Amounts for 2019-20 range from $657 to $6,195 for students enrolled full time. 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. Award amounts are $12,630 for Cal Grants A and B, with an additional $1,672 books and supplies stipend for students receiving Cal Grant B. 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 according to repayment schedules. 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 immedi-
ate 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 136 majors in a wide variety of disciplines offered through the undergraduate degree programs of the College of Letters and Science, 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. 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 scoring 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
- Pass 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 less must repeat the course during their next term in residence.

Satisfaction of the Entry-Level Writing requirement is a requisite to 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 satisfied 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:

• Completing 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
• Completing 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
• Presenting a satisfactory result of the requirement, by examination, as administered at another college or university within the state
• Scoring 500 or better on the SAT Subject Test in U.S. History
• Scoring 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.

For more information on this requirement, contact the undergraduate History Department counselor in 6284 Bunche Hall.

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 arts, humanities, 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. Arts, humanities, 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, communication, and history, and is eligible for College Honors consideration. The internship placement fulfills the internship requirement for the Civic Engagement 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 1009 Moore Hall. See the program description in the Curricula and Courses chapter.

Joint Mathematics/Education Program

The Joint Mathematics/Education Program (JMEP), offered jointly by GSE&IS and the Department of Mathematics, leads to a teaching credential and master’s degree in education for mathematics majors pursuing a career in secondary school teaching. The program offers courses in education for students completing courses required for a Bachelor of Science degree in a major within the Department of Mathematics. During their senior year, participants serve as teaching interns in an observational teaching program under the direction of a teaching coordinator. During the year following graduation, students take additional graduate courses and teach full-time in a secondary classroom with a full salary. For information, contact the Mathematics Student Services Office, 6356 Mathematical Sciences.

Mathematics for Teaching BS

The Mathematics for Teaching capstone major is designed primarily for students planning to teach mathematics at the high school level. It exposes students to a broad range of mathematical topics, especially those appropriate for the prospective teacher. Students who complete the major and meet the conditions of the Mathematics Department’s California-approved subject matter program are eligible for a waiver of the California Single Subject Teaching Credential in Mathematics (CSET). For information, contact the Mathematics Student Services Office, 6356 Math Sciences. See teaching credential. At the end of their senior year, students may request a letter from the Mathematics Student Services Office verifying their completion of these courses and thus their subject matter competence for the CSET. See the degree 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.

Teaching Secondary Mathematics Minor

The Teaching Secondary Mathematics minor is designed for students majoring in fields other than mathematics who plan to teach secondary mathematics after graduation. The minor recognizes completion of requisite coursework for the Joint Mathematics Education Program, and prepares students for the contents on the California Subject Examination for Teachers (CSET). Post-bachelor credentialing programs see that students with this minor have taken coursework on secondary mathematics from an advanced standpoint that is recommended by the Conference Board of Mathematical Sciences and the California State Commission on Teacher Credentialing. This minor is not open to students in any Mathematics Department major. See the program description in the Curricula and Courses chapter.

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 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 Civic Engagement. The office is in A265 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 a 3.0 grade-point average.

Lower-Division Seminar Programs

Collegium of University Teaching Fellows

The Collegium of University Teaching Fellows (CLUTF) 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 Freshman Seminar Program**

As a cornerstone of the innovative undergraduate curriculum at UCLA, up to 200 seminars are offered annually through the Fiat Lux Freshman 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 (Pass/No Pass 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 following fall and winter quarters, 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, selected 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 a 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 College Faculty Executive Committee (FEC).

**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.

**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 orients 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 six-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 informa-
tion 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 six 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 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.

**Academic Counseling**

AAP professional and peer counselors are available for College students. For more information, see the College and Schools chapter.

**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 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 and their connection to social contexts.

**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 and intern, under professional staff supervision, at a community-based organization.

**Educators for Tomorrow (EFT)**

The program assists a new generation of socially conscious educators. AAP students, guided by a graduate mentor, participate in community service programs, internships, and research.
High Achievement in Math and Science (HIGH AIMS) Program

The program supports AAP students seeking further learning in 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 28 AAP students for PhD programs. Students conduct an independent research project and participate in a research-intensive summer program.

Peer Learning

The AAP Peer Learning unit offers numerous academic support sessions with peer learning facilitators (PLFs). These PLFs are mainly upper-division undergraduates (and academic role models) who successfully completed courses in the mathematics, sciences, humanities, and social sciences disciplines. More specifically, PLFs facilitate individual and small group sessions that strive to help AAP students recognize their own intellectual authority by encouraging them to engage in 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 meet regularly with graduate mentors and a faculty member.

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 while meeting regularly with a graduate student and faculty mentor.

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; 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 Dean of Students Office.
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, doctoral, and graduate professional degree programs (other than those in law, medicine, and dentistry) and postdoctoral 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. The dean of the Graduate Division also serves as vice provost of graduate education.

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.

Applying 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 the last two years of 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 Graduate Programs in Bioscience

Applicants to PhD programs in fields related to life and biomedical sciences apply for admission to one of 10 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 below.

Bioinformatics

Human Genetics

Molecular Biology

Molecular and Medical Pharmacology

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
Students who are required to take the ESLPE must do so before or during their first term at UCLA. Failure to do so results in a hold on student records. Students may take the ESLPE once only. Unauthorized retakes of the examination result in an invalid examination score. Depending on ESLPE results, students may be required to complete one or more courses in the English as a Second Language (ESL) credit-bearing series, beginning in their first term in residence at UCLA. The courses must be passed with a grade of C or better if taken for a letter grade, or B or better if taken on an S/U basis. Taking required ESL courses may prolong students’ time to degree. If students do not achieve a minimum score on the ESLPE, their admission is deferred until they have acquired the necessary proficiency in English.

Teaching Assistantships

Non-native English-speaking international graduate students 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 TOP 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.

**Duplication of 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 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.

**E-bill**

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. UCSHIP components are 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.

Waiving UCSHIP
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 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 medicine, dentistry, and nursing for their respective students.

**Enrolling in Classes**

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**

Because the cost of a graduate education may present a financial hardship, students who require assistance in meeting educational costs are encouraged to apply for aid based on their financial need. Need is defined as the difference between allowable school-related expenses and financial resources. Financial aid applicants must complete the Free Application for Federal Student Aid (FAFSA) online by the priority filing deadline of March 2. Some awards, such as university grants, are subject to availability of funding. Students who complete the FAFSA by March 2 should also make sure that any additional 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 filed by April 30 for on-time consideration.

Financial aid is also available to UCLA students enrolled in summer travel, summer institutes, or 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

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

<table>
<thead>
<tr>
<th>UNDERGRADUATE CLASS LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Designation</td>
</tr>
<tr>
<td>Freshman (UFR)</td>
</tr>
<tr>
<td>Sophomore (USO)</td>
</tr>
<tr>
<td>Junior (UJR)</td>
</tr>
<tr>
<td>Senior (USR)</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>GRADUATE CLASS LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Designation</td>
</tr>
<tr>
<td>Master (MA/MS) (GMT)</td>
</tr>
<tr>
<td>Professional Master (GPM)</td>
</tr>
<tr>
<td>Doctorate 1 (GD1)</td>
</tr>
<tr>
<td>Doctorate 2 (GD2)</td>
</tr>
<tr>
<td>Professional School (PF)</td>
</tr>
<tr>
<td>Professional School (PF2)</td>
</tr>
<tr>
<td>Professional School (PF3)</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 grade of I 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>
<td></td>
<td></td>
</tr>
</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 Arts and Architecture, Letters and Science, and Music 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.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points</th>
<th>Course Units</th>
<th>Total Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A–</td>
<td>3.7</td>
<td>4</td>
<td>14.8</td>
</tr>
<tr>
<td>B–</td>
<td>2.7</td>
<td>4</td>
<td>10.8</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>4</td>
<td>9.2</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td></td>
<td>34.8</td>
</tr>
</tbody>
</table>

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 re-admission 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. Refer to 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. Course work 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 course work 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>Term</th>
<th>Deadline</th>
</tr>
</thead>
<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>
</tr>
</tbody>
</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 semes-
ters 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 can-
cellation or withdrawal, must apply for readmission.

Students who have registered at any time as a graduate stu-
dent 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 aca-
demic 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, alter-
ation, 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 back-
ground 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 verifi-
cation—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 fol-
lowing the conclusion of final examinations. Complete aca-
demic transcripts are available approximately two weeks
after the last day of the term. For graduating students, aca-
demic transcripts with the graduation date included are
available approximately six weeks after the term-end date.
Students who need earlier proof of graduation may contact
a degree auditor at 1113 Murphy Hall.

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

For auto insurance good-student discount purposes, an aca-
demic 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 pay-
ment), enrollment status, and degrees. This transcript con-
forms 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 audi-
tor 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 requirements, 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 situation, 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 corre-
spond 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 College of Letters and Science, School of the Arts and Architecture, 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 prior to graduation, students may request a review of degree progress. These official degree checks detail requirements remaining to complete the bachelor’s degree. The degree check process may be different for the College and each school. The Degree Audit is a computer-generated assessment of all degree requirements and the courses taken to fulfill them. The Degree Audit may be viewed and printed through MyUCLA, or may be ordered at a College or school counseling office.

College of Letters and Science

Degree Audits are available through MyUCLA and on request from a College advising office (Academic Advancement Program, 1205 Campbell Hall; Honors Programs, A311 Murphy Hall; College Academic Counseling, A316 Murphy Hall). Students should review their Degree Audit with department undergraduate advisers and College advisers to ensure that all requirements will be satisfied.

School of the Arts and Architecture

Degree Audits are available through MyUCLA and on request from the Office of Student Services, 2200 Broad Art Center. Students should consult a Student Services adviser when they have questions about degree requirements. Specific questions regarding major requirements should be referred to the department counselor.

Henry Samueli School of Engineering and Applied Science

Degree Audits are available through MyUCLA for students who entered fall quarter 2012 and later. Students who entered prior to fall quarter 2012 may request a degree audit from the Office of Academic and Student Affairs, 6426 Boelter Hall. All students are encouraged to meet regularly with an academic counselor. For details, see the school undergraduate degree audit web page.
Herb Alpert School of Music
Degree Audits are available through MyUCLA and on request from the Office of Student Services and Enrollment Management, 1642 Schoenberg Music Building. Students should consult an adviser in this office when they have questions about department, school, or UCLA degree requirements.

Meyer and Renee Luskin School of Public Affairs
Degree Audits are available through MyUCLA and on request from the Undergraduate Program Student Services Office, 3250 Public Affairs Building. Students should review their Degree Audit with an undergraduate adviser to ensure that all requirements will be satisfied.

School of Nursing
Degree Audits are available through MyUCLA for students who entered fall quarter 2012 and later. Students who entered prior to fall quarter 2012 may request a degree check from the undergraduate student affairs adviser, 2-147 Factor Building.

School of Theater, Film, and Television
Degree Audits are available through MyUCLA for students who entered fall quarter 2012 and later. Students who entered prior to fall quarter 2012 should make an appointment with their department counselor in the Student Services Office, 103 East Melnitz Building. Students entering as freshmen receive a written degree check on achieving junior standing; those entering as juniors receive a degree check on entry. Students may initiate or request an updated degree check by making an appointment with their department counselor.

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; engineering; music; nursing; 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 file a request to graduate in absentia, with 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.

**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:

- **Letters and Science**  
  Registrar’s Office, 1113 Murphy Hall
- **Arts and Architecture**  
  Student Services, 2200 Broad Art Center
- **Engineering**  
  Academic and Student Affairs, 6426 Boelter Hall
- **Music**  
  Student Services and Enrollment Management, 1642 Schoenberg Music Building
- **Nursing**  
  Undergraduate Programs, 2-147 Factor Building
- **Public Affairs**  
  Student Services, 3250 Public Affairs Building
- **Theater, Film, and Television**  
  Student Services, 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 services 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.

**Change of Name**

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

Patricia A. Turner, Senior Dean/Vice Provost of Undergraduate Education
Miguel A. García-Garibay, Dean of Physical Sciences
Darnell M. Hunt, Dean of Social Sciences
David C. Schaberg, Dean of Humanities
Victoria L. Sork, Dean of Life Sciences

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 28,970 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** serves as the 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 Schol-
arships, 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 109 majors leading to the Bachelor of Arts or Bachelor of Science, as well as to master’s and doctorate degrees. In addition, the College offers more than 80 undergraduate minors.

For a complete list of College of Letters and Science degrees, see the Majors and Degrees chapter.

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**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.

**Degree Requirements**

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<th>University Requirements</th>
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<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>
<th>College Requirements</th>
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<tbody>
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<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>Writing I</td>
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<td>5. Quantitative Reasoning</td>
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<td>Foundations of Arts and Humanities</td>
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<td>Foundations of Society and Culture</td>
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<td>Foundations of Scientific Inquiry</td>
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<tr>
<th>Department Requirements</th>
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<tr>
<td>1. Preparation for the Major</td>
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<td>2. The Major</td>
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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
UCLA. See Degree Requirements in the Undergraduate Study chapter for details.

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) 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 (or any higher-number course except 19, 71SL, 72SL, 89, 98XA, 98XB, 99, 103A-103B-103C, 105A-105B-105C, 189, 189HC, 195, 197, 199)
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- 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 2020, 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>Area</th>
<th>Requirement</th>
<th>Courses</th>
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<tbody>
<tr>
<td>Foundations of the Arts and Humanities</td>
<td>1 course</td>
<td>Literary and Cultural Analysis, Philosophical and Linguistic Analysis, Visual and Performance Arts Analysis and Practice</td>
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<tr>
<td></td>
<td></td>
<td>Total = 15 units minimum</td>
</tr>
<tr>
<td>Foundations of Society and Culture</td>
<td>1 course</td>
<td>Historical Analysis, Social Analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total = 15 units minimum</td>
</tr>
<tr>
<td>Foundations of Scientific Inquiry</td>
<td>2 courses</td>
<td>Life Sciences, Physical Sciences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total = 18 units minimum (17 min. fall 2019–spring 2020)</td>
</tr>
<tr>
<td>Total GE</td>
<td>10 courses</td>
<td>48 units minimum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(10 courses/47 units minimum F19-S20)</td>
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Advanced Placement Examination Credit

Students may not use Advanced Placement (AP) Examination credit to satisfy the College 10-course foundational area general education requirement. See the College AP Table. Consult with a departmental adviser for applicability of AP credit toward course equivalencies or satisfaction of preparation for the major requirements.

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 College GE requirements. Written verification from the dean at the other UC campus is required. Consult with a College 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.

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 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.

**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.

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. 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:

- 19 (Fiat Lux)
- 88S (Undergraduate Student Initiated Education [USIE] seminars)
- 89 and 189 (honors seminars)
- 89HC and 189HC (honors contracts)
- M97X (PEERS lectures)
- 98X, 98XA, and 98XB (PEERS laboratories)
- 99 (student research tutorials)
- 190 (research colloquia)
- 193 (journal club seminars)
- 194 (research group or internship seminars)
- Honors Collegium 101A through 101J
- Mathematics 71SL and 72SL
- Science Education 1SL and 10SL

**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 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 48 units of credit toward the degree in addition to the 8 units maximum allowed for the 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 61A, 160A through 161A, 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 the following introductory statistics courses: Statistics 10, 12, 13 (or former 10H, 11, or 14), or any equivalent course taken at UCLA or 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 department.

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 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 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 five 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 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 (3.929 GPA or better) for summa cum laude, the next five percent (3.866 GPA or better) for magna cum laude, or the next 10 percent (3.752 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 stan-
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.

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**David Geffen School of Medicine**

Kelsey C. Martin, 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
- Medicine MD
- Microbiology, Immunology, and Molecular Genetics MS, PhD
- Molecular and Medical Pharmacology MS, PhD
- Molecular, Cellular, and Integrative Physiology PhD
- Neurobiology MS, CPhil, PhD
- Neuroscience PhD
- Physics and Biology in Medicine MS, PhD
- Psychiatry and Biobehavioral Sciences Clinical Psychology Internship Certificate

**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 coursework. 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, neuropharmacology, brain imaging, clinical research, health policy, and sociocultural studies of human behavior and its disorders.

Graduate School of Education and Information Studies

Marcelo M. Suárez-Orozco, Dean

Graduate School of Education and Information Studies
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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
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

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 students are explained in the Graduate Study chapter. See the Graduate Division admissions website.
Departments 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 dedicated 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. HERI's 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, Dean

Henry Samueli School of Engineering and Applied Science
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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, manufacturing 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 MEng, online MS, Engr
Undergraduate Admission

Applicants for admission to the school must satisfy the UC admission requirements as outlined in the Undergraduate Study chapter. Students must apply directly to the Henry Samueli School of Engineering and Applied Science by selecting one of the majors within the school or the undeclared engineering option. In the selection process, many elements are considered including grades, test scores, and academic preparation.

Applicants are accepted at either the freshman or junior level.

Admission as a Freshman

Freshman applicants must satisfy the examination requirement described in the Undergraduate Study chapter and should take required tests by the December test date, since scores are part of the review process. Applicants should instruct testing agencies to send results directly to Undergraduate Admission.

Applicants must submit scores from an approved core test of mathematics, language arts, and writing. This requirement may be satisfied by taking either the ACT with Writing test, the SAT Reasoning Test (last administered January 2016), or the SAT with Essay test. Applicants are strongly encouraged to also take the following SAT subject tests: Mathematics Level 2, and a laboratory science test (Biology E/M, Chemistry, or Physics) that is closely related to the intended major.

Freshman applicants must meet the UC subject, scholarship, and examination requirements described on undergraduate admission.

Credit for Advanced Placement Examinations. Students may fulfill part of the school requirements with credit allowed at the time of admission for College Board Advanced Placement (AP) Examinations with scores of 3, 4, or 5. Students with AP Examination credit may exceed the 213-unit maximum by the amount of this credit. AP Examination credit for freshmen entering in fall quarter 2019 fulfills requirements as published on the school AP table.

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. Applicants 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.

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.

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.

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– 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).

**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 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.
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 filling 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 applica-
ble 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 3.899 or better) for summa cum laude, next five percent (GPA of 3.839 or better) for magna cum laude, and the next 10 percent (GPA of 3.715 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 3.899 GPA for summa cum laude, 3.839 for magna cum laude, and 3.715 for cum laude. For all designations of honors, students must have a minimum 3.25 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 27 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, nanoelectromechanical/microelectromechanical systems (NEMS/MEMS), 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 the 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.
Herb Alpert School of Music
Eileen L. Strempel, 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 Jan Popper Theater (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 the 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 concentrations in composition and performance for the Music major, as well as a major in Music Education. The Musicology Department offers students a broad understanding of the history and culture of music.

The school is also home to two 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.

Information regarding academic programs is available from the Office of Student Services and Enrollment Management, 1642 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, MA, MM, CPhil, DMA, PhD
- Music Composition BA
- Music Education BA
- Musicology BA, MA, CPhil, PhD

Undergraduate Minors
- 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 (or any higher-number course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A-
  - 103B-103C, 105A-105B-105C, 189, 189HC, 195, 197, 199)
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- 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 Services and Enrollment Management). 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.

**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 Services and Enrollment Management, 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 upon 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 Services and Enrollment Management 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 Services and Enrollment Management 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 Services and Enrollment Management 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.
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, Dean
Anderson Graduate School of Management
F407 Mullin Management Commons
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 D. and Lori W. Fink Center for Finance and Investments; 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 Applied Management Research Program (AMR), Global Access Program (GAP), Entrepreneurship Bootcamp for Veterans with Disabilities, Leaders in Sustainability Certificate Program, Management Development for Entrepreneurs (MDE), 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, Interim 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 dis-advantaged, 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 students 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.

Bixby Center on Population and Reproductive Health

The Bixby Center on Population and Reproductive Health was established in 2001 at the Fielding School of Public Health 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 of Public Health 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 targeted 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 UCLA Center for Global and Immigrant Health was established in 2008 and includes faculty members from departments in the schools of public health, 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 members have active research collaborations in more than 50 countries, and several work both with immigrant commu-
ties in California and in the countries of origin of these communities. The center offers a regular seminar series and a Global Health Certificate 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 of Public Health 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 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 of Public Health 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 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 services provider training; public policy research and analysis; and technical assistance and support to community providers, agencies, and policymakers.

**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 of Public Health 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 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, inter-
national, 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 medi-
cine, environmental health sciences, epidemiology, geron-
tology, 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 the competencies of frontline 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.
This new center launched in October 2017.

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 find-
ings 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 research-
ers study racism and its relationship to health inequities,
which intervention strategies most effectively address con-
tribution of racism to specific health inequities, and what
are effective ways to teach public health students about rac-
isim. Affiliates represent disciplines of public health, history,
medicine, urban planning, sociology, and other areas.

Global Media Center for Social Impact

The Fielding School of Public Health has established an
innovative center to increase awareness of important health
issues and improve the well-being of people throughout
the world by harnessing the storytelling power of television,
film, music, and new media.

By collaborating with the entertainment industry and news
media, the Global Media Center for Social Impact (GMI)
helps content creators and reporters craft compelling sto-
ries that accurately address a full range of public health
issues—from the social determinants of health to climate
change and early childhood health—with the goal of
improving global health.

The center is ideally poised to engage the entertainment
industry in creating storylines by linking filmmakers, writ-
ers, and other industry types with the experts and extensive
resources of the school. The center also collaborates with
media organizations and producers around the globe to
promote exceptional storytelling, effective reporting, and
interactive new media content that can help move research
on population health from evidence to impact.

Southern California NIOSH Education
and Research Center

The purposes of the Region IX Southern California NIOSH
Education and Research Center are to: educate profes-
sionals in the various disciplines of occupational health and
safety; provide 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 our 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 occupa-
tional safety and health problems; and educate non-aca-
demic stakeholders including business, labor, and
vulnerable worker populations.

The characteristics of the center are embodied in a coordi-
nated, interdisciplinary set of professional education, con-
tinuing education, research, and outreach activities that
have a positive impact on the region’s and nation’s occupa-
tional health and safety practice.

The center has five programs at UCLA, one at UC Irvine, and
two center-wide programs. The UCLA programs are Indus-
trial Hygiene, Occupational and Environmental Health
Nursing, Center Administration and Planning, Continuing
Education, and Outreach. UC Irvine hosts the Occupa-
tional 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 of Public Health, 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.

Meyer and Renee Luskin School of Public Affairs

Gary M. Segura, 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 non-governmental 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 I
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, 3250 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.

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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.

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 earned while in residence at the school. A minimum of 24 upper-division units must be completed in the major while in residence at the school.

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).

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 (or any higher-number course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A-103B-103C, 105A-105B-105C, 189, 189HC, 195, 197, 199)
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- 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 2020, 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.

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### General Education Requirements

<table>
<thead>
<tr>
<th>Foundations of the Arts and Humanities</th>
<th>1 course</th>
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<tbody>
<tr>
<td>Literary and Cultural Analysis</td>
<td>1 course</td>
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<tr>
<td>Philosophical and Linguistic Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis</td>
<td>1 course</td>
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<tr>
<td>Practice</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>15 units minimum</strong></td>
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<table>
<thead>
<tr>
<th>Foundations of Society and Culture</th>
<th>1 course</th>
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<tbody>
<tr>
<td>Historical Analysis</td>
<td>1 course</td>
</tr>
<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>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15 units minimum</strong></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Foundations of Scientific Inquiry</th>
<th>2 courses</th>
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</thead>
<tbody>
<tr>
<td>Life Sciences</td>
<td>2 courses</td>
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<tr>
<td>Physical Sciences</td>
<td>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 2020, 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>
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<tr>
<td><strong>Total</strong></td>
<td><strong>18 units minimum (17 min. fall 2019–spring 2020)</strong></td>
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<table>
<thead>
<tr>
<th><strong>Total GE</strong></th>
<th>10 courses/48 units minimum</th>
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<tbody>
<tr>
<td></td>
<td>(10 courses/47 units minimum F19-S20)</td>
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</tbody>
</table>

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### 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 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 pre-major 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 com-
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 specific restrictions under 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.

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**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, 3250 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 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 for *summa cum laude*, the next five percent for *magna cum laude*, or the next 10 percent 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. The institute’s 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’s 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, 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. The school’s 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 Enrollment Management, 8260 Broad Art Center.

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 I, MArch II, MA, PhD
- Art BA, MFA
- Culture and Performance MA, PhD
- Dance BA, MFA
- 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.

<table>
<thead>
<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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<tr>
<td>2. American History and Institutions</td>
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<tr>
<td>School Requirements</td>
</tr>
<tr>
<td>1. Unit</td>
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<tr>
<td>2. Scholarship</td>
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<tr>
<td>3. Academic Residence</td>
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<tr>
<td>4. Writing Requirement</td>
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<tr>
<td>Writing I</td>
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<tr>
<td>Writing II</td>
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<tr>
<td>5. Quantitative Reasoning</td>
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<tr>
<td>6. Foreign Language</td>
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<tr>
<td>7. Upper-Division Nonmajor Courses</td>
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<tr>
<td>8. Diversity</td>
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<tr>
<td>9. General Education</td>
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<tr>
<td>Foundations of Arts and Humanities</td>
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<tr>
<td>Foundations of Society and Culture</td>
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<tr>
<td>Foundations of Scientific Inquiry</td>
</tr>
<tr>
<td>Department Requirements</td>
</tr>
<tr>
<td>1. Preparation for the Major</td>
</tr>
<tr>
<td>2. The Major</td>
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</tbody>
</table>

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.

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 (or any higher-number course except 19, 71SL, 72SL, 88S, 89, 89HC, 98XA, 98XB, 99, 103A-103B-103C, 105A-105B-105C, 189, 189HC, 195, 197, 199)
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- 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.

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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.

**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. 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 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 3.943 or better) for *summa cum laude*, the next five percent (GPA of 3.890 or better) for *magna cum laude*, or the next 10 percent (GPA of 3.825 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, 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 resi-
dent 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, anesthesia, 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 School of Dentistry.

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### School of Law

Jennifer L. Mnookin, 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 power- less and homeless; the many permutations of a race-con- scious 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 cur-riculum. 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 first-year lawyering skills course, taught by experienced lawyers who are full-time faculty members, helps students develop legal research capabilities and writing prowess by featuring opportunities for students to interview and counsel clients and draft legal memoranda, contracts, and advice letters.

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 17,000 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:

- Juris Doctor JD
- Master of Laws LLM
- Doctor of Juridical Science SJD

**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/Public 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](#).

**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 65 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 that promotes optimal learning with an extensive course on legal research and writing, in addition to the traditional courses on common law and other foundational subjects. The year-long course gives students the opportunity to explore the relationship between legal analysis and lawyering tasks such as effective legal writing, oral advocacy, and legal research. It is taught alongside 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.

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).

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. The course of study emphasizes mastery of five areas: history (centered on the Constitution but focused as well on a variety of other legal documents and experiences); theory (critical race theory, jurisprudence, and theoretical advances outside the legal academy); comparative subordination (understanding of the multiracial nature of American race relations, as well as how racial inequality is affected by discrimination based on gender, sexual orientation, and disability); doctrine (case and statutory law and its interpretation); and practice (including legal practice, community service, and lawyers’ use of social science inquiries and methods).

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, Technology, Sports Law**

Los Angeles is the center of the entertainment industry. Recognizing the unique ability to offer a specific program in that arena, the school launched the Media, Entertainment, Technology, and Sports Law specialization in 2005. 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. Students represent a broad range of political and ideological perspectives, and often pursue additional specializations and joint degrees. Graduates have received prestigious public interest law fellowships, including the Skadden and Equal Justice Works postgraduate fellowships. They work in a variety of settings, including nonprofit organizations, government agencies, think tanks, and private public interest firms. Graduates’ impact is far reaching as they 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. The course of study emphasizes mastery of five areas: history (centered on the Constitution but focused as well on a variety of other legal documents and experiences); theory (critical race theory, jurisprudence, and theoretical advances outside the legal academy); comparative subordination (understanding of the multiracial nature of American race relations, as well as how racial inequality is affected by discrimination based on gender, sexual orientation, and disability); doctrine (case and statutory law and its interpretation); and practice (including legal practice, community service, and lawyers’ use of social science inquiries and methods).

**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, including a course on law and sexuality and a sexual orientation workshop taught by Williams Institute teaching fellows.

Media, Entertainment, Technology, and Sports Law

Los Angeles is the center of the entertainment industry. Recognizing the unique ability to offer a top-notch program in that arena, the school launched the LLM Media, Entertainment, Technology, and Sports Law specialization in 2005. 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.

Programs and Centers

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. It is the premier institutional setting for the study of the intersection between race and the law. 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. Recognizing the considerable debate about the proper role of the law in creating and sustaining a just society—and defining public interest broadly to include all interests underrepresented by the private market—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.

Health and Human Rights Law Project

The Health and Human Rights Law Project seeks to improve global health by using a framework grounded in international human rights law. Through multidisciplinary research, training, and mentorship, the project examines the relationship between health and human rights and fosters the next generation of leaders working in this area. With an emphasis on issues pertaining to sexuality, gender, and HIV/AIDS, the project focuses on health issues around which rights-claiming has particular salience.

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.

Negotiation and Conflict Resolution Program

The Negotiation and Conflict Resolution Program promotes an interdisciplinary approach to understanding and managing the competition for scarce resources in legal, business, and interpersonal contexts. The program’s broad mission includes the study of private and public transactions and disputes in domestic and international arenas. It brings together a community of scholars and students from a variety of fields across UCLA and throughout Southern California with overlapping scholarly, teaching, and practice interests.

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 bet-
ter 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, the 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 Program for Food Law and Policy

The Resnick Program 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-RAND Center for Law and Public Policy

The UCLA-RAND Center for Law and Public Policy is a unique partnership of UCLA School of Law and RAND Corporation. Its mission is to produce innovative legal scholarship that is grounded in multidisciplinary empirical analysis to guide legal and public policymakers in the twenty-first century. It was created to support collaborative research and to evolve with the doctrinal, institutional, and professional changes in the law.

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 Center for Media, Entertainment, Technology, and Sports Law

The Ziffren Center 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, Dean
School of Nursing
2-147 Factor Building
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 Writing I and Writing II requirements. No transfer student is admitted to the school without completing, with a C or better grade (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) 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 (or any higher-number course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A-103B-103C, 105A-105B-105C, 189, 189HC, 195, 197, 199)
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- 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.

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.

### General Education Requirements

<table>
<thead>
<tr>
<th>Foundations of the Arts and Humanities</th>
<th>1 course</th>
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<tbody>
<tr>
<td>Literary and Cultural Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td>Philosophical and Linguistic Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis</td>
<td>1 course</td>
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</tbody>
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**Total = 15 units minimum**

<table>
<thead>
<tr>
<th>Foundations of Society and Culture</th>
<th>1 course</th>
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<tbody>
<tr>
<td>Historical Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td>Social Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td>Third course from either subgroup</td>
<td>1 course</td>
</tr>
</tbody>
</table>

**Total = 15 units minimum**

<table>
<thead>
<tr>
<th>Foundations of Scientific Inquiry</th>
<th>2 courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Sciences</td>
<td>2 courses</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>2 courses</td>
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</tbody>
</table>

**Total = 18 units minimum**

**Total GE = 10 courses/48 units minimum**

One of the 10 courses may be a GE-approved Writing II course in an appropriate foundational area selected from a list published in the Schedule of Classes and available in the Student Affairs Office.

Preparation for the major courses may overlap with GE foundation courses.

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 without the formal permission of the assistant dean of Student Affairs—renders students liable to be withdrawn from UCLA or other appropriate disciplinary action.

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 (B) or better and have attained at least a 3.0 (B) 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 3.929 or better) for summa cum laude, the next five percent (GPA of 3.866 or better) for magna cum laude, or the next 10 percent (GPA of 3.752 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
Teri E. Schwartz, Dean

School of Theater, Film, and Television
102 East Melnitz Building
310-825-5761
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 international 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

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) 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– 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.

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
recruitor or see the Schedule of Classes.

### General Education Requirements

**Foundations of the Arts and Humanities**
- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis
- and Practice
- No more than two courses from any one subgroup.
- Total = 25 units minimum

**Foundations of Society and Culture**
- Historical Analysis
- Social Analysis
- Third course from either subgroup
- Total = 15 units minimum

**Foundations of Scientific Inquiry**
- Life Sciences
- Physical Sciences
- 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.

### 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 3.936 or better) for summa cum laude, the next five percent (GPA of 3.823 or better) for magna cum laude, and 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 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 theerequisites 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/NP) 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 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 M146) 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. Graduate students may petition to apply up to two XLC courses toward the master’s degree. For more details, see Concurrent Enrollment in the Academic Policies chapter.
Aerospace Studies

AEROSPACE STUDIES — AIR FORCE ROTC

218 Student Activities Center
Box 951611
Los Angeles, CA 90095-1611

Aerospace Studies—Air Force ROTC
310-825-1742
AFROTC e-mail
Timothy C. Reynolds, MBA, MA, Colonel, Chair

Faculty Roster
Professor
Timothy C. Reynolds, MBA, MA, Colonel

Adjunct Assistant Professors
Jonathan R. Liscombe, MA, Major
Kevin Plascencia, BIS, 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 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 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. 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 all 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 perspective. 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, officership, 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

1308 Rolfe Hall
Box 951545
Los Angeles, CA 90095-1545

African American Studies
310-825-9821
Department e-mail

Marcus A. Hunter, PhD, Chair

Faculty Roster

Professors
Walter R. Allen, PhD
Devon W. Carbado, JD (Honorable Harry Pregerson Endowed Professor of Law)
Cheryl I. Harris, JD (Rosalinde and Arthur Gilbert Foundation Endowed Professor of Civil Rights and Civil Liberties)
Darnell M. Hunt, PhD
Marcus A. Hunter, PhD (Scott Waugh Endowed Professor of Social Sciences)
Robin D. G. Kelley, PhD
Kathleen A. Lytle Hernández, PhD
Steven D. Nelson, PhD
Pedro A. Noguera, PhD

Associate Professors
Bryonn R. Bain, JD
Scott D. Brown, PhD
Aisha K. Finch, PhD
Lorrie A. Frasure-Yokley, PhD
Yogita Goyal, PhD
Sarah Haley, PhD
Peter J. Hudson, PhD
Marcus A. Hunter, PhD (Scott Waugh Endowed Professor of Social Sciences)
Gaye T. Johnson, PhD
Uri G. McMillan, PhD
Satyja U. Noble, PhD
Jemima Pierre, PhD
Caroline A. Streeter, PhD

Assistant Professors
Karida L. Brown, PhD
Ugo Edu, PhD
Kyle T. Mays, PhD
Sobukwe Odinga, PhD
Courtney S. Thomas, PhD
S.A. Smythe, 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 humanitarian 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 M5, 6, M10A.

Transfer Students

Transfer applicants to the African American Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to 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.

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 Chicano 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, M135A, M135B, 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, M182A, M182B, M182C, M183A, M183B, M183C, 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.

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, and 199 may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied
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

Lower-Division Courses

1. Introduction to Black Studies. (8) Lecture, three hours; discussion, one hour. Introduction of methods, theories, conceptual frameworks, and key debates in black studies. Intermigration 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.

2. African American History. (5) (Same as History 182.) Lecture and discussion, four hours. Survey of African American history from the slaveholders to the 1960s. P/NP or letter grading.

3. African American Philosophy. (5) (Same as Philosophy 186.) Seminar, four hours; discussion, one hour. Focus on origins and development of black communities, competing theories and research findings, definitions and characteristics of contemporary issues. Letter grading.

4. Trends in Black Intellectual Thought. (5) Lecture, four hours; discussion, one hour. Overview of major intellectual trends that have shaped ways in which Afro-American thinkers have interpreted experiences of blacks in U.S., drawing from such fields as history, philosophy, and literature. Letter grading.

5. Elementary African American Studies. (5) Lecture, four hours; discussion, one hour. Survey of African American society and culture; emphasis on contemporary cultural environments, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

6. African American Theater History: Slavery to 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 artists in America from minstrel stage to rise of American musical. Letter grading.

7. African American Theater History: Minstrel Stage to Rise of American Musical. (4) (Same as Theater M103B.) 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.

8. Modern African American Drama: Harlem Renaissance to Black Arts Movement. (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 these plays were created and critical essays that illustrate development of African American playwrights and their significant involvement in creation of diversified American theatrical tradition. Letter grading.

9. Early American African Literature. (5) (Same as English M104A.) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Introductory survey of African American literature from New World Era to 1960s, including oral materials (ballads, blues, speeches) and fiction, poetry, and essays by authors such as Phillis Wheatley, Frances Harper, Frederick Douglass, Harriet Jacobs, Charles Chesnutt, Booker T. Washington, and Pauline Hopkins. P/NP or letter grading.

10. African American Literature from Harlem Renaissance to 1960s. (5) (Same as English M104E.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of 20th-century African American literature from late World War I period to 1960s, including oral materials (ballads, blues, speeches) and fiction, poetry, and essays by authors such as Langston Hughes, W.E.B. Du Bois, Zora Neale Hurston, Richard Wright, Ann Petry, James Baldwin, Gwendolyn Brooks, and Ralph Ellison. P/NP or letter grading.

11. 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 literary expression from late 1960s 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, Nikki Giovanni, Alice Walker, Toni Morrison, Ishmael Reed, Audre Lorde, Paule Marshall, and Ernest Gaines. P/NP or letter grading.

12. 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. Author may include Toni Morrison, August Wilson, Octavia Butler, Alice Walker, Smith, June Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.

13. 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, format, 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.

M103J. Contemporary Black Theater: Modern Civil Rights Era to Black Lives Matter and Beyond. (4) (Same as Theater M103J.) Lecture, three hours. Exploration of social and historical 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 about Black Consciousness? Where does our knowledge of self come from? Introductory set of theoretical tools to begin to answer such questions of consciousness, especially as they concern status of black people in contemporary racial-economic context of U.S. and elsewhere in African diaspora. Drawing on interdisciplinary black studies scholarship of range of writers that may include ibs B. Wells, Carter G. Woodson, Claudia Jones, W.E.B. Du Bois, Ngugi wa Thiong’o, Steve Biko, Frantz Fanon, Walter Rodney, George Jackson, Angela Davis, Jacob H. Carruthers, Stuart Hall, and Sylvia Wynter, to understand function of ideology, language, and ideology in creation of social meaning and role of literature, media, education, and popular culture in organization of black consciousness and exile or letter grading.

105B. Issues in Pan-African 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 work 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. Application of biographical and archival research to students’ own lives and family history through researching and writing short autobiographical text. Students gain experience in conducting interview and oral histories and generational 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 culture. Topics include major issues facing Africa today and in the future—from political discussions on independence, geopolitics of aid and development, cultural trajectories with Africa and the West, modern migration, and debates on racial and geographic divide between Arab north and south of Sahara. P/NP or letter grading.

M107. Cultural History of Rap. (5) (Same as Ethnic Studies M115 and Global Jazz Studies M113.) 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, 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 symbolize political tendencies of freedom and democratic values, threat to order and civil society, possibility of integration and racial harmony, black liberation and nationalism, conservatism, surrealism, spiritualism, to the present? What about jazz enables people to read their political aspirations and hopes in what is primarily instrumental, improvised music? Exploration of history of ideas and politics of jazz, and how writers, activists, and musicians understood politics of jazz. Exploration of political imaginations—here and abroad—in particular in jazz, to symbolize so many different political tendencies. P/NP or letter grading.

M109. Women in Jazz. (4) (Same as Ethnomusicology M109 and Gender Studies M109.) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied music 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.

M111. Ellingtonia. (4) (Same as Ethnomusicology M111 and Global Jazz Studies M111.) Lecture, three hours; discussion, one hour. Examination of processes and histories of major themes and critiques of Pan-African thought, including history, migration patterns, and urbanism to determine their impact on development of African American music in California. Concurrently scheduled with course CM121A. P/NP or letter grading.

CM111. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Agency. (4) Seminar, four hours; discussion, one hour. Exploration of practices and policies, art, and activism, and other forms of agency engaging school-to-prison pipeline. Concurrently scheduled with course CM121. P/NP or letter grading.

CM114C. African American Political Thought. (4) (Same as Labor and Workplace Studies M114C and Political Science M180A.) Lecture, three or four hours; discussion, one hour. Examination of historical and analytical examination of African American music in California, including history, migration patterns, and urbanism to determine their impact on development of African American music in California. Concurrently scheduled with course CM121A. P/NP or letter grading.

M113. Cultural History of Rap. (5) (Same as Ethnic Studies M115 and Global Jazz Studies M113.) Lecture, four hours; discussion, one hour. Examination of processes and histories of major themes and critiques of Pan-African thought, including history, migration patterns, and urbanism to determine their impact on development of African American music in California. Concurrently scheduled with course CM121A. P/NP or letter grading.

M114. Ethnic Politics: African American Politics. (4) (Same as Political Science M182.) Lecture, three or four hours; discussion, one hour (when scheduled). Examination of historical and contemporary developments of modern prison industrial complex in U.S., with attention to impact of prison industries on immigrants, including undocumented residents, homeleass populations, women, African Americans, and transgender nonconforming and lesbian, gay, bi-sexual, and transgender communities. Why does U.S. have largest prison population in world? What historical and ideological conditions and ideologies gave rise to this massive explosion in U.S. prisoner population? What policies and structures maintain and expand imprisonment? How do politicians use imprisonment as response to economic transformations and perceived social disorders? How is current crisis analogous to or distinct from regimes of racialized punishment in prior historical moments? Letter grading.

M114E. African American Art before 1900. (4) (Same as Art History CM135A.) 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 African American life and society. Concurrently scheduled with course CM235A. P/NP or letter grading.

CM135B. African American Art, 1900 to 1963. (4) (Same as Art History CM135B.) Lecture, three hours. Detailed inquiry into work of African American artists from period of African Exposition to Washington, D.C., focusing on Washington, D.C. in context of social, political, and cultural engagement, as well as in codification of modern black life in U.S. Concurrently scheduled with course CM235B. P/NP or letter grading.

140. Radical Black Imaginaries: Politics, Identity, and Struggle. (4) Lecture, four hours. Exploration of some more powerful visions for freedom, liberation, and radical social transformation. How do African Americans think about political struggles, intellectual movements, and creative expressions that formed part of radical black imagination during last century. Following of black diaspora artists and activists as they struggled for freedom within and beyond movements against colonialism and racial oppression, for Pan-Africanism, feminism, and Negritude, and through understandings and forms like codification of how black activists, artists, and intellectuals in various parts of globe have worked to envision and enact real possibilities for sovereignty and liberation both at home and abroad. Letter grading.

M141. 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, citizenship formation, gender identities, reproduction, and role of law. How have intersecting forms of oppression impacted black women’s historical lives? How is difference constructed through interrelated and intersectional oppressions and how does gender? 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 heteronormativity, as well as black women’s participation in and challenge to social movements, including suffrage, women’s liberation, civil rights, and black power. Examination of investigation of black women’s intellectual history, including their cultural productions. Letter grading.

M142. Race, Gender, and Punishment. (4) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M142.) Seminar, four hours. Interdisciplinary examination of historical and contemporary development of modern prison industrial complex in U.S., with attention to impact of prison industries on immigrants, including undocumented residents, homeless populations, women, African Americans, and transgender nonconforming and lesbian, gay, bi-sexual, and transgender communities. Why does U.S. have largest prison population in world? What historical and ideological conditions and ideologies gave rise to this massive explosion in U.S. prisoner population? What policies and structures maintain and expand imprisonment? How do politicians use imprisonment as response to economic transformations and perceived social disorders? How is current crisis analogous to or distinct from regimes of racialized punishment in prior historical moments? Letter grading.

M144. Ethnic Politics: African American Politics. (4) (Same as Political Science M182.) Lecture, three or four hours; discussion, one hour (when scheduled). Examination of political and intellectual movements, and processes involving one or more courses or one upper-division course on race or ethnicity from history, psychology, or sociology. Required. Political Science 40. Designed for juniors/seniors. Emphasis on dynamics of minorities in U.S., touching on conditions facing racial and ethnic groups, with black Americans being primary case for analysis. 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 English M161G.C.) Lecture, three or four 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 M184A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History, politics, and identity of African Americans in Spanish and Lusophone Caribbean, South America, and Central America. Exploration of issues of identity in context of Afro/Latino migration to U.S. P/NP or letter grading.

M154D. Black Experience in Latin America and Caribbean II. (4) (Same as Political Science M184B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examinations of issues regarding race and ethnicity in Latin America, with emphasis on comparisons to U.S. and within Latin America. Covers populations of African and indigenous origins, with emphasis on former. P/NP or letter grading.

M155A. Comparative Slavery Systems. (4) (Same as History 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 origins. P/NP or letter grading.

M158B-M158C. Introduction to Afro-American History. (4) (Same as History M150B-M150C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Afro-American history with emphasis on great transitions of Afro-American life: transition from Africa to New World slavery, transition from slavery to freedom, and transition from rural to urban milieu. P/NP or letter grading.

M158E. African American Nationalism in First Half of 20th Century. (4) (Same as History M150E.) 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 M144P and Asian American Studies M169.) 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 U.S., in popular culture, and race and identity. P/NP or letter grading.


M165. Sociology of Race and Labor. (4) (Same as Labor and Workplace Studies M165 and Sociology M165.) Lecture, three hours; discussion, one hour. Limited to classes of 40 or fewer. Examines relationship between race/ethnicity, employment, and U.S. labor movement. Analysis of underlying racial divisions in workforce and how they evolved historically. Considerations of race/ethnicity, employment, 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 unions in effort to overcome these wage and working conditions. Impact of globalization on these dynamics. P/NP or letter grading.

M167. Worker Center Movement: Next Wave Organizing for Justice for Immigrant Workers. (4) (Same as Asian American Studies M163, Chicana and Chicano Studies M130, and Labor and Workplace Studies M167.) Seminar, three hours. 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 worker centers in promoting multiracial and multilingual coalitions and economic and social justice. Transnational cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

M170A. Diasporic Nonfiction: Media Engagements with Memory and Displacement I. (4) (Same as Chicana and Chicano Studies M140A.) Seminar, three hours. Video production course, with emphasis on autobiographical, critical, and performance-based modes of nonfiction writing. Students create nonfiction work using video techniques and focus on how diasporic filmmakers who have grappled with suppressed collective memories of displacement, trauma, exile, and migration. What does it mean to make diasporic documentaries? How do they direct our understanding of this history? Introduction to concepts from films and readings. Production assignments and screenings, with focus on questions of how to represent historical, cultural, and personal experiences. P/NP or letter grading.

M170B. Diasporic Nonfiction: Media Engagements with Memory and Displacement II. (4) (Same as Chicana and Chicano Studies M140B.) Seminar, three hours. Enforced requisite: course M170A. Students complete 20- to 30-page papers about selected issues or experiences central to everyday lives of collective diasporic peoples. They learn to propose, record, edit, and distribute one socially engaged nonfiction piece. Experience of young, Diasporic people who seek to become healthcare professionals so they may be repeated for credit with permission of instructor. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4) (Same as Gender Studies M172 and Psychology M172.) 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.

M173. Nonviolence and Social Movements. (4) (Same as Chicana and Chicano Studies M173 and Labor and Workplace 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 workshops, film viewings, guest speakers, and readings. Exploration of some historic contributions of civil rights struggles and role of nonviolent action throughout recent U.S. history. Examination of particular lessons from past movements as they impact social change organizing in Los Angeles. P/NP or letter grading.

M174. Interracial Differences in 20th-Century Black American. (4) Lecture, four hours. Discussion of evolution of black divergence within African American community by focusing on evolution of differences—specifically class differences—that have minimized black
M183A. Language, Literacy, and Human Development Ethnography (3) (Same as Education M183A) Fieldwork, six hours. Enforced corequisite: course M194A. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M183B. Culture, Gender, and Human Development Ethnography (3) (Same as Education M183B) Fieldwork, six hours. Enforced corequisite: course M194B. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M183C. Culture, Communications, and Human Development Ethnography (3) (Same as Education M183C) Fieldwork, six hours. Enforced corequisite: course M194C. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

188A. Special Courses in African American Studies, (4) Lecture, three hours; discussion, one hour. Program-sponsored experimental or temporary courses taught by honored faculty members. May be repeated for credit with topic change. P/NP or letter grading.

188B. Race and Public Policy, (5) 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 gap? Provides students with basic foundation of knowledge for thinking through contemporary debates surrounding policies that seek to redress racial discrimination in U.S. 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, (1) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to conduct USIE 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 188SC. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to conduct USIE 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 course lecture. 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.

190. Directed Research or Senior Project in Afro-American Studies, (2 to 4) Tutorial, four hours. 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 or Senior Project in Afro-American Studies, (2 to 4) Tutorial, to be arranged with faculty member who directs study. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Supervised individual research or investigation of large project under guidance of faculty mentor. Culminating paper or project required. Eight units may be applied toward major requirements. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

M200A. Advanced Historiography: Afro-American, (4) Same as History M200V. Seminar, three hours. May be repeated for credit. S/U or letter grading.

M200B. Political Economy of Race, (4) (Same as History M200E. Seminar, four hours. Examination of historical and theoretical debates around history of African diaspora, especially in their overlapping concerns with organization of race and racial states in contemporary world, development of modern imperialism, 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 territorial expansion; growth of empire; history of finance capital and its discourses of debt; capitalism and history of anti-blackness; racism, neoliberalism, and governmentality; and emergence and content of black radical tradition and its critiques of racial capitalism. S/U or letter grading.

M200C. Black Families and Relationships, (4) (Same as Sociology M202.) Seminar, three hours. Evaluation of social, cultural, and historical forces that affect socialization, stability, and interaction in black intimate relationships, beginning with theoretical framework from black feminism to analysis of economic and other expectations for partners in cohabiting and marriage, and the implications of family life for both middle-class and low-income populations. Exploration of notions of black sexuality, including images of hyper-masculinity and femininity within black family, and other discursive constructions of blackness and authenticity in racial identification. Contribution to greater understanding of black intimate relationships in different contexts, including lesbian and gay identities, Caribbean and other ethnic identities, and inter racial intimacies. S/U or letter grading.

200D. African American Women's History, (4) Seminar, four hours. Historical examination of black women’s experiences in American era to present. Exploration of key themes, including gender formation, sexuality, labor and class, collective action, gender and sexual violence, reproduction, and role of law and ideology. How have intersections of race, gender, and class affected black women’s historical lives? How is difference constructed through interrelated and overlapping ideologies of race and gender? 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 resistance to social movements, including suffrage, women’s liberation, civil rights, and black power. Letter grading.

M200E. Studies in Afro-American Literature, (4) (Same as English M262.) Lecture, four hours. Intensive research and study of themes, issues, and writers in Afro-American literature. Discussions and research on aesthetic, cultural, and social backgrounds of Afro-American writing. May be repeated for credit. S/U or letter grading.
engagement, as well as in codification of modern black life in U.S. Concurrently scheduled with course CM135B. S/U or letter grading.

M240. Assessment and Treatment of African American Families. (3) (Same as Psychiatry 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 supervised evaluation and case management with African American children and families. Letter grading.


M256. Topics in African American Art. (4) (Same as Art History M236.) Seminar, three hours. Requisite: 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.

270A. Survey of Afro-American Research. (4) Seminar, three hours. Overview of research methodologies in humanities and social sciences, with firsthand reports from faculty in various fields. Introduction to research topics has emphasis on training in methodological research. 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 Readings and Tutorials. (4) Tutorial, to be arranged. Provides students with umbrella under which they can pursue specialized interests from which there is insufficient demand to warrant offering formal courses. S/U or letter grading.

597. Preparation for MA Comprehensive Examination. (4 or 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward MA course requirements. S/U grading.

598. Research for and Preparation of MA Thesis. (4 or 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward MA course requirements. S/U grading.

AFRICAN STUDIES
Interdepartmental Program
College of Letters and Science
10256 Bunche Hall
Box 951487
Los Angeles, CA 90095-1487

African Studies
310-206-6571
Program e-mail
W. Harold Torrence, PhD, Chair

Faculty Committee

Hannah C. Appel, PhD (Anthropology)
Eduardo ZáRate, PhD (Education)
Jenima Pierre, PhD (African American Studies, Anthropology)

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 on 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, many students who are interested in one discipline and also have a keen interest in another discipline can design a program that is suitable for their personal 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 Linguistics 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.

Faculty Committee

Hannah C. Appel, PhD (Anthropology)
Eduardo ZáRate, PhD (Education)
Jenima Pierre, PhD (African American Studies, Anthropology)

Allen F. Roberts, PhD (French and Francophone Studies, World Arts and Cultures/Dance)
Pau A. Tavrow, PhD (Community Health Sciences)
Dominic R. Thomas, PhD (Comparative Literature, French and Francophone Studies, Germanic Languages)
W. Harold Torrence, PhD (Linguistics)
William H. Worgner, PhD (History)
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 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 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 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.

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 accomplish 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 collectively 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 distributitional 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 emphasis 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 indep-
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 communication systems course (Anthropology 155 or Linguistics 114); (2) three history and social sciences courses from American Indian Studies C120, C122SL, C130, C175, C178, Anthropology 113Q, 113R, 114P, 114Q, 115Q, 158, Gender Studies 130, History 149A, 149B, 157B, Sociology M161; (3) three humanitarian perspectives on language and expressive culture courses from American Indian Studies 180, Art History 137, 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.
C121. Working in Tribal Communities: Preparing for Fieldwork. (4) Lecture, four hours. Through readings, discussion, and fieldwork, development of skills and practices for fieldwork with tribal communities and organizations. Concurrently scheduled with course C221L. Letter grading.

C122SL. Working in Tribal Communities: Service Learning. (4) Seminar, one hour; fieldwork, four hours. Enrollment limited to 20 students. Requires: course C121L. Recommendations: concurrent enrollment in course C120. Participation in community service learning project within Native American communities and organizations. 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 C222SL. Letter grading.

C1123. Afro-Indigenous History: from Enslavement and Settlement to Black Lives Matter and Indigenous Sovereignty. (4) Same as African American Studies M121L. Lecture, four hours; discussion, one hour. Examination of key episodes in African diasporic history, with an emphasis on Black experiences in the Americas and in the United States, including the historical and contemporary roots of anti-Black racism in the United States. May be repeated with consent of instructor. Letter grading.


140. Federal Indian Law and Policy. (4) Lecture, four hours. Through readings, discussion, and Native guest lectures, introduction to federal Indian law and policy. May be repeated for credit. Concurrently scheduled with course C140. Letter grading.

C145. Contemporary Indigenous Nations. (4) Seminar, three hours. Introduction to contemporary indigenous nations, including social movements, social and corporate internships. May be repeated for credit. Concurrently scheduled with course C218. Tutorial, three hours. Letter grading.

158. Nation Building. (4) Lecture, three hours. Through readings, discussion, and Native guest lectures, introduction to processes of nation building and to current conditions and social and cultural processes of indigenous nations. Concurrently scheduled with course C258. Letter grading.

M187A. Special Topics in American Indian and Gender Studies. (4) Same as Gender Studies M185A. Lecture, three hours. Variable topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. May be repeated for credit. Tutorial, three hours. Only for juniors/seniors in American Indian and southern California. May be repeated for credit. Letter grading.

C195CE. Comparative Approaches to Community and Corporate Internships. (4) Same as American Studies M195CE, Asian American Studies M195CE, Chicana and Chicano Studies M195CE, and Gender Studies M195CE. Lecture, one hour; fieldwork, eight to 10 hours. May be repeated for credit. Letter grading.

197. Individual Studies in American Indian Studies. (2 to 4) Tutorial, three hours. Limited to seniors/juniors. Individual intensive scheduled meetings to be arranged between faculty mentor 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.

198A-198B. Honors Research in American Indian Studies. (4 to 4) Tutorial, one hour; three hours. Course C198A, five hours, is recommended for students preparing to take course C198B, which is enforced requisite to course C198B. Limited to seniors. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in American Indian Studies. (2 to 8) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cul-
Graduate Courses

M200A. Advanced Historical Geography: American Indian Peoples. (4) (Same as History M200W) Lecture, 90 minutes; seminar, 90 minutes. Introduction to culture-histories of North American Indians and review of Indigenous 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 Anthropology M331H) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms—dance, art, song, religious and medicinal ritual—in selected Native American societies, as these traditional and tribal contexts have been translated into contemporary literary texts (fiction, poetry, essay, and drama). Survey, from secondary sources, of interdisciplinary methodological approaches, key theoretical analysis, structural anthropology, 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.

M200D. Economic Principles and Economic Development in Indigenous Communities. (4) (Same as Public Policy M270.) Seminar, two hours; discussion, one hour. Limited to graduate students. Introduction to basic economic concepts and their application to issues of economic development in indigenous communities. Coverage of microeconomic and macroeconomic aspects of economic development as curricular and research experience. Letter grading.

M202. Qualitative Research Design and Methodology for Indigenous Communities. (5) (Same as Health Policy M202 and Nursing M221.) Seminar, three hours. Introduction to some key theoretical themes in American Indian studies and exploration of methods that can be used to incorporate them in research on American Indian cultures, societies, languages, and other issues. Quantitative methods (design, appropriate use), with emphasis on qualitative research methods, ethics, and special considerations in conducting research in American Indian country. Design of research and exploration of feasibility of research topics. 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, social, 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 to successfully work or carry out community service projects 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. Enrolled requisite: course C221. Recommended concurrent course C220. Participation in community service learning project within Native American communities and organizations; an interdisciplinary research course approved by program chair and academic coordinator. Individual contract required. Letter grading.

C228A. American Indian History. (4) Lecture, three hours. Enrolled requisite: course C221. Introduction to Indigenous history of North American Indians and review of Indigenous concepts of history. Stereotypical approach to content and methodologies related to Indian past that is interdisciplinary and multicultural in its scope. Letter grading.


C238A-238B. Tribal Legal Development Clinic. (238A: 3 or 4/ 238B: 1 or 2) Seminar, two hours. Course 238A is enrolled requisite to 238B. Study of temporary legal systems of Native American tribal nations. Detailed examination of several different tribal systems, including Navajo, Cherokee, Iroquois, and Hopi, with emphasis on unique legal re- gimes, comparisons with Anglo-American legal system, changes in tribal systems during period of contact with non-Indians, and relationship between tribes’ federal, state, and local laws and their cul- tures, such as religion and social structure. Independent research paper with focus on contemporary or historic topic required. Concurrently scheduled with Law 529, in Progress (238A) and S/U or letter (238B) grading.

C239. California Indian Health Policy. (4) Lecture, three hours. Enrolled requisite: courses 238A and 238B, or M265A and 265B. 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.

C240. Tribal Community Representation and Advocacy. (4) Lecture, three hours. Enrolled requisite: courses 238A and 238B, or M265A and 265B. Course M267A is enrolled requisite to 267B. 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 (267B) grading.

C248. 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 readings, discussion, and Native guest lecturers. May be repeated for credit with topic change and consent of interdepartmental chair. Concurrently scheduled with course C170. S/U or letter grading.

251. 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 na- tions, primarily of U.S., but elsewhere 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 In- dian law (such as what is Indian country); equal pro- tection issues, as posed by federal Indian legislation; discussions of construction of federal legal tribal sovereignty and its protection; basic questions of fed- eral and state authority within Indian country; and tribal, federal, and state jurisdiction in Indian country. May be concurrently scheduled with Law 267, S/U or letter grading.

M265A-265B. Federal Indian Law I. (1 to 8 each) (Same as Law M265.' ) Lecture, three hours. Requisites: courses 238A and 238B, or M265A and 265B. 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.

M267. Federal Indian Law II. (1 to 8) (Same as Law M382.) Lecture, three hours. Requisites: courses 238A and 238B, or M265A and 265B. Course M267A is enrolled requisite to 267B. 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 (267B) grading.

C268. Healthcare for American Indians. (4) Lecture, two hours; discussion, two hours. Overview 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 In- dian 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, definition of current health-related issues and measures taken to raise health status of American Indian people. Concurrently scheduled with course CM168. 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 readings, discussion, and Native guest lecturers. May be repeated for credit with topic change and consent of interdepartmental chair. Concurrently scheduled with course C170. S/U or letter grading.
**M272. Seminar: Cultural Property Law. (3 or 4)**
(Same as Law M514) 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 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 international 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 regime? How can we balance protection of cultural property against need or desire for its use in creative expression or 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 hours.** 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 breaches 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 research 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) Seminar, three hours.** Introduction to Southern California indigenous societies through readings, discussions, guest lecturers, 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 976 (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 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 Studies. (4 to 8) Tutorial, to be arranged.** S/U or letter 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 310-267-8667**

Barbara M. Van de Wiele, MD, Interim Chair
Daniel J. Cole, MD, Executive Vice Chair
Randolph H. Steadman, MD, MS, Vice Chair
Education
John Shin, MD, Director, Medical Student Education

**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 an anesthetic plan. 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 that they can practice their clinical skills. Students are also expected to attend clinically oriented lectures on a wide range of anesthesiology 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.

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**Anesthesiology**

**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.

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**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.

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**Anthropology**

**College of Letters and Science**

341 Haines Hall
Box 951553
Los Angeles, CA 90095-1553

**Anthropology 310-825-2055**

**Department e-mail**

C. Jason Throop, PhD, Chair
Brooke A. Scelza, PhD, Graduate Vice Chair
Aomar Boum, PhD, Undergraduate Vice Chair

**Faculty Roster**

**Professors**

H. Sammy Ailin, PhD (David O. Sears Presidential Endowed of Social Sciences)
Andrew Apter, PhD
H. Clark Barrett, PhD
Philippe I. Bourgois, PhD, in Residence
Jeffery Brantingham, PhD
M. Kamari Clarke, PhD
Jason De Leon, PhD
Alessandro Duranti, PhD
Daniel M.T. Fessler, PhD
Alan Page Fiske, PhD
Linda C. Garro, PhD
Akhil Gupta, PhD
Laurie K. Hart, PhD
Douglas W. Hallan, PhD
Christopher M. Kelly, PhD
Paul V. Krookstky, PhD
Richard G. Leslie, PhD (Marilyn Beaudry-Corbett Endowed Professor of Mesoamerican Archaeology)
Nancy E. Levine, PhD
Joseph H. Manson, PhD
Norma C. Mendoza-Denton, PhD
Susan E. Perry, PhD
David D. Shorter, PhD
Susan E. Shymovics, PhD
Monica L. Smith, PhD (Navin and Pratima Doshi Professor of Indian Studies)
James W. Stigler, PhD
Russell Thornton, PhD
C. Jason Throop, 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 Harness 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. Ortner, PhD
Wendell H. Oswalt, PhD
Merrick Posnansky, PhD
the study of humankind. One of the strengths of anthropology, the broadest of the social sciences, is its cross-disciplinary approach; it links the life sciences, the humanities, and social 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:

**Scope and Objectives**

**Anthropology** is the study of human cultures and the natural, social, ideological, economic, and political environments in which they operate 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, analytic, and topical 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 many 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 psycholinguistic 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.
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, 1B, 1BL, and 1C, or 2A, 2B, 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.** (5) (Formerly numbered 7.) 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) (Formerly numbered 8.) Lecture, three hours; discussion, one hour; one field trip. Required as preparation for both bachelor's degrees. General survey of field and laboratory methods, theory, and major findings of archaeological archaeology, including case-study guest lectures presented by several campus archaeologists. P/NP or letter grading.

3. **Culture and Society.** (5) (Formerly numbered 9.) 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) (Formerly numbered 33.) 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.
Upper-Division Courses

Archaeology

100. History of Anthropology. (4) (Formerly numbered 195.) Lecture. Three hours. Prehistory of Western social science, particularly anthropology, from Greek and Roman thought to emergence of evolutionary theory and concept of culture in late 19th century. Root paradigm of Western social science and its influence on such notables as Durkheim, Freud, Hall, Lombraso, Marx, Piaget, Terman, and others. Consideration of how this influences ethnocentrism and Eurocentrism, sexism, racism, perception of deviance, and view of culture in general. P/NP or letter grading.

110. Principles of Archaeology. (4) (Formerly numbered 110P.) Lecture, three hours; discussion, one hour (when scheduled). Study of major archaeological themes, regions, or sites, examining current developments and key issues in archaeology. May be repeated for credit with topic change. P/NP or letter grading.

116R. Archaeological Landscapes of China. (4) (Formerly numbered 116S.) Lecture, three hours. Examination 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.

C117. Selected Laboratory Topics in Archaeology. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in archaeology and prehistory of Southeast Asia from Paleolithic through historic periods. May be scheduled with course CM217. P/NP or letter grading.

117P. Selected Laboratory Topics in Archaeology. (4) Lecture, three hours. Requisite: course 2. How archaeological research is furthered by specialized analysis of particular classes of cultural remains. Topics may include animal bones, plants, ceramics, rock art. Hands-on experience working with collections and data. May be repeated for credit with topic change. P/NP or letter grading.

118Q. Conquest and Colonialism. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in archaeology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.
Biological Anthropology

120. Survey of Biological Anthropology. (4) Lecture, three hours. Requisite: course 1. Limited to juniors and seniors. In-depth survey of theory and research in biological anthropology, including evolutionary theory, genetics, primatology, human ecology, 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 129Q. Survey of research in human behavioral ecology. Review of natural and sexual selection, kin selection, and reciprocal altruism. 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 124B.) 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 the environment. P/NP or letter grading.

M124R. Evolution of Language. (Formerly numbered 124R.) Same as Communication M124R. Lecture, three hours; discussion, one hour (when scheduled). Recommended prerequisite: course 1. Introductory-level understanding of genetics expected. Examination of origin of human language from biological, comparative, developmental, social and computational perspectives. Topics include evolutionary theory, linguistic structure, gesture and speech, 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 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 members of opposite sex. P/NP or letter grading.

124T. Evolution of Personality. (Formerly numbered 124) Lecture, three hours. Requisite: course 1 or Life Sciences 1 or 7B or Psychology 10. Evolutionary hypotheses for factors influencing personality traits. Emphasis on the behavioral and evolutionary contexts affecting personality traits. P/NP or letter grading.

124V. Evolution of Personality. (Formerly numbered 124) Lecture, three hours. Requisite: course 1 or Life Sciences 1 or 7B or Psychology 10. Evolutionary hypotheses for factors influencing personality traits. Emphasis on the behavioral and evolutionary contexts affecting personality traits. P/NP or letter grading.

135R. Multimedia Ethnography. (4) Formerly numbered 135S.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of field of psychological anthropology, with emphasis on current topics and research. Topics include behavior and ethnography of managing common goods resources such as primary data, illustrations of words in books, documentation for disappearing cultures, evidence of fieldwork, material objects for museum exhibitions, and even written script. Topics will vary. Traces multiple theoretical lineages, beginning with early work in cultural ecology and including political ecology, environmental history, contested ontologies, and contemporary environmental justice. Through engagement with grounded, multimodal ethnographies (in text, film, and new media), study of historical movements of people across ecosystems, politics of managing common goods resources such as rivers and atmosphere, bioeconomics of environmental contamination, and development of climate change adaptation strategies in hard-hit areas. P/NP or letter grading.

135R. 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, trade, or ethnic violence). P/NP or letter grading.

135Q. Anthropology of the Family. (4) Formerly numbered 135P.) Lecture, three hours; discussion, one hour (when scheduled). Study of family in a variety of contexts and cultures. Emphasis on family as an institution and as a form of social organization. Topics may include the reproductive role of males and females, family size and structure, marital conditions, family development, and sexual orientation. P/NP or letter grading.

136A-136B. Introduction to Psychological Anthropology. (4–4) Formerly numbered 136P or 136Q. Lecture, three hours; discussion, one hour (when scheduled). Survey of field of psychological anthropology, with emphasis on early foundations and historical development of field. Topics include study of personality, pathology and deviance, altered states of consciousness, cognitive motivation, and emotion in different cultural settings. 136B. Current Topics and Research. (4) Formerly numbered 135B.) Lecture, three hours; discussion, one hour (when scheduled). Survey of field of psychological anthropology, with emphasis on current topics and research. Topics include study of personality, pathology and deviance, altered states of consciousness, cognitive motivation, and emotion in different cultural settings. 136R. Introduction to Psychological Anthropology. (4–4) Formerly numbered 136P or 136Q. Lecture, three hours; discussion, one hour (when scheduled). Survey of field of psychological anthropology, with emphasis on current topics and research. Topics include study of personality, pathology and deviance, altered states of consciousness, cognitive motivation, and emotion in different cultural settings. 137P. Anthropology of Deviance and Abnormality. (Formerly numbered 137S.) Lecture, three hours; discussion, one hour (when scheduled). Course 3. Limited to juniors/seniors. Survey of field of psychological anthropology, with emphasis on current topics and research. Topics include study of personality, pathology and deviance, altered states of consciousness, cognitive motivation, and emotion in different cultural settings. 137Q. Psychoanalysis and Anthropology. (4) Formerly numbered 137ST.) Lecture, three hours; discussion, one hour (when scheduled). Exploration of mutual relations between culture and psychoanalysis, considering both theory and method. History of and current developments in psychoanalysis; anthro-
138P. Field Methods in Cultural Anthropology. (5) (Formerly numbered 139P.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Introduction to skills and tools of data ascertainment through fieldwork in cultural anthropology. Emphasis on techniques, methods, and concepts of ethnographic research and how basic observational information is transformed into analysis, and cross-cultural comparison. P/NP or letter grading.

M138Q. Fieldwork in Asian and Pacific Islander Communities. (4) (Formerly numbered American Studies M138Q.) Lecture, three hours; discussion, one hour. Introduction to qualitative research methods and application of techniques in data collection, analysis, and reporting. Critical reflection processes are used to identify migration, multiculturalism, tourism, and indigenous rights. Field excursions and guest lecturers from local community included. Given in Hawai‘i. P/NP or letter grading.

139. Selected Topics in Cultural Anthropology. (4) (Formerly numbered 137.) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in cultural anthropology. Consult Schedule of Classes for topics. Enforced requisite: course 3 or (when scheduled). P/NP or letter grading.

140. Study of Social Systems. (4) (Formerly numbered 150.) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 3. Introduction to more specialized social anthropology courses. Evaluation of variation in sociocultural systems, with special emphasis on forms of inequality. Basic frameworks of anthropological analysis: historical context and development of social anthropology discipline. P/NP or letter grading.

141. Careers in Anthropology. (4) (Formerly numbered 151.) Lecture, three hours. Overview of career paths for students with degrees in anthropology. Helps students develop academic and professional skills in preparation for life after UCLA. Focus on ways in which one can apply anthropological concepts, research methodologies, and analytical skills to range of careers. Guest speakers discuss how they have applied their anthropology degrees to their work outside of academia. P/NP or letter grading.

142P. Anthropology of Religion. (4) (Formerly numbered 156.) Lecture, three hours. Survey of various methodologies in comparative study of religious ideologies and action systems, including understanding particular religious phenomena through descriptive and structural approaches, and identification of social and psychological factors that may account for variation in religious systems cross-culturally. P/NP or letter grading.

142Q. Ethnic and Religious Minorities. (4) Lecture, three hours. Overview of characteristics of ethnic and religious minorities in contemporary Middle East and North Africa structured around sociocultural experiences of ethnic and religious groups to understand their political and economic realities. P/NP or letter grading.

143. Economic Anthropology. (4) (Formerly numbered 153P) Lecture, three hours. Enforced requisite: course 3. Introduction to anthropological perspectives for interpretation of economic institutions. Economic facts to be placed in their larger social, political, and cultural contexts; examination of modes of production, distribution, and consumption of goods and services in their relation to social networks, power structures, and institutions of family, kinship, and class. P/NP or letter grading.

C144M. Multiperspect Anthropology. (4) Lecture, three hours. Survey of human-animal relationships across human history and contemporary present-day debates over animal rights, and very different ways societies distant in time and space from our own have constructed inner lives of other species and their relationships to human others. Concurrently scheduled with course C244M. P/NP or letter grading.

M144P. Constructing Race. (4) (Formerly numbered M158P) (Same as Asian American Studies M158P and Asian American Studies M169P.) 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 U.S., whiteness, race in post-colonial, and race and identity. P/NP or letter grading.

M144Q. Afro-American Experience in U.S. (4) (Formerly numbered M164.) (Same as African American Studies M164.) Lecture, three hours. Promotes understanding of contemporary sociocultural forms among Afro-Americans in U.S. by presenting comparative and diachronic perspective on Afro-American experience in New World. Emphasis on utilization of anthropological concepts and methods in understanding origins and maintenance of particular patterns of adaptation among black Americans. P/NP or letter grading.


C144S. Repatriation of Native American Human Remains and Cultural Objects. (4) (Formerly numbered C169R.) Lecture, two hours; discussion, one hour. Native Americans have recently been successful in obtaining passage of federal laws rearticulating human remains and cultural objects to them. Examination of this phenomenon. May be concurrently scheduled with course C244S. P/NP or letter grading.

M145P. Marriage, Family, and Kinship. (4) (Formerly numbered M151.) (Same as Studies M154P.) Lecture, three hours. Enforced requisite: course 3. Examination of understandings of kinship in cross-cultural perspective and impact of kinship on interpersonal relations and social and cultural systems. Readings from popular materials and formal ethnographic accounts. P/NP or letter grading.

M145Q. Selected Topics in Gender Systems. (4) (Formerly numbered 154P) (Same as Gender Studies M154Q.) Lecture, three hours. Recommended preparation: prior anthropology or gender studies courses. Designed for junior/senior social sciences majors. Comparative study of women's lives and gender systems in a number of cultural contexts. Critical review of relevant theoretical issues using ethnography, case study, and presentations. Consult Schedule of Classes for topics and instructors. Required preparation: prior anthropology or gender studies courses. P/NP or letter grading.

M145R. Women and Social Movements. (4) (Formerly numbered M155Q.) (Same as Gender Studies M155Q.) Lecture/discussion, three hours. Recommended preparation: prior gender studies or anthropology courses. Comparative studies of social movements (e.g., nationalist, socialist, liberal/reform), beginning with Russia and China and including Cuba, Algeria, Guinea-Bissau, Mozambique, Nicaragua, and Iran. Analysis of women's participation in social transformations and centrality of gender interests. P/NP or letter grading.

145S. Culture, Gender, Sexuality. (4) (Formerly numbered M134.) Lecture, three hours. Comparative analysis of role of environment, history, and culture in structuring of patterns of gender and sexuality. P/NP or letter grading.

M145T. Women's Voices: Their Critique of Anthropology of Japan. (4) (Formerly numbered M155T.) (Same as Gender Studies M155T.) Lecture, three hours. Preparation: introductory sociocultural anthropology or Anthropology of Japan has long viewed Japan as homogeneous whole. Restoration of diversity and contradiction in it by listening to voices of Japanese women in various historical contexts. 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 majors. Introduction to modern industrial cities and urban life. Examination of notion of urban space in context of social relations by drawing from historical and cross-cultural urban ethnographies. Urban space is created according to needs of capital and actions of urban subjects. Exploration of ways in which class, gender, race, and geography shape or contest perspectives and priorities on urban issues. P/NP or letter grading.

147. Development Anthropology. (4) (Formerly numbered 161.) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 3. Designed for juniors/seniors. Comparative study of planned and unplanned development, in particular as it affects rural societies. Emphasis on impact of capital, technolog- ical change on gender, generation, and racial formation and as a differential and class, urban/rural relations, and migration. Discussion of theoretical issues in light of case studies.

M148. Past People and Their Lessons for Our Own Future. (5) (Formerly numbered M158Q.) (Same as Geography M153 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 people are coping or failing to cope with similar issues. Letter grading.

149. Selected Topics in Social Anthropology. (4) (Formerly numbered 152.) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 3. Study of selected 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.

Linguistic Anthropology

M150. Language in Culture. (5) (Formerly numbered M140.) (Same as Linguistics M146.) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 4 or Linguistics 20. Study of language as aspect of culture; relation of habitual thought and behavior to language; and language and classification of expression. 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) (Formerly numbered 141.) Lecture, three hours; fieldwork. Enforced requisite: course 4. Designed for juniors/seniors. Course has two interrelated objectives: (1) to introduce students to ethnography of communication—description and analysis of situated communicative behavior—and sociocultural knowledge that it reflects and (2) to train students to recognize, describe, and analyze relevant linguistic, proxemic, and kinesic aspects of face-to-face interaction. P/NP or letter grading.

M152P. Language Development and Socialization. (4) (Formerly numbered 152P) (Same as Psychology M149.) Lecture, three hours; discussion, one hour (when scheduled). Exploration of processes through which children learn structures and practices of language and become competent participants in linguistic and social worlds around them. Examination of language use and socialization over childhood, across communities of practice, and across different ethnic and socioeconomic groups. Study of language development and socialization interface with culture, modality, inequality, education, and cognition. P/NP or letter grading.

152Q. Language and Social Organization through Life Cycle. (4) (Formerly numbered 146P.F.) Lecture, three hours. Enforced 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-recordings of natural 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. (4) (Formerly numbered 149D.) Lecture, three hours. Requir-
site; course 4. Examination of various ways in which culture and language in particular, influence not only educational processes and outcomes, but also various conceptions of what normal development processes and desirable educational outcomes are. P/NP or letter grading.

153. Language and Identity. (4) (Formerly numbered 149A) Lecture, three hours. Requisite: course 4. Lan-
guage as social phenomenon. Introduction to several angles for using culture to analyze power and social struc-
tures. Participation of interests in their analyses. P/NP or letter grading.

154P. Multilingualism: Communities and Histories in Contact. (Formerly numbered 149C.) Lecture, three hours. Requisite: course 4. Examination of multilingualism as a linguistic and social practice. Overview of selected multilingual communities in studies in lectures to contextualize class readings. P/NP or letter grading.

154Q. Gender and Language in Society. (4) (Formerly numbered 149B) Lecture, three hours; discuss-
ion, one hour (when scheduled). Requisite: course 4. Examination of how gender is expressed in language and practices contributing to the construction of gender identities and ways in which gender im-
 pact 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 gender and crucial practices contributed to the expression of gendered identities in different social groups and situations. Completion of 20 hours of ser-
vice learning in community service program coordinated by faculty. By petition, course may be limited.

155. Native American Languages and Their Speak-
ers. (4) (Formerly numbered C155) Lecture, three hours. Requisite: course 4 or American Indian Studies M10. Introduction and comparative analysis ofso-
icosocial aspects of language ideologies and language use in indigenous speech communities through Amer-
icas. Examination of cultural diversity of discourse practices for both everyday forms of speaking as well as special registers used in particular cultural con-
texts. Requisite: course 4 or American Indian Studies M10.

156. Language Endangerment and Linguistic Re-
vitalization. (4) (Formerly numbered M162.) (Same as American Indian Studies M162.) Lecture, three hours; activity lab; course 4. American Indian Studies M10. Examination of causes and conse-
quences of current worldwide loss of linguistic diver-
sity and revelation of kinds of efforts that members of threatened heritage language communities have pro-
duced 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 forces as globalization, local economic forces, language ideological change, and language shift away from smaller indigenous and tribal lan-
guages. Since loss of such languages means both redu-
duction of ways in which cultural diversity is expressed, majority of affected communities have engaged in various lan-
guage renewal practices. Examination of some di-
verse strategies that have been attempted, including immersion classes, heritage classes, master-apprentice, interactive multimedia, mass media ap-
proaches, and language policy-reform approaches.

Evaluation of effectiveness of these measures and of very imagery used to discuss language endanger-
ment, P/NP or letter grading.

M157W. Talk and Body. (5) (Formerly numbered M148W) (Same as Communication M123W) Lecture, four hours; discussion, one hour. Requisite: English Composition 1. Language and human body hosts of interesting topics. New ap-
proaches to phenomena such as embodiment be-
come possible when body is analyzed, not only as an isolated entity, but as visible agent whose talk and action are lodged within both processes of human interaction and rich settings where people pursue courses of ac-
tion that count in their lives. Satisfies Writing II require-
ment. Letter grading.

M158. Culture of Jazz Aesthetics. (4) (Formerly numbered M142R.) (Same as Ethnomusicology M130 and Global Studies M130) Lecture, three hours. Requisite: course 4. Examination of how jazz from 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 historical knowledge of musicians and ethnomusi-
cologists combined with those interested in jazz as cultural tradition.

159. Selected Topics in Linguistic Anthropology. (Formerly numbered 147,) Lecture, three hours; discus-
sion, one hour (when scheduled). Study of se-
lected topics in linguistic anthropology. Consult Schedule of Classes for instructors. May be repeated for credit with topic change. P/NP or letter grading.

Regional Cultures

160A. Native North Americans. (4) (Formerly num-
bered 172A) Lecture, three hours; discussion, one hour. By petition, course may be limited. P/NP or letter grading.

160B. Change and Continuity among Native North Americans. (4) (Formerly numbered 172B) Lecture, three hours. Requisite: course 160A. Consideration of tremendous change Native American soci-
eties have undergone over their original forma-
tion, and development. Particular attention to subsis-
tence systems and their relationship to social institu-
tions and cultural practices, especially religion. P/NP or letter grading.

161. Latin American Communities. (4) (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 environ-
ments. P/NP or letter grading.

162. Ethnography of South America. (4) (Formerly numbered 174P) Lecture, three hours. Introduction to ethnography of South American Indians, with special emphasis on Brazil, Argentina, and South America. Survey of his-
tory and development of man and society in this world area and examination of exemplary cultures symptom-
tic of various levels of cultural achievement. P/NP or letter grading.

163P. Ideology and Social Change in Contempo-
ry China. (Formerly numbered 175Q) Lecture, three hours; discussion, one hour (when scheduled). Ethnographic studies of social and cultural change in China from 1949 to present. Topics include ideology and politics in everyday life, social stratification and mobility, cul-
tural construction of socialist person, changes in church, family, and city. P/NP or letter grading.

163Q. Societies of Central Asia. (4) (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 problems of modernization. P/NP or letter grading.

163R. Japan. (4) (Formerly numbered 175S) Lecture, three hours. Study of historical and contempo-
rary culture of Japan, including social change, culture, values, religions, patterns of interpersonal relations, social and family life, P/NP or letter grading.

166P. Sub-Saharan Africa. (4) (Formerly numbered 171.) Lecture, three hours. Issues of economy and pol-
itical ecology; continuing impacts 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). (4) (Formerly numbered M171P) (Same as Arabic M171 and History M108C) Lecture, three hours. Designed for seniors. Introduction to North Africa, espe-
cially the Maghrib and the ethno-geopolitical region’s public spaces. P/NP or letter grading.

167. Culture Area of Middle East. (4) (Formerly num-
bered 176.) Lecture, three hours. Study of Middle East has suggested many theories as to developmental history of humankind, evolution of human societies, birth of monotheism, and origin of agriculture, trade, and cities. Presentation of anthropological material rel-
ated to understanding Middle East as culture area, and Islam as basis of its shared tradition. P/NP or letter grading.

168P. Cultures of Pacific. (4) (Formerly numbered 177.) Lecture, three hours. Four major culture areas of Australia, Melanesia, Polynesia, and Micronesia. Gen-
eral geographical features, prehistory, and language distribution of whole region. Distinctive sociocultural features of each culture area presented in context of their adaptive significance. P/NP or letter grading.

168Q. Ethnic Identity and Ethnic Relations in Ha-
waiti. (4) (Formerly numbered M177P) (Same as Asian American Studies M143C.) Lecture, three hours; dis-
cussion, one hour. Continuing construction and ex-
pression of ethnic identity and the fluidity of these forms and cultural practice in Hawai’i. Overview of theoretical ap-
proaches to and basic concepts in study of ethnic identity and ethnic relations. Discussion of 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. (4) (For-
merly numbered 179.) Lecture, three hours; discus-
sion, 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 Collegium 101E. Limited to junior/senior USIE facilita-
tors. Individual study in regular 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 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.

Anthropology / 191
191. Data Analysis. (4) Seminar, three hours. Limited to honors program students. Survey of major research strategies in anthropological analysis of data. Credit toward major may be repeated for credit. Individual contract required. S/U or letter grading.

191B. 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.

191C. Data Analysis. (4) Seminar, three hours. Limited to anthropology honors program students. Survey of major methods of analysis in anthropology to aid honors students in students in analysis of their own research data. Letter grading.

191D. Writing for Anthropology. (4) Seminar, three hours. Limited to anthropology honors program students. Teaching of writing skills, with focus on how to write honors theses. Letter grading.

191E. Writing for Conference and Conference Presentations. (4) Seminar, three hours. Limited to anthropology honors program students. Preparation of honors theses for publication and for conference presentations and oral presentation. Letter grading.

191F. Journal Club Seminars: Anthropology. (1–4–4) Seminar, three hours. Limited to anthropology honors program students. Discussion of current readings in anthropology. May be repeated for credit. S/U or letter grading.


191H. Community and Corporate Internships in Anthropology. (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 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. No more than 4 units may be applied toward major; units applied must be taken for letter grade. Individual contract with supervising faculty member required. P/NP or letter grading.

212P. Explanation of Societal Change. (4) (Formerly numbered 217P.) Seminar, three hours. Examination of processes of societal evolution, emphasizing usefulness of variety of explanatory models from general system theory, evolutionary theory, 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. (4) (Formerly numbered 217A.) 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. (4) 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 their influence on social development, archaeology of language dispersal, cultural contact and nature of cultural influence. S/U or letter grading.

CM217. Selected Laboratory Topics in Archaeology. (4) (Formerly numbered M212J.) (Same as Archaeology M205A,) Lecture, one hour; laboratory, two hours. Designed for graduate students in archaeology or in other related fields. Specialized analysis of particular classes of cultural remains. Topic may be one of following: zooarchaeology, paleoethnobotany, ceramic, 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 228P.) Seminar, three hours. Discussion of the main theoretical approaches outlined in anthro courses and discussion of important theoretical issues. Topics include early village societies, specialization and cultural complexity, ethnography for archaeologists, power and hierarchy in intermediate societies, materialist/idealistic debates, urbanization, and exchange systems. May be repeated for credit. S/U or letter grading.

Biological Anthropology


222. Graduate Core Seminar: Biological Anthropology in Review. (4) Seminar, three hours. Graduate core course for biological anthropology majors. Topics include evolutionary theory, behavior of nonhuman primates, hominid evolutionary history, and contemporary human variation. 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 220.) Seminar, three hours. Detailed examination of current 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 assumptions and debates that animate visual anthropology very broadly defined, including issues of interpretation, production, and reception of visual media, which includes ethnographic, documentary, and feature films, as well as television programming. S/U or letter grading.

232Q. Ethnographies of Information Technology. (4) (Formerly numbered 233T.) Seminar, three hours. May be repeated for credit. S/U or letter grading.

233P. Advanced Seminar: Medical Anthropology. (4) (Formerly numbered M263Q.) Seminar, three hours. Limited to 15 students. Examination of relationships between society, culture, ecology, health, and illness. Bases for written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.

M235Q. 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 shamans 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, music, ritual and case examples of religion and healing practices via lecture, film, and audio-tape. Letter grading.

M233R. Health and Culture in Americas. (4) (Formerly numbered M265.) (Same as Community Health Sciences M260 and Latin American Studies M260.) Lecture, three hours. Recommended requisite: Community Health Sciences 132. Health issues throughout Americas, especially indigenous/Mestizo Latin American populations. Holistic approach covering politics, economics, history, geography, human rights, maternal/child health, culture. Letter grading.

233T. Narrative and Times of Trouble. (4) (Formerly numbered M266.) Seminar, three hours. Recommended requisite: one course from 203A, 203B, 203C, 204, or 252A. Exploration of how linguistic and psychological/medical anthropology inform each other in relation to narrative and times of trouble. Topics include narrative sense-making in response to illness and misfortune; phenomenology of time; narrative, healing, and experience; remembering through narrative; narrative styles and forms; and narrative and selves in motion. S/U or letter grading.

234. Mind, Medicine, and Culture. (2) (Formerly numbered C234.) Seminar, two hours. Interdisciplinary discussion group focusing on mental health and culture. Topics include mental illness among African Americans. Group provides forum for exploring recent research and classical and contemporary theoretical perspectives that inform psychosocial studies and medical anthropology. S/U or grading.


236. Seminar: Psychosocial Studies and Medical Anthropology. (4) (Formerly numbered 234.) Seminar, three hours. Devoted to present state of research in psychosocial studies. Survey of work in child development and socialization, personality, psychosocial, transcultural psychiatry, learning, perception, cognition, and psychosocial perspectives on change. S/U or letter grading.

M237. Psychological Anthropology. (4) (Formerly numbered M234Q.) (Same as Psychiatry M272.) Seminar, three hours. Various psychological issues in anthropology, both theoretical and methodological. Areas of interest include such things as culture and therapeutic care and mental health, and culture psychiatry. Discussion of questions related to symbolic and unconsciousness process as they relate to culture. Topics vary from term to term. May be repeated for credit with topic change. S/U or letter grading.

M238. Native American Revitalization Movements. (4) (Same as History M262C.) Lecture, two hours; discussion, one hour. Examination of revitalization movements among native peoples of North America (north of Mexico). Specific revitalization includes Standing Rock, 1870 and 1890 Ghost Dances, and Peyote Religion. Letter grading.

239. Selected Topics in Field Ethnography. (4 to 8) (Formerly numbered 239P.) Seminar, three hours. Discussions and practice in various techniques for collecting and analyzing ethnographic field data. S/U or letter grading.

241. Culture, Power, Social Change. (2) Seminar, two hours. Cutting-edge research in sociocultural anthropology. Talks given by scholars from different universities around world and faculty and students from UCLA with discussion regularly attended by students and focal students from wide range of related departments in addition to anthropology. Additional discussions about recently published or unpublished manuscripts. Professional sessions for doctoral students. Topics of discussion vary from year to year. S/U grading.


M243. Gender Systems. (4) (Formerly numbered M263P.) (Same as Gender Studies M263.) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationship between systems of gender, economy, and political systems. Letter grading.

C244M. Multispecies Anthropology. (4) Lecture, three hours. Seminar, two hours. Survey of human-animal relationships across history, from domestication to present-day debates over animal rights, and very different ways societies distant in time and space from our own have construed inner lives of other species and animals. Concurrently scheduled with course C144M. S/U or letter grading.

M244P. Contemporary Issues of American Indians. (4) (Formerly numbered M267P.) (Same as American Indian Studies M200C and Sociology M274.) 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 American Indian Studies M200A and cultural and expressive 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 C269P.) 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. Examination 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 M202.) Seminar, four hours. Introduction to various theoretical perspectives that underlie articulation of construct of African diaspora. Structured through understanding of African diaspora as historical formation, with focus on African diaspora
246. Contemporary Problems in Africa. (4) Formerly numbered 271.) Seminar, three hours. Problems and political 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.

247P. Japan in Age of Empire. (4) Formerly numbered M276.) (Same as Asian M292 and History M286.) Seminar, three hours. Designed for graduate students. By turn of the century, Japan had 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 hardly explored area of study of colonialism. S/U or letter grading.

247Q. Central Asian Studies: Discipline, Methods, Debates. (2) Formerly numbered M287LR.) (Same as History M287 and Near Eastern Languages M287.) Seminar, two hours. Introduction to study of central Asia as practiced in humanities and social sciences disciplines. S/U grading.

248. 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 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 Mediterranean. Letter grading.

249. Selected Topics in Social Anthropology. (4) (Formerly numbered 250.) Seminar, three hours. Intensive examination of current theoretical views and literature relevant to central problems in the discipline. S/U or letter grading.

250A. Ethnography of Communication. (4) (Formerly numbered 242.) Seminar, three hours. Designed for graduate students. Seminar devoted to examining representative scholarship from fields of sociolinguistics and ethnography of communication. Particular attention to theoretical developments including relationship of ethnography of communication to such disciplines as anthropology, linguistics, and sociology. Topical focus include style and strategy, speech situation, varieties of noncasual speech genres, languages and ethnicity, and nonverbal communication behavior. S/U or letter grading.

252B. Ethnographic Methods in Language, Interaction, and Culture. (4) (Formerly numbered 249A.) Seminar, three hours. Requisite: course 252A or Sociology 244A. Ethnographic approaches to recording and analysis of language and events in their sociocultural context, involving student-initiated fieldwork in community setting. Emphasis on hands-on activities within theoretical frameworks that consider language as cultural practice. Designed to teach skills related to collecting society and culturally meaningful data. Letter grading.

253. Language Ideologies: Political Economy of Language Beliefs and Practices. (4) (Formerly numbered 243A.) Lecture, three hours. Language ideological research problematizes fundamental assumptions about speakers’ use of language and communicative practices: (1) speakers’ awareness of these structures and processes and (2) relationship of this consciousness to speakers’ political economic perspectives and to actual communicative conduct. S/U or letter grading.

254. Discourse Laboratory. (2) Seminar, two hours. Interdisciplinary seminar group around in-progress research projects, talks, published articles, and methodological and professional development in linguistic anthropology. S/U grading.

255. Native American Languages and Cultures: Critical Issues. (4) (Formerly numbered C255P) Seminar, three hours. Preparation: prior coursework in anthropology, linguistics, or American Indian studies. Exploration of important relationship between indigenous languages of Americas and expression of indigeneity and cultural sovereignty. Specific topics may include Native American language ideologies, verbal art, language and tribal law, language and education, and language revitalization. S/U or letter grading.

Linguistic Anthropology

257. Topics in Semantics and Pragmatics. (4) Formerly numbered 247A, four hours. Detailed examination of specialized topics in semantics and pragmatics. Topics vary from year to year and may include metaphor, theories of reference and denotation, honorific speech, evidentiality, reported speech, etc. May be repeated for credit with topic change. S/U or letter grading.

258. Language Socialization. (4) Formerly numbered 248.) Seminar, four hours. Exploration of processes of socialization and socialization to use language across lifespan, across communities of practice within single society, and across different ethnic and socioeconomic groups. Ways in which language 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

282. Research Design in Cultural Anthropology. (4) Lecture, three hours. Primarily designed for graduate students preparing for fieldwork. Unique position of anthropology among sciences and resulting 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.

283. Proposal Writing Seminar. (4) Formerly numbered 200.) Seminar, three hours. Introduction to art of proposal writing. Focus on proposal for anthropological fieldwork, with skills being useful across disciplines and proposal genres. Structured as writing workshop, with written assignments and group critique. S/U or letter grading.

M284A. Qualitative Research Methodology. (4) (Formerly numbered M284.) Same as Community Health Sciences M216.) Seminar, three hours; laboratory, one hour. Intensive, fieldwork-based course in qualitative research methodology. Emphasis on using qualitative methods and techniques in research and evaluation related to healthcare. 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 research methods, research design 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.

289. Relational Models Theory and Research Design. (4) Seminar, three hours. Relational models theory (RMT) posits that people in all cultures use relational models to motivate, generate, constitute, coordinate, judge, and sanction social interactions. RMT aims to account for what is universal and idiosyncratic in social interaction. RMT research in social anthropology, archaeology, sociology, anthropology, linguistics, developmental, cognitive, social, political, moral, and cultural psychology, neuroscience, evolution, sociology, family studies, philosophy, management, marketing, and consumer psychology, economics, justice, public health, public 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 multigenerational perspective. May be repeated for credit. S/U or letter grading.


299. Selected Topics in Anthropology. (4) Formerly numbered 297.) Seminar, three hours. Designed for graduate students. Study of selected topics of anthropological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit. S/U or letter grading.

Special Studies

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 Anthropology. (2 to 4) Seminar/workshop, three hours. Designed for graduate students. Required of all new teaching assistants. Workshop/seminar in teaching techniques, including evaluation of each student's own performance as teaching assistant. Four-day workshop precedes beginning of term, followed by 10-week seminar during term. Designed to deal with problems and techniques of teaching anthropology. Unit credit may be applied toward full-time equivalency but not toward nine-course requirement for MA. 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.


509. Research for PhD Dissertation. (2 to 12) Tutorial, to be arranged. PhD dissertation research or writing. Students must have completed qualifying examinations and ordinarily take no other coursework. S/U grading.
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The UCLA Academic Senate approved the disestablishment of the Department of Applied Linguistics; the discontinuance of the graduate degree and certificate programs, Language Teaching minor, and African Languages BA; and the transfer of the Applied Linguistics BA to the Department of Linguistics effective winter quarter 2015. Students currently enrolled in any of the programs may complete them under current requirements.

Undergraduate Study

African Languages BA

The African Languages BA was discontinued effective winter quarter 2015.

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 Courses

30W. Language and Social Interaction. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 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.

40W. Language and Gender: Introduction to Gender and Stereotypes. (5) Lecture, four hours; discussion, two hours. Enforced requisite: English Composition 3 or English as a Second Language 36. Not open for credit to students with credit for course 40. Prior knowledge of foreign languages not required. Introduction to language from sociological perspective of gender. Use of research and examples in English and other languages to explore nature of male and female “genderlects” and gendered language, as reflected in lexicon, language behavior, phonetics and intonation, and language acquisition and linguistic change. Satisfies Writing II requirement. Letter grading.

Upper-Division Courses

101W. Introduction to Language Learning and Language Teaching. (8) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or English as a Second Language 36. Not open for credit to students with credit for course 101. Exploration of skills and conditions involved in successful second and foreign language learning; application of this knowledge in development of framework for teaching second and foreign languages. Satisfies Writing II requirement. Letter grading.

102W. Nature of Learning. (8) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or English as a Second Language 36. Exploration of learning via examination of second language acquisition. All normal children acquire language of their family and community (i.e., first language acquisition is ubiquitous). Success in second language acquisition is radically variable, and many learners, in spite of substantial opportunity and ability, achieve efficiencies that fall far below that of native speakers. Examination of interaction of emotion and cognition and nature of aptitude and motivation in learning. Primary vehicle for investigation to be autobiographies of second language learners. Satisfies Writing II requirement. Letter grading.


278. Discourse Laboratory. (4) Laboratory, four hours. Requisite: course M206. Designed for Applied Linguistics PhD students. Advanced procedures in data analysis in field of discourse analysis, including development of large-scale research project and critical review of current research. 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.

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.

597. 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 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 engaged in dissertation preparation. May be repeated for credit but may not be applied toward PhD course requirements. S/U grading.

Archaeology

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Monica L. Smith, PhD (Anthropology, Environment and Sustainability)
Charles S. Stanish, PhD (Anthropology)
Lothar von Falkenhausen, PhD (Art History)
Thomas A. Wake, PhD (Anthropology)
Wilhelmine Z. Wendrich, PhD (Near Eastern Languages and Cultures)

Scope and Objectives

The interdisciplinary Archaeology 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
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 Archaeology 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) Seminar, one hour; laboratory, three hours. Taught by curators of archaeological collections. Topics in greater depth through supplemental readings, papers, and oral presentations. May be repeated for credit with topic change. Concurrently scheduled with course C120. Final project or paper required if taken for 4 units (P/NP or letter grading); 2- unit course graded P/NP.

C159. Fieldwork in Archaeology. (2 to 12) Fieldwork, to be arranged. Participation in archaeological field excavations or museum 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. (6) 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 patina formation, metallic coatings, corrosion products, and corrosion and its effects on preservation. May be repeated for credit with consent of adviser. Concurrently scheduled with course C259. P/NP or letter grading.

C208. Ancient and Historic Textiles: Production, Typology, and Microstructure. (4) Seminar, five hours; laboratory, two hours. Study of methods and techniques used in making, Indian high-tin bronze alloys, bronzes, Peru ceramics, textiles, architectural forms, and building techniques, which is functionally impossible to separate pre-Islamic Christian Egyptian from early Islamic Egypt. Although populations 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 century. CE. According to period of study, topics may include survey of textiles, architectural forms, and building techniques, which is functionally impossible to separate pre-Islamic Christian Egyptian from early Islamic Egypt. 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Teaching Apprentice Practicum. (1 to 4)
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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.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. 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. Individual Studies for Graduate Students. (2 to 12) Tutorial, to be arranged. May be repeated for credit with consent of adviser, S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Preparation: completion of formal coursework, passing of language examinations before enrollment. May be repeated for credit with consent of adviser. S/U grading.

598. MA Paper Preparation. (2 to 12) Tutorial, to be arranged. May be repeated for credit with consent of adviser. S/U grading.

599. PhD Dissertation Research and Preparation. (2 to 12) Tutorial, to be arranged. May be repeated for credit with consent of adviser. S/U grading.

ARCHITECTURE AND URBAN DESIGN
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Heather L. Roberge, MArch, Chair

Faculty Roster

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Dana Cuff, PhD
Neil M. Denari, MArch
Greg S. Lynn, MArch
Ben J. Refuerzo, MArch
Brett B. Steele, AIA

Professors Emeriti
Marvin Adelson, PhD
Samuel Aron, PhD
Diane G. Favro, PhD
Baruch Givoni, PhD
Thomas S. Hines, PhD
F. Eugene Kupper, MArch
Jurg Lang, DiplArch
Robin S. Liggett, PhD
Murray A. Mline, MArch
Barton Myers, MArch
George Rand, PhD
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Jason K. Payne, MArch
Heather L. Roberge, MArch

Adjunct Professors
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Alan Locke, MSc
Roger Sherman, MArch

Adjunct Associate Professors
Georgina Huilich, MArch
Jeffrey N. Inaba, MArch, MA

Adjunct Assistant Professors
Julia Körner, MSc
Andrew Kovacs, MArch
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 I, MArch II, MA, and PhD. 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 I 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 I graduates normally pursue professional careers in architectural practice. MArch II 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.

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 cre-
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. Informal 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.

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.

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 will be in academic standing and rolled into minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP 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. Credit is given for one course the equivalent of 12 credits of spatial representation as they relate to architectural design. How to communicate using two- and three-dimensional drawing and modeling. Analog and digital techniques and opportunity afforded by moving between both. Analog techniques include orthographic and axonometric projection. Digital techniques focus on computer graphics fundamentals, including bit maps and vector graphics. Emphasis on understanding group of core competencies and modeling using Rhinoceros. Offered in summer only. Letter grading.

103. Introduction to Architectural Design. (6) Studio, 16 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 problems 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. Development of material and temporal characteristics of architecture relative to role those play in landscape. Introduction to issues of accessibility and egress as systems of movement. Structure as material component that relates to site, construction, topography, climatology, accessibility, and their mutual interaction. Letter grading.


M125C. Digital Cultural Mapping Core Course C: Summer Research. (4) Same as Ancient Near East M125C. Laboratory, three hours; fieldwork, one hour. Focus: Investigating ancient Near East on Google Earth. Participation in collaborative geographic information systems (GIS) research project in humanities or social sciences using skills learned in courses 125A and M125B. Gathering and input of datasets from real-world sources, creating visual representations of data through production of digital maps, and performing analysis of larger dataset to answer specific research questions. Project is 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. Offered in summer only. P/NP or letter grading.

CM130. Space and Place. (4) Formerly numbered M130. (Same as World Arts and Cultures CM130) 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 nonbuilt and built environments, which are built and used by members of small-scale, traditional, and transitional communities around world. Course typically scheduled with course CM230. P/NP or letter grading.

131. Issues in Contemporary Design. (5) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. How global design culture today operates as part of set of spatial, economic, political, and social discourses. From development of cities to new formal languages in architecture, consequences of fact that global lives are spent in controlled designed environments, including role that research and interdisciplinarity play today in influencing design ideas and processes, as well as how design is influenced by technology and new urban conditions. Letter grading.

132. Domestic Architecture: Critical History. (5) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. Investigation of relationship between culture and design through medium
of domestic architecture, from colonial living arrangements of antiquity to functional and automated ideals of modern movement. Exploration of how design of domestic interior has evolved to express and accommodate contemporary developments in lifestyle and taste. Lecture, 90 minutes.

133. Modernism and Metropolis. (S) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. Introduction to emergence of contemporary metropolis through series of comparative urban explorations that begin in Los Angeles and extend to engage range of cities, including key examples from Asia to South America. Modern project can be seen as situated within a complex global, urban, city and suburb, taken together, exist in complex complicating of aesthetic, political, spatial, economic, technological, and social issues. Letter grading.

141. Technology I: Projections. (S) Laboratory, 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-dimensional drawing and modeling. Analog and digital techniques and opportunity afforded by moving between both. Analog techniques include orthographic and axonometric projection. Digital techniques focus on computational visualization fundamentals, including bitmap and vector graphic imaging using Adobe suite and modeling using Rhinoceros. Letter grading.

142. Technology II: Building Materials and Methods. (S) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to construction systems and materials in relation to design, such as framed, bearing wall, or hybrid systems. Graphic conventions and organization of construction documents. Letter grading.

143. Technology III: Digital Technology. (S) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Overview of three-dimensional computer-aided visualization concepts, techniques, and use relative to process of design and visual communication. Basic representation methods and tools and introduction to architectural concepts required to dynamically interact with computer and to explore and understand communicative capacities of different methods of representation. Explanation of bitmap versus vector graphics, typography, basic digital output and input, Web and, introduction to three-dimensional digital modeling and fabrication. Letter grading.

CM153. Introduction to Sustainable Architecture and Community Planning. (S) Lecture, three hours. Emphasis on environmental design and planning. Focus on sustainable design of buildings and communities. Emphasis on energy efficiency, renewable energy, and appropriate use of resources, including materials, water, and land. Concurrently scheduled with course CM247A. Letter grading.


188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: 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 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. (3) 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. Enforced corequisite: course 189A. Honors students only. Letter grading.

191. Interventions: Urban Humanities in Action (Capstone Studio). (4) Seminar, four hours; studio, one hour; research, one hour; outside study, 11 hours. Using Los Angeles as laboratory, students address issues of spatial justice through scholarly and practical urban explorations. Preparation and presentation of digital technolo- gies introduced in Digital Humanities 30 and theoretical knowledge learned in Digital Humanities 151 to create urban humanist action-projects. Letter grading.

199. Directed Research or Senior Project in Architecture and Urban Design. (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. Individual contract required. P/NP or letter grading.

Graduate Courses


M220. Introduction to Computers. (2) Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Introduction to basic concepts, skills, and theoretical aspects of computer-aided architecture design microcomputer skills. Applications selected are common found in professional offices. Two- and three-di- mensional representation (e.g., drafting, painting, multimedia, hypermedia, and modeling). Letter grading.

M226C. Computer Visualization. (4) Lecture, three hours. Designed for graduate students. Concept and techniques of computer visualization of artifacts, including realistic rendering and animation. Letter grading.

M227D. Design and Building Models. (4) Lecture, three hours. Review of range of information and knowledge potentially used in design. Knowledge rep- resentation, abstraction, and construction of design space. Development of knowledge used in areas of design, how it can be identified, analyzed, and structured. Letter grading.

M230. Space and Place. (4) (Same as World Arts and Cultures M230) 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 be-ings and their created environments. Emphasis on common, ordinary, anonymous, vernacular nonbuilt and built environments, which are built and used by members of small-scale, traditional, and transitional communities. Emphasis on area and community scheduling with course CM130. S/U or letter grading.

M247A. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Urban Planning M291.) Lecture, three hours. Relationship of built environment to natural environment through whole systems 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. S/U or letter grading.

M271. Elements of Urban Design. (4) (Same as Urban Planning M291) Lecture, three hours. Overview of basic knowledge of elements and methods of urban design. Multidisciplinary approach leading to understanding of political, socioeconomic, and technol- ogical frameworks of urban systems and its dynamic interrelations. S/U or letter grading.

M272. Real Estate Development and Finance. (4) (Same as Urban Planning M272.) Lecture, two hours; workshop, two hours; outside study, eight hours. Requisites: Urban Planning 220A, 220B. Introduction to real estate development process specifically geared to students in planning, architecture, and design. Financial decision model, market studies, designs, loan packages, development plan, and feasibility studies. Lectures and projects integrate development process with proposed design solutions that are interactively modified to meet economic feasibility tests. S/U or letter grading.

M289. Roman Architecture and Urbanism. (4) Lecture, three hours. Exploration of how architecture operates in relation to broader cultural, historical, and theoretical issues. May be repeated for maximum of 30 units with different topics. Letter grading.

Special Topics in Architecture and Urban Design. (2 to 4) Lecture, two hours; discussion, two hours. Selected academic topics initiated by students, student teams, or faculty and directed by faculty member. May be repeated for credit. S/U or letter grading.

Special Topics in Critical Studies in Architectural Culture. (2 to 4) Lecture, three hours; discussion, one hour; outside study, 11 hours. Designed for graduate students. Exploration of how architecture operates in relation to broader cultural, historical, and theoretical issues. May be repeated for maximum of 30 units with different topics. S/U or letter grading.

M291. Theory of Architectural Programming. (4) Lecture, three hours. Exploration of concepts and methods of architectural programming and its interrela- tion to design process; planning of design process; various techniques for determination of program content, basic conditions, resources, and constraints; identification of solution types for given situations. S/U or letter grading.

M293. Politics, Ideology, and Design. (4) (Same as Urban Planning M293.) Lecture, three hours. Exploration of cultural and political context of architecture and planning work. Examination of theory and practice forming the perspective of varied physical environments and to set of current spatialized conceptual. Consideration of theoretical propositions that are shaping present urban and architectural de- bate and concrete case studies where politics and ideology shape design process. Letter grading.

294A-294B. Environmental Psychology. (4-4) Lecture, three hours. Introduction to models, concepts, and theories concerning impact 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. S/U or 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 speculative and projective methods of architec- tural and urban design to better understand contem- porary state of human environment. Focus on Los An- geles as laboratory for urban and cultural, social, and political issues. Letter grading.

M296. Prosemminar: Critical Studies in Architectural Culture. (4) Seminar, three hours. Orientation for PhD students in tradition of cultural analysis, scholarship, and research and to current research directions and questions, through intensive reading and critical discussion. Letter 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.

401. Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate-level studies (courses 412, 413, 414). Students interested in formal design (through lottery) from several different projects focusing on special topics in architectural and urban design to be offered by faculty members. May be repeated for credit. S/U grading.

402. Final Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours; Preparation: satisfactory completion of intermediate- and advanced-level studios for MArch I students; satisfactory completion of advanced-level studios and fourth-term standing for MArch II students. Students may choose (through lottery) from several different advanced studio projects focusing on special topics in architectural and urban design to be offered by faculty members. Exit document (analytic paper with graphic component that critically examines final student design work) required at completion of course. Preparation: satisfactory completion of intermediate- and advanced-level studies (courses 412, 413, 414, 415) or MArch II student. Course 403A is requisite to 403B, which is requisite to 403C. In-depth research phase (courses 403A, 403B and advanced studio project (course 403C), with focus on number of different special topics in architecture and urban design. In Progress (403A, 403B) and letter (403C) grading.

404. Joint Planning/Architecture Studio. (4) (Same as Urban Planning 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 households; Pico-Aliso Housing, Boyle Heights; working with resident leader at Los Angeles City public housing developments. S/U or letter grading.

411. Introductory Design Studio. (6) Studio, 12 hours; outside study, six hours. Introduction to sketching, drawing, perspectives, CAD. Architectural composition is in progress. Emphasis is placed on understanding the elements of architecture. After each is studied by means of manipulative exercise that allows for experimentation of its intrinsic possibilities, students undertake series of closely controlled exercises dealing with combining elements and then design small buildings. Letter grading.

412. Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: course 411. Concentration on basic skills, leading to projects exploring architectural program in relation to design process and, particularly, implications of program on architectural forms and concepts. In second phase, introduction of structural elements to fulfill program requirements and to support and further develop intended forms and concepts. Letter grading.

413. Building Design with Landscape Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: course 412. Introduction to theoretical and technical issues such as site planning, urban design, landscape design, building typology, building design and site planningcel relationship, water, landforms, and co-plants in natural light, heat, and ventilation. Letter grading.

414. Major Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: course 413. Designed for second-year graduate students. Introduction to issues such as programming and program manipulation, site planning, urban design, and integration of technical systems and architectural expression. Emphasis either on treatment in breadth of large-scale projects or exploration in depth and detail of smaller-scale projects. Students learn to integrate structure and environmental control and to present their ideas in graphic or model form. Letter grading.

415. Comprehensive Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: course 414. Culmination of core sequence (courses 411 through 414), with focus on development phase of project. Technical concerns such as lighting, material innovation, sustainability, construction documents, and building envelopes to be considered critical to generation of architectural form. Techniques and concepts developed in design of single building project. Letter grading.


436. 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.


496. 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.

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.

564. Directed Individual Research and Study in Architecture and Urban Design. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U grading.

598. Preparation in Architecture/Urban Design for Master’s Thesis. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U grading.


ART
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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. Bachelor of Arts degree specializations include ceramics, new genres, painting and drawing, photography, and sculpture. An interdisciplinary studio option is offered within the MFA program. In addition to departmental labs, Art majors have access to the art resources at UCLA and in the Los Angeles community.

The Art Department reserves the right to use documentation and reproductions of student art work from studio courses, student exhibitions, and other records of creative work in publications including, but not limited to, the undergraduate and graduate brochures and publications, department and school websites, and presentations and events related to student recruitment and outreach.

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 individual creative work 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 analysis of works of art to participate in a studio critique.

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 techniques 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 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.

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, 145, 147, 148, one course from Art History M110A through M185, 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 elective requirement.

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.


21A. Production: Photographic Print. (2) Studio, four hours. Required 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. Instruction in postproduction skills and tools for editing and altering images and producing high-quality printed images. 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 shooting and recording setups and techniques, including handheld, fig-rig, dolly-shots, and green screens. Introduction to and development of familiarity with post-production software and processes of editing, animating, exporting, and presenting high-quality sound and moving image works. Letter grading.

31A. Modernism. (5) Lecture, three hours; discussion, one hour; field trips, three hours. Impact of modernist thought on art and society from mid-19th through early-20th centuries, exploration of origins, development, theory, and practice of modernism in Europe and U.S. Letter grading.

31B. 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. Continuation of impact of modernist ideas through mid-20th century, with focus primarily on work made from 1920s to 1960s. Letter grading.

31C. 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. Continuation of impact of modernist ideas through latter part of 20th century, covering shift from modernism to postmodernist practices and theories, with focus on work made from 1960s to present. 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 and led by an instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or 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 en-
Upper-Division Courses

100. Issues in Contemporary Art. (5) Lecture, three hours; discussion; one course; screenings/research, 11 hours. Requisites: courses 31A, 31B, 31C. Selected topics in theoretical, critical, aesthetic, and historical studies and their relevance to practicing artists. May be repeated. P/NP grading.

130. Advanced Drawing. (5) Studio, eight hours; seven hours arranged. Requisite: course 1A. Drawing as both independent expressive medium and as means of visualization. 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 1A. 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 1D. Emphasis to be selected by faculty members from one or 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 1C. Selected studies in fine printmaking, historical and contemporary: woodcut, etching and 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 ceramics, with emphasis on individualized creative experimentation with materials and techniques introduced in course. Methods and processes to be selected from range of possibilities, including hand- and machine-tooling, modeling, and use of molds, slipcasting, and use of potter's wheel. May be repeated for maximum of 20 units. Letter grading.

147. Advanced Photography. (5) Studio, eight hours; seven hours arranged. Requisite: course 1B. Selected projects in photography and related media, concentrating on development of individual students' 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. Selected studies in ceramics, with emphasis on individualized creative experimentation with materials and techniques introduced in course. Methods and processes to be selected from range of possibilities, including hand- and machine-tooling, modeling, 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, four to eight hours; two to four hours arranged. Course title, art therapy, practice, and criticism, offering students opportunity to explore these issues in studio context through critique of work and discussion of recommended readings. May be repeated for maximum of 16 units. P/NP or letter grading.

C180. Seminar: Art. (4) Seminar, three hours. Limited to junior/senior Art majors. 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 interpretive system of meaning, beginning with individual works and proceeding to analysis of exhibitions and 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. Introduction to 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 that may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Concurrently scheduled with course C283. Letter grading.

C184. Research Center. May be repeated. P/NP grading.

M196C. Beyond Mexican Mural: Advanced Murals and Community Development. (4) Same as Chicana and Chicano Studies M186C and World Arts and Cultures M125C) Studio/lecture, six hours. Requisites: courses M186B, M186BL. 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 through installation, documentation, and deduction, 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. Exploration of critical issues regarding development 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.

1885A. 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 prepa- ration of syllabus. Individual contract with faculty mentor required. May not be repeated. 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 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.

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 tutorial studio projects or research, to present seminar-style sessions in which student-researchers engage in an extended, in-depth discussion with faculty. Open to students during scheduled hours with laboratory tech support, it offers instruction as students independently in development 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 and produce large-scale painted and digitally generated image and/or painting for placement in community. May be repeated for maximum of 4 units. P/NP grading.

193. Journal Club Seminars: Current Topics in Art. (1) Seminar, three hours. Limited to junior/senior Art majors. Discussion of selected current exhibitions, vis- a-vis art theory, lecture, screenings, and exhibitions 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 internship in supervised setting in community agency, museum, or institution. Regular basis with instructor and provide periodic reports of their experience. Only 4 units may be applied toward upper-division elective major requirement. May be
repeated for maximum of 8 units. Individual contract with supervising faculty member required. S/U 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 of project or mastery of subject matter required. May be repeated for maximum of 8 units. Individual contract required. Letter grading.

198. Honors Research in Art. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average overall, 3.5 grade-point average in major. Corequisite: course 190. Limited to junior/senior Art majors. Development and completion of comprehensive research or studio project under direct supervision of faculty member. May be repeated for maximum of 8 units. Individual contract required. Letter grading.

Graduate Courses

271. Graduate Painting. (2 to 8) Studio, eight hours. Study of 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. Study of 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 study 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.

275. Graduate New Genres. (2 to 8) Studio, eight hours. Study of new genres in art, including installation, performance, video, film, and other nontraditional media and processes. 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 practice utilizing ceramic media. Emphasis on development of significant body of original work reflecting student's expressive and theoretical concerns. May be repeated for credit. 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 methods, to develop significant body of original artwork that reflects their concerns and furthers their artistic goals. May be repeated for credit. Letter grading.

C280. 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, commodification, and censorship. May be repeated for credit. Concurrently scheduled with course C180. Letter grading.

C281. 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 intensive study and proceeding to on-site analysis of current exhibitions. May be repeated for credit. Concurrently scheduled with course C181. Letter grading.

C282. 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.

C283. 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.

C287. 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, 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.

400A-400B. 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.

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 practices of teaching art at college level, as well as role of teaching assistants 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 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.
Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper-division art history courses as follows:


3. Additional art history electives 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 or for students who are interested in carrying out a faculty-approved independent study or assignment. All senior Art History majors who have completed a minimum of six upper-division courses in the department and an overall GPA of 3.0 or better are eligible to apply. The art history student affairs officer will select a student at 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.

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, 31.

Required Upper-Division Courses (20 units): Five art history courses as follows:


Arts History BA

Capstone Program

Learning Outcomes

The Art History major has the following learning outcomes:

• Accurate identification of major works of art within periods, cultures, or genres comprising various art history subfields

• Analysis of individual works of art using appropriate art history terminology; and placement of them in their aesthetic, historical, and cultural contexts

• Identification and characterization of significant artistic traditions from chronologically and culturally disparate societies

• Conduct original research, employing appropriate art history theories and methods, and critical use of primary and secondary sources

• Formulation of effective and convincing written and oral arguments, and placement of them within the larger interpretive traditions of the field

Preparation for the Major

Required: Two courses from Art History 20 through 25 and two courses from 27 through 31. It is strongly recommended that the courses be taken prior to enrollment in upper-division courses. Some of these courses serve as requisites to certain upper-division courses.

Transfer Students

Transfer applicants to the Art History major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two art history courses in ancient, Renaissance and baroque, medieval, or modern art and two courses in African, Asian, or pre-Columbian art.
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 the field. Expertise and familiarity with many paths of discovery at UCLA. P/NP grading.

20. Ancient Art. (5) Lecture, three hours; quiz, one hour; museum field trips. Introduction to art, architecture, and cultural contexts of Ancient Near East and Mediterranean regions from circa 3000 to 1000 BC. 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 diverse and increasingly connected. Focus on factors that have affected architecture globally and those that give regions, cultures, and historical periods their particular qualities. Topics include architectural and urban ramifications of modern self-consciousness, nationalism and internationalism, industrialism, colonialism and anti-colonialism, and new art and architectural theories. 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.

26. Art and Architecture of Ancient Americas. (5) Lecture, three hours; discussion, one hour; museum field trips. Introduction to art, architecture, and urbanism of Americas (North to South) from earliest settlement until AD 1450. Analysis of variety of media within their historical and cultural context. P/NP or letter grading.

27. 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.

28. 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.

29. Art of India and Southeast Asia. (5) Lecture, three hours; discussion, one hour; museum field trips. Discussion of selection of monuments and objects from Indian subcontinent and Southeast Asia using 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.

30. 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.

31. 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 lecture course. In 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, three hours per week. Research for love of subject in specified field for advanced under-graduate students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding the course), Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

100. Art Historical Theories and Methodologies. (4) Seminar, three hours. Requisites: three courses from 20 through 31. Critical examination of history of discipline of art history, with studies of various theoretical, critical, and methodological approaches to visual arts. Letter grading.

101A, 101B. Art and Architecture of Ancient Egypt, Pre-dynastic Period to New Kingdom. (4) Same as Ancient 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.

101B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) Same as Ancient 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.

101C. Ancient Egyptian Temple and City of Thebes. (4) Same as Ancient Near East M1101C, 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 provides historical, iatistic representation, architectural development, and social and political transformations echoed throughout all of ancient Egypt. Investigation of ritual linking of temples on Nile’s eastern and western banks through festival processions, chronological changes in function and form of Theban temples through time, and statuary program of individual temples. P/NP or letter grading.

111. Minoan Art and Archaeology. (4) Same as Classics M153A, Lecture, three hours. Requisite: course 20 or Classics 10 or 51A. Study of development of art and architecture in Minoan Crete from circa 3000 to 1000 BC. P/NP or letter grading.

112A. Mycenaean Art and Archaeology. (4) Same as Classics M153B, Lecture, three hours. Requisite: course 20 or Classics 10 or 51A. Study of development of art and architecture of Mycenaean Greece from circa 2000 to 1000 BC. P/NP or letter grading.

112B. Archaic Greek Art and Archaeology. (4) Same as Classics M153C, Lecture, three hours. Requisite: course 20 or Classics 10 or 51A. Study of development of art and architecture of Greek world from approximately 800 through 490 BC. P/NP or letter grading.

112C. Classical Greek Art and Archaeology. (4) Same as Classics M153D, Lecture, three hours. Requisite: course 20 or Classics 10 or 51A. Study of development of art and architecture of Greek world from middle of 5th century BC., including transmittal of Greek forms to Rome. P/NP or letter grading.

113A. Etruscan Art and Archaeology. (4) Same as Classics M153F, Lecture, three hours. Requisite: course 20 or Classics 20 or 51B. Arts of Italic peninsula from circa 1000 BC. to end of Roman Republic. P/NP or letter grading.

113B. 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.

113C. 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.


114A. Greco-Roman Architecture; M114B. Greco-Roman Sculpture; M114C. Greco-Roman Painting.

114D. 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. Concurrency scheduled with course C214D. P/NP or letter grading.
CM115A. Late Antique Art and Architecture. (4) [Formerly numbered C115A.] (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.


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 im 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.

M119A. Medieval Armenian Art. (4) [Same as Armenian M172.] Lecture, three hours. Examination of cultural and historical context of Armenian miniature paintings. P/NP or letter grading.

M118B. Armenian Painting, 17th to 20th Century. (4) [Same as Armenian M173.] Lecture, three hours. Overview of development of modern Armenian painting of Khanate of Persia 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.

119A. Western Islamic Art. (4) Lecture, three hours. From Tigris and Euphrates Rivers to Spain, 7th to 16th century. P/NP or letter grading.

119B. 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.

M119C. 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 remains of small Egyptian port, broad 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.

M119D. 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 Muslims 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, charting changes 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.


121D. Late Renaissance Art: Counter-Reformation. (4) Lecture, three hours. Requisite: 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. Requisite: course C125A. Art and architecture of Northern Europe, 16th to late 17th century. P/NP or letter grading.

C126. 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 C217B. P/NP or letter grading.


C128B. Contemporary Art, 1940s to 1950s. (4) Lecture, three hours. Study of modern 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.

C129A. Surrealism, 1924 to 1939. (4) Lecture, three hours. Discussion, one hour. Requisite: course 23. Study of movement in France, with special attention to dissident surrealism of writer and philosopher Georges Bataille, as well as to challenge posed by surrealism’s engagement with lessons of psychoanalysis. Concurrently scheduled with course C229C. P/NP or letter grading.

C130. Selected Topics in Modern Art. (4) Lecture, three hours. Requisite: 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.


C132. Selected Topics in Contemporary Art. (4) Lecture, three hours. Requisite: 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. Requisite: course 23. Study of political and cultural history of America from Colonial period to 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. Requisite: course 23. Study of political and cultural history of America 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. Requisite: course 23. Study of political and cultural history of America 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 re-

C151. 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 2251A, P/NP or letter grading.

C152A. Arts of Korea (4) Lecture, three hours; museum field trip. Introduction to arts and archaeology on Korean peninsula from Neolithic beginnings to early 20th century through analysis and discussion of selection of monuments and objects within technological, stylistic, religious, cultural, and sociopolitical contexts. Examination of construction of concepts of history and art under colonial and nationalist perspectives, with regard to historical and contemporary East Asian cultural and political interrelations. P/NP or letter grading.

C152B. History of Korean Painting (4) Lecture, three hours. Limited to juniors/seniors. History of Korean ceramics from Neolithic period to 19th century, with special emphasis on technological and stylistic developments. Concurrently scheduled with course 2252B. P/NP or letter grading.

C152D. History of Korean Buddhist Art (4) Lecture, three hours. Limited to juniors/seniors. 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 2252C, P/NP or letter grading.

C153. Selected Topics in Korean Art (4) Lecture, three hours. Limited to juniors/seniors. 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 2253A, P/NP or letter grading.

154A. Early Art of India (4) Lecture, three hours. Not open to freshmen. Survey of Indian art from Indus Valley civilizations to 19th century. Emphasis on Buddhist and Hindu backgrounds of arts. P/NP or letter grading.

154B. Later Art of India (4) Lecture, three hours. Not open to freshmen. Survey of Indian art from 10th to 19th century. Decline of Buddhism; efflorescence of Hindu architecture, Muslim painting and architecture, and Rajput painting. P/NP or letter grading.

154C. Advanced Indian Art (4) Lecture, three hours. Required: course 154A. Study in Indian sculpture and architecture. Concurrently scheduled with course 2254A. P/NP or letter grading.

154D. Modern and Contemporary South Asian Art (4) Lecture, three hours; discussion, one hour (when scheduled). Topics in contemporary South Asian art from 1900 to present. P/NP or letter grading.

155. 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 2255A. P/NP or letter grading.

156. Arts of Southeast Asia (4) Lecture, three hours. Not open to freshmen. Southeast Asian art from its beginning in prehistory through 19th century. Study of art of selected cultures from Burma, Malaysia, Thailand, Cambodia, Vietnam, and Indonesia. P/NP or letter grading.
C158A. 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 C260A. P/NP or letter grading.

C160. Art and Empire. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of relationships between art and imperial ideologies and introduction to current issues in colonial studies and postcolonial criticism. Concurrently scheduled with course C260A. P/NP or letter grading.

C161. Cities in History. (4) Lecture, three hours; discussion, one hour. Examination of history of cities worldwide in contemporary context of their aesthetic, social, cultural, and symbolic contexts. History of cities from origins of urbanism to 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 reflect interests of individual regular and/or 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 exhibition theory and practice. Concurrently scheduled with course C270A. P/NP or letter grading.

C170B. Museum Studies Practicum. (2 to 4) Lecture, three hours. To be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to research, curation, and evaluation for internships and exhibitions as well as original context of each object. Focus on people behind objects, technologies, or material characteristics. P/NP or letter grading.

C170C. P/NP or letter grading.

C171. 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 C271. 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, as well as rabbit and other factors affecting an object's condition. Materials and techniques used to create cultural heritage materials, in relation to preservation efforts needed to prevent decay and loss. Introduction to conservation issues related to sites, buildings, monuments, and 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 variety of cultures. 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 described in many examples from Renaissance and earlier panel paintings, as well as antiques and traditional African arts. Background of art restoration and conservation discussed in relation to authenticity and technical studies. Scientific tools that form basis of another kind of connoisseurship described in terms of dating techniques that can be applied to works of art and technical methods by which material constituents of 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 Ancient Near East M179.) 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. Student research may be presented at conference or may be repeated for different stakeholders that relate to material under consideration. Consideration of narrative exhibit and how objects and their arrangement convey deliberate or accidental messages. Consideration of narratives and relationships 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. Designed for juniors/seniors. Selected aspects of art history explored through readings, discussion, research papers, and oral presentations. May be repeated twice for credit. 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 research, curation, and evaluation for internships and exhibitions as well as original context of each object. Focus on people behind objects, technologies, or material characteristics. P/NP or letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course C170A. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to research, curation, and evaluation for internships and exhibitions as well as original context of each object. Focus on people behind objects, technologies, or material characteristics. P/NP or letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course C170A. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to research, curation, and evaluation for internships and exhibitions as well as original context of each object. Focus on people behind objects, technologies, or material characteristics. 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 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. Museum Studies Internship. (3) Tutorial, five hours; fieldwork, four hours. Requisite: 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 at public programs and related events. Students meet on regular basis with faculty mentor to discuss projects and their arrangement convey deliberate or accidental messages. Consideration of narrative exhibit and how objects and their arrangement convey deliberate or accidental messages. Consideration of narratives and relationships as well as original context of each object. Focus on people behind objects, technologies, or material characteristics. P/NP or letter grading.

197A. Individual Studies in Art History. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to seniors. Individual intensive study for majors, 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 maximum of 8 units. Eight units may be applied toward major. Individual contract required. P/NP or letter grading.

197B. Individual Capstone Studies. (2) Tutorial, two hours. Limited to departmental junior/senior majors and minors. Guided study led by faculty supervisor. Instructor meets with student to help design culminating capstone project so it conforms to departmental capstone project guidelines. Must be taken in conjunction and concurrently with one upper-division departmental course. May not be repeated for credit. Individual contract required. P/NP or letter grading.

198A-198B. Honors Research in Art History. (4–4) Tutorial, to be arranged. Preparation: completion of minimum of four upper-division art history courses with 3.5 departments, 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 under supervision of approval faculty mentor. Individual honors thesis of approximately 30 pages. Individual contract required. In Progress (198A) and letter (198B).

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. Culminating 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 historiographic traditions of specific areas and fields within discipline of art history, concentrating on particular time periods, geographical areas, artistic traditions, or work of one or more authors. Required 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 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 Bronze Age to Late period and Greco-Roman period. Students should be ready to prepare for every meeting briefing of topic from archaeological memoirs, not to exceed two hours per student. Some lectures 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 cul-
tured Crete, Greece, Cyclades, or Western 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 in Parthian art. Site-by-site survey of Near East (Afghanistan, Iran, Iraq, Syria) during period of Greek and Parthian control. May be repeated for credit with consent of adviser. S/U or letter grading.

212C. Classical Art. (4) Seminar, two hours. Studies in Greek and 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, four hours. Emphasis in Greco-Roman art and archaeology. Studies of specific topics (e.g., particular artist, trend, or problem). Research papers and oral reports required. May be repeated for credit with consent of adviser. S/U or letter grading.

C225. Southern Baroque Art. (4) Lecture, three hours. Art and architecture of Spain or Italy, 16th to late 17th century. Concurrently scheduled with course C125A. S/U or letter grading.

226. 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 C115D. S/U or letter grading.

C226. 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 C126. S/U or letter grading.


C228A. Modern Art, 1900 to 1945. (4) Lecture, three hours. Requisite: course 228A or 228B or 228C. Modernism from Fauvism to abstract expressionism. Topics include primitivism, gender, and sexuality in modernist art; origins of abstraction, collage, photography, and montage and their development; rise of automatism and chance procedures; art, utopia, and political revolution; antimodernism and fascism; mass culture, machine paradigm, and work of art in age of mechanical reproduction. Concurrently scheduled with course C129A. S/U or letter grading.

C229A. Modern Art, 1900 to 1950. (4) Lecture, three hours; discussion, one hour. Inquiry into 20th-century modernism from Fauvism to abstract expressionism. Topics include primitivism, gender, and sexuality in modernist art; origins of abstraction, collage, photography, and montage and their development; rise of automatism and chance procedures; art, utopia, and political revolution; antimodernism and fascism; mass culture, machine paradigm, and work of art in age of mechanical reproduction. Concurrently scheduled with course C129A. S/U or letter grading.

C229B. Dada, 1915 to 1923. (4) Lecture, three hours; discussion, one hour (when scheduled). Introduction to modernism and historical avant-garde of early 20th century, tracing in detail emergence of Dada avant-garde in its various geographical locales during and after World War I. Visual art, literature, film, and performance addressed, with special attention to invention of series of avant-garde strategies crucial to Dada: ready-made, chance procedures, mechanical drawing, and photomontage. Concurrently scheduled with course C129B. S/U or letter grading.

C229C. Surrealism, 1924 to 1939. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of art, literature, and film associated with surrealism in France, with special attention to dissolution of realism, creation of new art forms, and development of Surrealist movement in the U.S. Readiness of Surrealism’s engagement with the psychoanalytic. Concurrently scheduled with course C129C. S/U or letter grading.

C230. European Art, 1700 to 1900. (4) Seminar, two hours. May be repeated for credit with consent of adviser. S/U or letter grading.

C230B–M230C. Seminars: Modern European History. (4–4) (Same as History M230A-M230B) Seminar, three hours. Course M230B is enforced requisite to M230C. May be repeated for credit with consent of adviser. In Progress (M230B) and letter (M230C) grades.

230D. Modern Art. (4) Seminar, two hours. Changing topics in modern art (including illustration and other popular forms) that reflect interests of particular faculty members. Political and economic factors affecting arts of France and Germany at various times. May be repeated for credit with consent of adviser. S/U or letter grading.

C231A. Contemporary Art, 1940s to 1950s. (4) Lecture, three hours. Requisite: course C230. Study of major artistic and cultural trends following World War II in U.S. and Europe, covering abstract expressionism to pop art. Concurrently scheduled with course C131A. S/U or letter grading.


C233A. 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. 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. 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.

C233D. American Art, 1900 to 1945. (4) Lecture, three hours. Painting, sculpture, and architecture in U.S. from Civil War to turn of century. Concurrently scheduled with course C133D. S/U or letter grading.


C235A. African American Art. (4) (Same as African American Studies CM235A) 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 CM235A. S/U or letter grading.

C235B. African American Art, 1900 to 1963. (4) (Same as African American Studies CM235B) 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 CM235B. S/U or letter grading.

C236. Topics in African American Art. (4) (Same as African American Studies CM236) Seminar, three hours. Requisite: course C235A 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.

C239A. Maya Art and Architecture. (4) Lecture, three hours. Requisite: course 27. Study of art of selected Maya-speaking cultures of southern Mesoamerica from circa 2000 BC to Conquest, with partic-
C244B. 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 C144B. 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.


C248F. 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. Seminar. 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.


C251A. Selected Topics in Japanese Art. (4) Lecture, three hours. Seminar. Three hours. 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 topics and social status of artists during Choson dynasty (1392-1910). Concurrently scheduled with course C152B. 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 C153A. 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 recent 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.

C254B. Modern and Contemporary South Asian Art. (4) Lecture, three hours. Study in 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 C155A. S/U or letter grading.

C256A. Indian Art. (4) Lecture, three hours. Concurrently scheduled with course C258A. S/U or letter grading.

C258A. Topics in Asian Archaeology. (4) Same as Anthropology M216. Lecture, three hours. Advanced studies in secular and religious artistic traditions of India. May be repeated for credit with consent of advisor. S/U or letter grading.

C258B. Topics in Asian Archaeology. (4) Same as Anthropology M216. Seminar, three hours. Advanced studies in secular and religious artistic traditions of India. May be repeated for credit with consent of advisor. S/U or letter grading.

C258C. 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 advisor. 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. 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 published and distributed materials, and of museum and gallery 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 twice for credit with topic change. Concurrently scheduled with course C171. S/U or letter grading.

C272. Selected Topics in Art History. (4) Seminar, three hours. Requisites: courses 27 and 172. History of art under different art-historical perspectives, methods, and theories. Individual studies, with emphasis on recent presentation. Group studies may be linked to exhibition projects. May be repeated with consent of instructor. S/U or letter grading.

C273. 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 contemporary art. Concurrently scheduled with course C173. S/U or letter grading.

C274A. Artists in Modern and Contemporary China. (4) Lecture, three hours. Students study and present on artists in China from the late 19th century to the present. Examination of important developments in Chinese contemporary art. Concurrently scheduled with course C174A. S/U or letter grading.


C276. Seminar in Art History. (4) Seminar, three hours. Variable topics in art history that reflect interests of individual regular and/or visiting faculty members. Concurrently scheduled with course C176. S/U or letter grading.

C277. Art History Practicum. (2 to 4) Practicum, three hours. Concurrently scheduled with course C177. S/U or letter grading.

C278. Advanced Topics in Art History. (4) Seminar, three hours. Variable topics in art history that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C178. S/U or letter grading.
Sem  physical forms as well as aesthetic meanings that can significance of choices that artists make in choice of ma - to processes of construction, fabrication, mainte - works. (4)

C172B. S/U or letter grading. methods by which material constituents of works of -tions to authenticity and technical studies. Scien -art restoration and art conservation discussed in rela -ntiquities and traditional African arts. Background of -Lecture, three hours. Examination of concepts of au -n may not be repeated. S/U or letter grading.

C272C. Art: Fakes, Forgeries, and Authenticity. (4) Lecture, three hours. Examination of concepts of authen -city, originality, fakes, and forgeries in art. Over -view of problems inherent in concept of authenticity and description of many examples of problems related to this concept in seminars based on obj -ects from variety of cultures. Introduction to subject of fakes and account of three different areas of connois -seurship that are essential component of production, study, and scientific examination of fakes. Nature of art connoisseurship described in many examples from Renaissance and earlier panel paintings, as well as antiques and traditional African arts. Background of art restoration and art conservation discussed in rela -tionship to authenticity and technical studies. Scien -tific tools that form basis of another kind of connois -seurship described in terms of dating techniques that can be applied directly to works of art and technical methods by which material constituents of works of art are studied. Concurrently scheduled with course C172B, S/U or letter grading.

273. Studies in Materials and Production of Art -works. (2) Seminar, three hours. Designed to expose students to material properties and technical production issues related to making of artworks. Introduction to processes of construction, fabrication, mainte -nance, preservation, and more. Hands-on demonstra -tions and workshops to deepen understanding of sign -ificance of choices that artists make in choice of ma -terials. Processes of making that can impact final physical aesthetic appearances that can attach to it. Combination of theoretical, ethical, and practical questions that confront conservators as well as those specializing in technical art history. S/U or letter grading.

357. Teaching Apprentice Practicum. (1 to 4) Sem -inar, to be arranged. Preparation: apprentice personnel assignment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid -ance and supervision of regular faculty member re -sponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Art History. (1 to 4) Seminar, to be ar -ranged. Preparation: apprentice personnel assignment as teaching assistant, associate, or fellow. Des -igned for graduate students. Required of all new teaching assistants during Fall Quarter of their teaching assistant appointment. Workshop/seminar in teaching techniques and pedagogical issues, con -sisting of readings, discussions, and guest speakers on selected topics. May not be applied toward MA or PhD course requirements. S/U grading.

496. Teaching with Technology. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel assignment as teaching assistant, associate, or fellow. Designed for graduate students. Introduction to tech -nology and the adaptability to new apparatus and teaching assistants. Topics include exploring functions of teaching assistant archive, CCLE, MyUCLA, Grade -book, and Turnitin and ways to efficiently use these tools. Introduction to lesson planning and ways to es -tablish effective teaching strategies in and out of classroom. May not be applied toward MA or PhD 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, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC, UCLA 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 MA Comprehensive Examina -tion or PhD Qualifying Examinations. (2 to 12) Tuto -rial, to be arranged. S/U grading.


ARTS AND ARCHITECTURE
School of the Arts and Architecture
2200 Broad Art Center
Box 951620
Los Angeles, CA 90095-1620
School of the Arts and Architecture
310-206-3564
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) Lecture, four hours; discussion, one hour; field trips, two hours; outside study, seven hours. Through series of direct encounters with art and artists across global range of practices, course equips stu -dents with kinds of critical skills that enhance their un -derstanding of, and sharpen their appetite for, wide -range of artistic practices. Attendance at perfor -mance/art events outside normal class schedule is mandatory. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (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.

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.

99. Student Research Program. (1 to 3) 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.
The Department of Asian American Studies, founded in 2004, promotes the study of Asian and Pacific Islander Americans across a number of fields and disciplines.

Following the tradition of civil rights struggles of the 1960s and 1970s, the department values the social relevance of academy-based knowledge production, as well as the connection between academia, the Asian and Pacific Islander community, and other disadvantaged social groups. Faculty members in the department are likewise committed to offering a broad, inclusive, and flexible curriculum designed to meet maximum student needs, with emphasis on close mentorship, collaborative teaching, and engaged scholarship.

The department offers a Bachelor of Arts degree, an undergraduate Asian American Studies minor, a Master of Arts degree, and two concurrent degree programs (Asian American Studies MA/Public Health MPH with the Fielding School of Public Health Community Health Sciences Department and Asian American Studies MA/Social Welfare MSW with the Luskin School of Public Affairs Social Welfare Department). The Asian American Studies educational program performs the following missions: conducts teaching that enables students to learn, think, and practice in a nurturing and intellectually stimulating environment; equips students with theoretical and practical knowledge, as well as analytical and communicative skills that reflect the excellence of the faculty; and prepares students either for advanced graduate studies or for life after college as artists, citizens, entrepreneurs, political leaders, and professionals.

As an interdisciplinary field, the Asian American Studies curriculum examines the contemporary realities, diverse experiences, and histories of Asian and Pacific Islander Americans. The topical range of such examination includes community work and development, cultural production (including digital media and creative expression), gender, and generational dynamics, immigration and diaspora, political participation, social activism, and transnational encounters.

The teaching and research methods used by faculty members in the department are interdisciplinary and comparative in nature, with a healthy mix of quantitative, qualitative, interpretive, and applied approaches. These methods develop out of dynamic cross-fertilization among faculty expertise that registers both major intellectual shifts in the field and notable trends from disparate disciplines, professional practices, and epistemological traditions.

**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 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 as many of the following courses as 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
Asian American Studies Courses

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 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 courses, and file a petition with the undergraduate advisor, Assistant Dean for Undergraduate Academic Advising, 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.


No more than 4 graded units of Asian American Studies 195, 197, 198, and 199 may be applied toward the minor. Courses 192 and 196 may not be applied toward the minor. Only courses in the department or those multiple-listed with the department may be taken to fulfill requirements 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 (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 in the minor. Successful completion of the minor is indicated on the transcript and diploma.

In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

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 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.

M16. Leadership and Student-Initiated Activism. (2) Same as African American Studies M18. American Indian Studies M18, and Chicano and Chicana Studies M18.) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M168. 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. (5) 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. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 20W. 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. 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. 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 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 racialization, immigration, global capitalism, colonialism and postcolonialism, and social movements. P/NP or letter grading.

50W. Asian American Women. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 50. 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 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 racialization, immigration, global capitalism, colonialism and postcolonialism, and social movements. 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 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 grade only.

97. Variable Topics in Asian American Studies. (1 to 2) Tutorial, one to two hours. Current topics and particular research methods in Asian American studies through readings and other assignments. May be repeated for credit. 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


104B. Special Internships in Asian Pacific Communities. (4) Fieldwork, eight hours minimum. Requisite: course 104A or another Asian American studies course except 199. Academic and empirical work by providing students challenge of performing public service and community work in Asian Pacific or other multicultural 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 and sources for research on Asian American history. Historians have used wide 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, three 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 social, cultural, and literary practices. Themes and content vary by term. Independent 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 M122.) Lecture, three hours; field laboratory. Project-oriented methods course in conducting needs assessment in Asian American communities. Geographical information systems to be used to define problems and needs. Letter grading.

110. American Immigration Policy. (4) Seminar, three hours. Examination of determinants leading to U.S. immigration policy over time and its implications for demographics and political culture. Survey of issues and policies aimed at citizenship and immigrant integration. P/NP or 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 personal accounts, 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 M1102A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced prerequisite: composition 3 or 5. Survey of Asian American literature either produced from or thematically reflecting pre-1980 period. Issues include immigration, diaspora, generational conflict, appropriation of cultural traditions, ethnic/gender formation, intertextual dynamics, and social movement. Works by such authors as Edith Eto, Younghill Kang, Carlos Bulosan, Hisaye Yamamoto, John Okada, Frank Chin, and Maxine Hong Kingston. P/NP or letter grading.

M112B. Contemporary Asian American Literatures and Cultures. (4) (Same as English M1102B.) 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, minority and Orientalism, and meta-versus rice, in studies of novels, poetry, performance, memoirs, and essays. May be repeated for credit with topic or instructor change. P/NP or letter grading.

112C. Asian American Creative Writing. (4) Seminar, four hours. Preparation: English Composition 3 or 3H. Designed for juniors/seniors. Examination of margin of geographic and psychic spaces that Asian Americans inhabit outside American mainstream and specific factors, such as generation, ethnicity, gender, class, and sexual orientation, that shape individual’s unique margin. Balanced blend of reading and creative writing. P/NP or letter grading.

113. Asian Americans and Law. (4) Lecture, four hours. Survey of California case and legislative law directed specifically toward Asian Americans from 1850 to World War II and incarceration. Major subject areas include anti-Asian labor legislation, legal prohibition, legal rights to testify, Executive Order 9066, and equal educational opportunity for Asians. P/NP or letter grading.

114. Asian American Education and Schooling. (4) (Same as Education M115.) Seminar, four hours. Examination of existing body of research from various disciplines on Asian/Pacific American educational experiences. Letter grading.

115. Women and Community in Asian American Studies. (4) (Same as Psychology M107.) Lecture, three hours. Requisite: Psychology 10. Foundations 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 of 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 and Workplace Studies M1119.) Lecture, three hours. Examination of historical and contemporary labor issues in Asian and Pacific Islander American communities. Key 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 Independence. (4) 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, from social change documentaries to theatrical features and online talent. P/NP or letter grading.

121. Exploring Asian American Theater. (4) Lecture, four hours. Study of Asian American plays; students required to compose one act based on their own cultural heritage using class Explo- ration of scene study and acting exercises. P/NP or letter grading.

122A. Indigeneity, Empire, and Resistance in Pacific Islands. (4) Lecture, three hours. Introduction to indigenious and colonial histories of Pacific Islands. Discussions, film screenings, guest speakers, and reading assignments, with focus on issues of cultural survival, empire, indigenous resistance, sovereignty, and war. P/NP or letter grading.

122B. Gender and Film in Pacific. (4) Lecture, three hours. Requisite: course 122A. Exploration of role 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 aesthet- ical, 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 by asking Asian American studies contribute distinctly to contempor- ary 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. Discuss- ing readings, guest films, and reading assignments, with focus on issues of cultural survival, empire, indigeneity, migration, resistance, sovereignty, and war. P/NP or letter grading.

M129. Health Issues for Asian Americans and Pacific Islanders: Myth or Model? (4) (Same as Community Health Sciences M140D.) 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 re- search for these populations. Letter grading.


M130B. Chinese Immigrant Literature and Film. (4) (Same as Chinese M153 and Comparative Literature M117.) Lecture, three hours; discussion, one hour. Survey of sociological studies of Chinese immi- gration, with focus on international context, organiza- tion, and institutions of Chinese America and its inter- actions with social environment. P/NP or letter grading.

131B. Japanese Americans and Incarceration. (4) Seminar, three to four hours. Required: course 10 or 10W. Designed for juniors/seniors. In-depth analysis of key literature about mass incarceration of Japanese Americans during 1940s. Immediate and long-range effects on Japanese American community. Original research and paper based on primary sources held by University of California required. Letter grading.


133. Pilipino American Experience. (4) Lecture, three hours. Not open to freshmen. Survey of immigration history of Pilipino Americans and their contemporary issues such as status and property rights as they affect the status of Korean Americans and their community. 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 or 20 or 40. Service-learning course to engage and critically examine community organizing and community building. Open to students 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 Leader- ship Development Project Part I: Leadership. (4) Lecture, three to four hours. Limited to juniors/seniors. First term of two-term series on leadership development, with focus on intellectual and practical learning of leadership concepts and the development of leadership skills. P/NP or letter grading (credit to be given on completion of course 141B).

141B. Asian American and Pacific Islander Leader- ship Development Project Part II: Field Studies. (4) Lecture, two hours; fieldwork, three hours. Enforced requisite: course 141A. Limited to juniors/seniors. Second term of two-term series on leadership development, with focus on Asian American, Pacific Islander, and related communities in Los Angeles. Examination of different approaches and strategies to community building and maintenance. P/NP or letter grading.

142A. Ethnocommunications I: Introduction to Creating Community Media. (4) Seminar, three hours. Strong verbal communication 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 film, P/NP or letter grades 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 or letter grading.

142B. Ethnocommunications II: Intermediate Creating Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Intermediate application of social documentary theory and methodology. Use of digital video to create new approaches to visual storytelling, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Continuing instruction in use of digital technology and concepts. Topics include videography, composition, sound recording, editing and writing, techniques, editing, and writing treatments. Completion of community-based documentary required. Concurrently scheduled with course C242B or letter grading.


M134A. Fieldwork in Asian American and Pacific Islander Communities. (4) (Same as Anthropology 135B.) Lecture, three hours; discussion, one hour. Introduction to qualitative research methods and application of techniques in data collection, analysis, and reporting. Critical reflection of issues related to identity, migration, multiculturalism, tourism, and indigenous rights. Field excursions and guest lectures from local community included. Given in Hawai‘i. P/NP or letter grading.

M143B. Politics of Race, Ethnicity, Migration, and Multimedia. (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 immigration, and indigenous peoples, migrants, and existing racial and ethnic groups. P/NP or letter grading.

M143C. Ethnic Identity and Ethnic Relations in Ha- wai‘i. (4) (Same as Anthropology 116BQ.) Lecture, three hours; discussion, one hour. Continuing construction and expression of ethnic identity in various cultural forms and social contexts in Hawai‘i. Overview of theoretical perspectives and basic components of study of ethnic identity and ethnic relations. Discussion of historical and contemporary aspects of ethnic identity and ethnic relations in Hawai‘i. Given in Hawai‘i. P/NP or letter grading.


M161. Ethnic, Cultural, and Gender Issues in Amer- ican Healthcare Systems. (4) (Same as Health Policy 1110.) Lecture, two hours; discussion, one hour. Introduction to study of gender, ethnicity, and cultural diversity related to health status and health care delivery in U.S. Letter grading.

M163. Worker Center Movement: Next Wave Orga- nizing for Justice for Immigrant Workers. (4) (For- merly numbered M166C.) (Same as African American Studies 161, Chicana and Chicano Studies 110, and Labor and Workplace Studies M167.) Seminar, three hours. 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. Workers provide in promoting multiethnic and multiracial campaigns for promoting national and local movement for workers rights movement, with particular attention to labor and higher education. Overview of history of im- migrant rights movement and examination of develop- ments of coordination efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issues of immigrant students in higher education fields. Topics covered include immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, research on immigration and immigrant rights organizations, poetry and 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) (Same as Chicana and Chicano Studies 165B and Labor and Workplace Studies M166B.) Seminar, two hours. Required: course M166A. Expansion of research conducted by students in course M166 in re- search on immigration/labor/higher education, and evaluation of legislation and legal issues impacting un- documented students. Letter grading.

M166C. Research on Immigrant Students and Higher Education. (4) (Same as Chicana and Chicano Studies M156C and Labor and Workplace Studies M166C.) Seminar, three hours. Enforced requisite: courses M166A, M166B. Expansion of re- search conducted by students in courses M166A and M166B involving oral histories, research on immigra- tion/labor/higher education, and evaluation of legisla- tion and legal issues impacting undocumented stu- dents. Letter grading. Students sign up to work on showcasing all material collected throughout year. Letter grading.


M168. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as African American Studies M118, American Indian Studies M118, and Chicana and Chicano Studies M118.) Lecture, four hours. Examination of issues, 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 re- peated twice for credit. Letter grading.

M169. Constructing Race. (4) (Same as African American Studies M158P and Anthropology M144P) Lecture; three hours; discussion, one hour (when scheduled). Examination of race, socially constructed categories from anthropological perspective. Consider- ation of development of racial categories over time and in different regions, racial passing, multiracial identity in U.S., whiteness, race in popular culture, and race and identity. 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. Designed for juniors/seniors. 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 discussion on transnational aspects of wide range of historical and contemporary topics in context of Asia/Asian American experience. Building of linkages between roots of social constructions of race and multi-ethnicity within history that now constitute globalizing Asian America. Theoretical readings assigned. P/NP or letter grading.

171A. Critical Issues in U.S.-China Relations. (4) Lecture three hours. Not open to freshmen. Critical examination of U.S.-China relations in Pacific Rim and Taiwan, including study of historical, political, economic, and sociocultural factors that shape relations between China, Hong Kong, and Taiwan. P/NP or letter grading.


M172A. Introduction to U.S. and Diaspora. (4) Same as History M172A. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of complex interrelationships between U.S. colonialism, Philippine nationalism, history of Filipinos Americans, and Philippine diaspora in 20th century. P/NP or letter grading.


171F. Critical Issues in U.S.-Indonesia Relations. (4) Seminar, three to four hours. Limited to juniors/seniors. Examination of U.S.-Indonesia relations in Pacific Rim and Indonesian Americans and their communities. P/NP or letter grading.

M172C. Transnational Bollywood. (4) Same as Communication M172C. Lecture, three hours. Study of how popular Bollywood cinema materials engages colonial and postcolonial formations pertaining to gender, class and caste, sexuality, race, and economic liberalization in South Asia, as well as across South Asian communities in U.K., and Africa. Examination of how complex relationships between Bollywood and transnational South Asian diaspora enable us to better understand South Asian American communities. P/NP or letter grading.

M173. Topics in Vietnamese Cinema and/or Literature. (4) Same as Vietnamese CM173. Lecture, three hours; discussion, one hour. Knowledge of Vietnamese not required. Critical and historical examination of literary and/or filmic representations connected to developments in diaspora, and globalization. Original language course materials available for interested students. P/NP or letter grading.

174A. Special Courses in Comparative Race, Ethnicity, Gender, and Sexuality. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in selected comparative and international issues pertaining to transnationalism and diasporas. May be repeated for credit with topic change. P/NP or letter grading.

174B. Special Courses in Transnationalism and Diasporas. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in selected comparative and international issues pertaining to transnationalism and diasporas. May be repeated for credit with topic change. P/NP or letter grading.

175A. Topics in Comparative Race, Ethnicity, Gender, and Sexuality. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected comparative and international issues pertaining to transnationalism and diasporas. May be repeated for credit with topic change. P/NP or letter grading.

175B. Topics in Transnationalism and Diasporas. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected comparative and international issues pertaining to transnationalism and diasporas. May be repeated for credit with topic change. P/NP or letter grading.

176. Making Fiction Work: Filipinos and Its Elselfwhere. (4) Seminar, three hours. Requisite: one course from course 10, 10W, 20, 20W, 30, 30W, 40, 40W, 50, 50W, 123, 133, M171D or History M144C. Filipino 130A, 152, 155, or consent of instructor. Philippine literature and filmic art and the unique literary and cultural idiom that point for interdisciplinary study of cultural diversity, national identity formation, global migration, labor, rise of Asia, and borderlands. Critical study of difference, not as identitarian, celebratory approach of sameness; rather focus on shared struggles between minoritized groups in U.S. and shared histories of U.S. territorial possessions. May not be repeated for credit. P/NP or letter grading.

177. Social Movements in Guam and Pacific. (4) Lecture, three hours. Survey of immigrant and indigenious histories in Guam, Mariana Islands, and Oceania, Emphasis on Asian, Chamorro, and Pacific Islander communities; comparative perspective. May be repeated for credit with topic change. P/NP or letter grading.

185. Capstone Community-Based Research. (4) Seminar, one hour; fieldwork, three hours. Limited to seniors in computer science, Information Technology, and Africana studies. Designed to serve as complement to service learning requirement for major and minor and may be used for capstone requirement for major and minor. Students work as research team, are matched with one or more community groups, and must complete minimum of 40 fieldwork hours. Duties and responsibilities collaboratively determined by instructor, students, and sponsoring organization, administered in consultation with instructor. Letter grading.

186. Capstone Research Seminar. (4) Formerly numbered 187.) Seminar, three hours. Limited to se- nior departmental majors and minors. Synthesis and application of knowledge students have acquired through prior departmental courses so they can conduct in-depth research or creative-expression project. Themes may vary from term to term. Study may pursue independent work related to course theme with guidance from instructor, then share and critique other student work in progress. Letter grading.

187A. Special Courses in Research Methodologies. (4) Lecture, three hours; discussion, one hour (when scheduled). 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.

187B. Special Courses in Asian American Themes. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in selected Asian American themes, including issues in cultural formation, religion, education, social class, environmental degradation, and public policy. 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 prepa- ration 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. 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.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Limited to undergraduate course lecture. 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 course. Indi- vidual study with lecture course instructor to explore topics in greater depth through supplemental reading- es, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. 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 selected Asian American research meth- odologies 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, in- cluding issues in cultural formation, religion, educa- tion, social class, economic development, social movements, politics, and public policy. May be re- peated 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/senior. Variable topics in selected Asian American themes, including issues in cultural formation, religion, education, social class, economic development, social movements, politics, and public policy. 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 requisite: English Composition 3 or 3H. Variable specialized studies course in Asian American literature. Topics in Asian American literature, Topics in Asian American literature, Topics in Asian American literature, Topics in Asian American literature, Topics in Asian American literature.
Graduate Courses

200A. Critical Issues in Asian American Studies. (4) Seminar, three hours. Designed for graduate students. Examination and development of critical appreciation of research literature in Asian American studies and development of alternative interpretations of Asian American experience. Topics include Asian American history and economic/political and social/psychological issues. S/U or letter grading.

200B. Critical Issues in Asian American Communities. (4) Seminar, three hours. Designed for graduate students. Examination of traditional and contemporary theories and models of community for their appropriateness to understanding Asian Pacific American communities. Consideration of specific topics that explicate development, structure, and dynamics of Asian Pacific American communities in studying community issues and community building. S/U or letter grading.


200D. Asian American Literature and Culture. (4) Seminar, three hours. Examination of questions arising from Asian American literary and cultural criticism from mid-1980s to present. Focus on assumptions, possibilities, and limitations of certain theoretical perspectives and positions that have become important in Asian American critical practice. S/U or letter grading.

203. Asian American Research Methods. (4) Seminar, three hours. Introduction to empirical research methods, stressing uses and relevance in research with ethnic minority populations. Review of characteristics and logical processes of research and applicability of scientific and scholarly inquiry in advancing knowledge. S/U or letter grading.


215A-215B. Asian American Jurisprudence. (215A: 3 or 4/215B: 1 or 2) Lecture, three hours. Course 215A is enforced prerequisite to 215B. Designed for graduate students. Through judicial opinions, commentary, and historical readings, examination of how Asian American law has shaped demographics, experiences, and possibilities of Asian Americans and also 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 operate as methods of social control, order, and surveillance in Asian American communities. S/U or letter grading.


M239. Race, Ethnicity, and Culture as Concepts in Practice and Research. (4) (Same as Community Health Sciences M239.) Seminar, three hours. Integration of cross-cultural findings in healthcare with current American (U.S.) healthcare system paradigms to facilitate designing culturally based public health programs and train culturally competent practitioners. Letter grading.

C242A. Ethnocommunications I: Introduction to Creating Community Media. (4) Seminar, three hours. Strong verbal communication 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 in Asian American history and current issues related to diverse peoples, cultures, and communities. Viewing of films and interactive media for critique and discussion. Topics include field observation, composition, sound recording, interviewing techniques, editing, and writing treatments. Completion of community-based documentary required. Concurrently scheduled with course C142B. S/U or letter grading.


M260. Topics in Asian American Literature. (4) (Same as English M260A.) Seminar, three hours. Graduate seminar that examines and critically evaluates writings of Asian Americans. May be repeated for credit. S/U or letter grading.

M261. Theorizing Third World. (4) (Same as Comparative Literature M261.) Seminar, three hours. Investigation of politics of power, gender, and race in complex relationships between so-called First World and Third World, using both theoretical and textual approaches.


297B. Asian Migration to U.S. (4) Seminar, three hours. Emphasis on Asia as main regional source for international migrants. Topics include patterns and theories of international migration and their relevance to Asian experience, sending and receiving country perspectives, research and policy issues, S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, three hours. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. During teaching apprentice period, academic, and supervision of regular faculty member responsible for curriculum and instruction at UCLA. Unit credit may be applied toward full-time equivalency but not toward 11-course requirement for MA. May be repeated for credit. S/U grading.
ASIAN LANGUAGES AND CULTURES

College of Letters and Science

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Asian Languages and Cultures
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Department e-mail
Seiji M. Lippit, PhD, Chair

Faculty Roster

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Robert E. Buswell, Jr., PhD (Living and Jean Stone Professor)
George E. Dutton, PhD
Shoichi Iwasaki, PhD
Stephanie W. Jamison, PhD
Seiji M. Lippit, PhD
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Hongyi Tao, PhD

Professors Emeriti
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Hung-hsiang Chou, PhD
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Theodore D. Huters, PhD
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Yinghui Wu, PhD
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Senior Lecturer
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Lecturers
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Liancheng Chie, PhD
Jane B. Choi, PhD
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Asako H. Takakura, EdD
Juilana Wijaya, PhD
Yv-wen 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 ad-
vanced 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 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.

Refer 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 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.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

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 civilization course from 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.

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, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese, or one year of Sanskrit, and one introduction to Buddhism course or one introduction to Asian religions course.

Refer 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; six upper-division Asian religions courses within the department, including at least one course each concerning religions in China, Japan, Korea, and either South Asia or Southeast Asia; and two electives within the department.

Chinese BA

Learning Outcomes

The Chinese major has the following learning outcomes:

- Advanced ability to speak, read, and write modern Chinese
- Demonstrated competence in reading classical Chinese
- Broad knowledge of Chinese cultural, religious, and/or literary history from early periods to the modern era
- Demonstrated disciplinary familiarity in analysis of texts, objects, and historical trends
- Clear and effective writing on topics in Chinese civilization, in ways that draw upon the complex dynamics and cultural transformations across the history of China
- Formulation of research projects that engage critically and thoughtfully with primary and secondary materials

Preparation for the Major

Required: Chinese 6 or 6A or 10 or equivalent, and one course from 50, 660, 660W, 70, 70W, or Asian 30.

Transfer Students

Transfer applicants to the Chinese 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.

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 either modern Chinese (Chinese 100A and 100B and 100C or 100I, 101A, 101B, 102A, C107A, C120, 130A or 130B, 135) or from pre-modern Chinese (110A, 110B, 110C, 140A through 140D, 165)—at least two language courses must be in the pre-modern language or texts, (2) one literature course selected from 130A, 130B, 131, 135, 140A through 140D, C150A, C150B, 151, 152, or M133, (3) three elective courses on China selected from C138, 139, 154, 155, C156, CM160, 165, 174, C175, 176, 180, 184, 185, 186, 187, 191A, 191B, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department but outside China.

Japanese BA

Learning Outcomes

The Japanese major has the following learning outcomes:

- Demonstrated advanced written and oral knowledge of the Japanese language
- 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 6A 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.

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 Japanese 100A and 100B and 100C or 100S, 100R and 101C or 101S, 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 on Japan selected from CM172, C149, 154, 155, CM160, 165, 172, 175, 177, 180A, 180B, 180C, 181, 182, 183, 184A, 184B, 185, M186, 187, 191A, 191B, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department but outside Japan.

Korean BA

Learning Outcomes

The Korean major has the following learning outcomes:

- 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 secondary 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 on Korea selected from CM172, C149, 154, 155, CM160, 165, 172, 175, 177, 180A, 180B, 180C, 181, 182, 183, 184A, 184B, 185, M186, 187, 191A, 191B, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department but outside Korea.

Study Abroad

Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Honors Program

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 and, at the time of admission, must have
completed at least two upper-division courses in their major. For application forms and more information, contact the departmental undergraduate adviser.

Requirements

The honors program is a three-term sequence (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser. Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Asian 198A-198B-198C.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Asian 198A-198B-198C with a grade of A in each course.

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): Com-pletion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Jap-anese 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.

Required Upper-Division Courses (20 units): Three language courses in one Asian language offered by the department and two electives within 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, 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 (CPhil), 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. (8) (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 knowledge and comparison to other modern 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) (Formerly numbered 120.) Lecture, three hours; discussion, one hour. Comparative perspective 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 Religion M60A.) 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.

M60W. Introduction to Buddhism. (5) (Same as Religion M60W.) Lecture; three hours; discussion, one hour. Enforced prerequisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course M60. 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 Buddhism. Particular attention to problems involved in study of religion. Satisfies Writing II requirement. Letter grading.

M61. Introduction to Zen Buddhism. (5) (Same as Religion 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, and artistic and literary arts, society, and daily life. Letter grading.

70A-70B-70C. Popular Culture in East Asia. (5-5-5) Lecture, three hours; discussion, one hour. Popular culture in China, Japan, Korea, and Vietnam. Topics include popular religion, language, literature, arts, material culture, cinema, and music. Themes include identities, gender, sexuality, and class relations. Letter grading. 70A, 17th through 19th Centuries; 70B, 1895 to 1945; 70C, From 1945.

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.
100. Methods in Asian Linguistics. (4) Lecture, three hours; discussion. Research methodology for dealing with Asian languages, with emphases on bibliographical, data, and professional resources, issues in analyzing and presenting language examples, explaining language phenomena beyond what is observed, cross-linguistic comparisons, or report presentation, and writing reports in organized ways. P/NP or letter grading.


120FL. Readings in East Asian Languages. (2) Seminar, two hours. Prerequisites: Chinese 6 or 6A or 6C or Japanese 6 or Japanese 6 or 6A. Enforced corequisite: course 120. Additional work in major East Asian languages to enrich and augment work assigned in course 120, including reading, writing, and other exercises in Chinese, Japanese, and Korean. P/NP or letter grading.

121. Field Methods in Asian Languages and Cultures. (3) Lecture, three hours. Recommended prepa- ration: at least one year of one Asian language. Examination and applicability of field methods to better understand language and culture acquisition by working directly with native speaker of Asian language and/or through available materials. One language per term to be selected from languages spoken in Southeast Asia, South Asia, and East Asia. May be repeated for credit. P/NP or letter grading.

124CM. Teaching and Learning of Heritage Languages. (4) Same as Near Eastern Languages CM114 and Social CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLs) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLLLs, teaching and learning objectives, 3 approaches to the development of HLs, and the sociocultural profile of HLs, particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLLs; importance of HLs in motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLs and foreign language learners (FLs) regarding teaching methods and materials. Prerequisites: a course in sociolinguistics, and knowledge of HLs. Concurrently scheduled with course CM224. P/NP or letter grading.


135. Asian Foodways across Borders. (4) Lecture, two and one half hours. Examination of Asian foodways from 19th century to present, looking at how Asian and Western foods have impacted each other as they cross borders. Offers insight into how political, economic, and cultural forces of globalization manifest themselves in everyday life. Focus is on East Asian cuisines, but students are encouraged to incorporate additional learning on Southeast Asian cuisines. P/NP or letter grading.

151. Buddhist Literature in Translation. (4) Lecture, three hours. Recommended preparation: prior course on Buddhism or traditional Asian religions. Knowledge of Asian religions required. Examination and application of methodologies to better understand literature of Buddhist tradition of India and non-India, especially on key Buddhist themes and critical issues in cross-cultural interpretations of Asian religious texts. Letter grading.

152. 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.

153. Buddhism, Film, and Media. (4) Lecture, three hours; discussion (two hours scheduled). Recommended requisite: course M60 or Religion M60A or M60W or Religion M60W). Examination of issues related to Buddhism in globalizing world with focus on changing and divergent presentations of Buddhism in film, print, and new media. P/NP or 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.

162. Buddhist Meditation Traditions. (4) Lecture, three hours; discussion, one hour. Knowledge of Asian languages and cultures required. Introduction and practice of meditation in Buddhism, with emphasis on Thera- vada and Zen schools. Topics include various typol- ogies of meditation, symbiotic relationship between meditation and theory, and specific exercises by which doctrinal innovation prompts changes in meditative praxis. Letter grading.

163. Buddhism across Boundaries. (4) Lecture, two hours; discussion, one hour. Knowledge of Buddhist religious traditions required. Examination of topics regarding Buddhism in Asia. Topics vary, but may include death, gender, and state and religion. May be repeated for credit with topic change. Letter grading.

170. Approaches to Study of Religion. (4) Seminar, three hours. Investigation of many ways in which religion and religions may be studied, including anthropological, sociological, psychological, phenomenological, political, reductionist, and other ap- proaches. Readings of primary and secondary sources of methodological scholarship. Concurrently scheduled with course C270H. 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.

198C. Honors Research in Asian Languages and Cultures. (1) Seminar, three hours. Enforced requisite: course 198A or 198B or 198C or 199. Designed to bring together advanced undergraduate students under- taking individual supervised tutorial research in an in- dependent setting 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 or letter grading.

191A. Variable Topics Research Seminars: Life Writing in East Asia. (4) Seminar, three hours. Research seminar on selected topics. Readings of biograph- y and autobiography as elements of East Asian cultural traditions, with focus on literature from China, Japan, and Korea. Readings in English and relevant East Asian languages, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191B. Variable Topics Research Seminars: Bud- dish Studies. (4) Seminar, three hours. Limited to ju- niors/seniors. Research seminar on selected topics in Buddhist studies. Reading, discussion, and developement of culminating project. May be repeated for credit. Letter grading.

191H. Honors Research Seminars: Asian Lang- uages and Cultures. (4) Seminar, three hours. Limited to juniors/seniors. Field study and project focus on 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) Seminar, two hours. Limited to un- dergraduate students. Introduction to latest scholar- ship in field of Asian studies. Attendance at selected regularly presentations required. Discussion with faculty advisor to discuss presentations and pub- lished works of speakers. May be repeated for credit. P/NP or letter grading.

195. Community Internships in Asian Languages and Cultures. (1) Tutorial, one hour; fieldwork, eight hours. Limited to juniors/seniors. Internship in super- vised setting in community cultural or organizational setting. Students meet on regular basis with instructor and provide periodic journal reports of their experi- ence. 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.

196A–196B–196C. Honors Research in Asian Lan- guages and Cultures. (4–4–4) Tutorial, three hours. Limited to junior/senior departmental majors. May be repeated for credit. Individual contract required. Preparation: one undergraduate departmental sem- inar. Development of honors thesis under direct super- vision of faculty member. Letter grading. 196B. En- forced requisite: course 196A. Continuation of work initiated in course 196A. Presentation of research and relevant progress to supervising faculty member. In Progress grading (credit to be given only on comple- tion of course 196C). Letter grading. 196C. Completion of research developed in courses 196B. 196B. Presentation of honors project to super- vising faculty member. Letter grading.

199. Directed Research in Asian Languages and Cultures. (1 to 4) Tutorial, to be arranged. Recom- mended preparation: advanced reading knowledge of one Asian language. Limited to juniors/seniors. Super- vised individual research or investigation under guid-
Course Descriptions

200. Research Methods in East Asian Linguistics. (4) Seminar, three hours. Research methodologies for East Asian languages, with emphasis on compiling bibliographic data and using professional resources for research. Examination of issues in analyzing language examples, theoretical implications of linguistic data, and applications of functional linguistics in order to explain language phenomena. S/U or letter grading.

201. Provocative 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 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.


210. Seminar: Cultural and Comparative Studies. (4) Seminar, three hours. Selected topics in East Asian culture and history, with focus on China, Japan, and Korea. Preparation: background for credit with topic change. S/U or letter grading.


216. Seminar: History and Asia. (4) Seminar, three hours. Selections from students. Readings and discussion of major historiographical trends, with focus on how they have been applied to Asia. Topics include Marxist histories, Annales school and cultural history, modernity, race and 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 development of theory and methodology of material cultural studies in connection with 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 M222A-M222B. Seminar, three hours. Construction and exploitation of computerized language corpora for studying issues in areas such as lexicology, discourse grammar, language change and variation, language learning, 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) Same as Near Eastern Languages CM214 and Slavic CM214.) Lecture, three hours. Consideration of heritage language learners (HLs) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLLs; linguistic, demographic, sociolinguistic, and political definitions of HLs, particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLs; issues of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLs and foreign language learners (FLLLs) 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 CM124. S/U or letter grading.

230A-230B. Seminars: Theoretical Topics in East Asian Literature. (4-4) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. Concerns that are taught to become reading of literature from or about East Asia. Readings from both Western and Eastern theorists; issues of translation, comparison, and categorization. In Progress (230A) and letter (230B) grading.

240A-240B. Seminars: Topics in East Asian Literary History. (4-4) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. Critical issues common to literary historiography in East Asia, including periodization, canon, ideology, interaction between high and low culture, written and oral, etc. In Progress (240A) and letter (240B) grading.

242. Translation Workshop: East Asian Texts. (2) Seminar, two hours. Requisite: Chinese 200A or Japanese 200 or Korean 200. Translation, grammatical analysis, and discussion of selections from premodern texts that were critical status throughout East Asia. S/U grading.

245A-245B. Seminars: 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 archaizations of modernity, with readings largely from European sources. In-class debate probes relevance of these readings. Focus is on East 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 required. Theoretical concerns raised by works from Southeast Asia, one Southeast Asian nation, and/or Southeast Asian diaspora. Critical and historical examination of literary and/or film representations connected to practices of empire, nation, diaspora, and globalization. May be repeated for credit. S/U or letter grading.


265A-265B. Seminars: Selected Topics in Buddhist Studies. (4-4) Seminar, three hours. Coverage varies. May be repeated for credit. In Progress (265A) and letter (265B) grading.

C270. Approaches to Study of Religion. (4) Seminar, three hours. Investigation of many ways in which religion and religions may be studied, including anthropological, sociological, psychological, phenomenological, literary, and philosophical approaches. Readings of primary and secondary sources of modern scholarship. Concurrently scheduled with course C170. Letter grading.

290A-290B, 290C. Graduate Student Colloquium. (4) Research group meeting, three hours. Designed to provide graduate students in Asian studies with opportunity to present their research to other students and faculty members.

297. Life Writing in East Asia. (4) Seminar, three hours. Readings of biography and autobiography as elements of East Asian cultural traditions, with focus on differences between China, Japan, and Korea. Readings in English and relevant East Asian languages. Letter grading.

299. Independent Study. (2-10) 6 Tutorial, to be arranged. Designed for graduate students. Guided research and writing of research paper. May be repeated, but only 4 units 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.

405. Teaching Asian Languages at College Level. (4) Seminar, three hours. Preparation: appointment as teaching assistant in East Asian languages and cultures or South and Southeast Asian languages and cultures. Study in team-teaching, teaching methods, developing curricular materials and content. Participation in peer observations and workshops required. Students receive unit credit toward full-time equivalency but not toward any degree requirements. S/U grading.

496C. 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.

496E. 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.

496J. Computer Technologies for Teaching College-Level Japanese. (2) Lecture, two hours. Intended for current or potential teaching assistants in Japanese. 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.
Chinese

Lower-Division Courses

1. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed for students who wish to complete one-year foreign language requirement at accelerated pace. P/NP or letter grading.

2. Intermediate Modern Chinese. (5) Lecture, three hours; discussion, two hours. Requisite: course 1 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. Designed to strengthen communicative skills of listening, speaking, reading, and writing. Grammar rules, knowledge of idiomatic expressions, and both traditional and simplified characters. P/NP or letter grading.

3. Advanced Modern Chinese. (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. Designed for students who already have certain listening and speaking skills in Mandarin or other Chinese dialects at intermediate levels. Training in all four basic language skills (speaking, listening, reading, and writing). P/NP or letter grading.

4. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, two hours. Requisite: course 3A 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. Designed for students who already have certain listening and speaking skills in Mandarin or other Chinese dialects at elementary levels. Training in all four basic language skills—speaking, listening comprehension, reading, and writing. P/NP or letter grading.

5. Chinese Civilization. (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 5. P/NP or letter grading.


7. 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. First-year Chinese. 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. Training in all four basic language skills (speaking, listening, reading, and writing). P/NP or letter grading.

8. 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.


10. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Requisite: course 2A with grade of C or better or Chinese placement test. First-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.

11. Chinese Civilization. (5) Lecture, three hours; discussion, two hours. Not open to students with credit for course 50W. Knowledge of Chinese not required. Introduction to most important aspects of Chinese culture. Topics include early Chinese civilization, historical development of the Chinese language, Chinese culture, and Chinese history. P/NP or letter grading.

12. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Not open to students with credit for course 50W. Knowledge of Chinese not required. Introduction to most important aspects of Chinese culture. Topics include early Chinese civilization, historical development of the Chinese language, Chinese culture, and Chinese history. P/NP or letter grading.
gious practice over doctrine, and themes common to Buddhism, Daoism, and Confucianism. Satisfies Writing II requirement. Letter grading.

70. Classics of Chinese Literature. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 70W. Prior knowledge of Chinese culture, literature, or language not required. Introduction to pre-20th-century Chinese literary traditions, including selections from poetry, prose, fiction, and drama. P/NP or letter grading.

70W. Classics of Chinese Literature. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language. Not open for credit to students with credit for course 70W. Prior knowledge of Chinese culture, literature, or language not required. Introduction to pre-20th-century Chinese literary traditions, including selections from poetry, prose, fiction, and drama. P/NP or letter grading.

70R, 70W. Classics of Chinese Literature. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language. Not open for credit to students with credit for course 70W. Prior knowledge of Chinese culture, literature, or language not required. Introduction to pre-20th-century Chinese literary traditions, including selections from poetry, prose, fiction, and drama. P/NP or letter grading.

80. Chinese Cinema: Pictures, Prisms, Products, Projections. (5) Lecture, two hours; discussion, one hour; film viewing, three hours, Knowledge of Chinese not required. Introduction to history and major themes of Chinese cinema. Representative films studied in contexts of culture, society, politics, and economics, with reflections on changing meanings of both Chinese and cinema. May not be repeated for credit. P/NP or letter grading.

89HC. Honors Contracts. (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 contract noted on transcript. P/NP or letter grading.

100A-100B-100C. Advanced Modern Chinese. (4-4-4) Lecture, two hours; discussion, one hour; for course 101C: lecture, three hours; discussion, one hour. Requisite: course 101A, 101B: course 100C or 100F or 100I or Chinese placement test; for course 101C: 101B or Chinese placement test. Students who have already studied Chinese at an advanced level, with coverage in Chinese humanities and social sciences, science and technology, medicine, and applied linguistics. Concurrently scheduled with courses C207A-C207B. P/NP or letter grading.

109, 109A-109B. Readings in Modern Chinese Literatures. (4–4) Lecture, two hours; discussion, one hour. Required prerequisite: course 100F or Chinese placement test. Intended to improve reading and writing skills in specific academic and professional subject areas for students who have studied Chinese at an advanced level, with coverage in Chinese humanities and social sciences, science and technology, medicine, and applied linguistics. Concurrently scheduled with courses C207A-C207B. 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. Not open to native speakers. Designed to improve student language skills in service of business practice and ground language learning in authentic social cultural settings. Focus on oral and written business communication, cross-cultural communication, social etiquette in business conduct, Chinese economic and business climate, language of business and trade regulations, resources and environment, and business case studies. Letter grading.

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. Not open to native speakers. Designed to improve student language skills in service of business practice and ground language learning in authentic social cultural settings. Focus on oral and written business communication, cross-cultural communication, social etiquette in business conduct, Chinese economic and business climate, language of business and trade regulations, resources and environment, and business case studies. Letter grading.

103. Topics in Chinese Language and Culture. (4) Lecture, two hours; discussion, two hours. Recommended preparation: one to two years of college-level Chinese. Chinese language and culture for special purposes. Exploration of interdependent relation between Chinese language and culture. Introduction to basic concepts in sociocultural linguistics, discourse analysis, and technology to analyze Chinese language and cultural conventions expressed through verbal and nonverbal linguistic devices. P/NP or letter grading.

104. Academic/Professional Chinese. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100F or Chinese placement test. Topics from academic and professional subject areas for students who have studied Chinese at an advanced level, with coverage in Chinese humanities and social sciences, science and technology, medicine, and applied linguistics. Concurrently scheduled with courses C207A-C207B. P/NP or letter grading.

108FL. Special Studies: Readings in Chinese. (2) Seminar, two hours. Enforced requisite: course 100C or 100I or Chinese placement test. May be repeated for credit. P/NP or letter grading.

139. Gardens in China. (4) Lecture, three hours; discussion, one hour. Recommended preparation: course 50. Interdisciplinary survey of historic and literary gardens in China, with focus on English translations of works by native writers and recent Western scholarship. Letter grading.


C144. Translation Workshop: Modern Chinese Texts. (4) Lecture, three hours; discussion, one hour. Preparation: bilingual competency in Chinese and English. Workshop on English literary translation, designed to hone and improve translation skills. Focus on close readings and analysis of original texts against published English translations and actual textual counterparts. Workshops are designed to improve interpretation skills. Concurrently scheduled with course C244. P/NP or letter grading.

C150A. Lyrical Traditions. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Examination of poetic and critical traditions of early China, with emphasis on development of subjectivity and modes of address. Concurrently scheduled with course C250A. P/NP or letter grading.

C150B. Chinese Literature in Translation: Traditional Narrative and Fiction. (4) (Formerly numbered 150B.) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Examination of formation and development of Chinese narrative traditions from Tang to mid-Qing periods (7th–18th centuries). 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 society, gender and transgression, gender norms and transgression, violence and justice. May be taken independently for credit. Concurrently scheduled with course C250B. Letter grading.

151. Chinese Literature in Translation: Modern Literature. (4) Lecture, three hours; discussion, one hour. Requisite: 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.

152. Topics in Contemporary Chinese Literature and Culture. (4) Lecture, two hours; discussion, one hour. Knowledge of Chinese not required. Investigation of various topics in contemporary Chinese literature and culture, including politics and poetries of Chinese postmodernism, nationalism, feminism, mass culture, and media. 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 China, Hong Kong, Taiwan, and Chinese diaspora. Examination of aesthetics, genres, directors and stars. Other cultural and political questions may be considered. May be repeated for credit with topic change. P/NP or letter grading.

156. Variable Topics in Culture and Society in Taiwan. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Examination of relationship between culture (art, literature, film) and society in Taiwan. Reading, audio, and visual materials and development 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. Examination of various aspects of modern and contemporary popular culture in China, Taiwan, and Hong Kong from cultural studies perspective. Genres and media include literature, print culture, cinema, martial arts film and fiction, television, radio, pop music, visual arts, fashion, advertising, and cyberculture. P/NP or letter grading.

159. Variable Topics in Culture and Society in China. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese language not required. Examination of relationship between culture (art, literature, history, film) and society in China. Reading, audio, and visual materials and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.


165. Introduction to Chinese Buddhist Texts. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 100A or 110B or Japanese 110A or Korean 100A or Chinese placement test. Readings in premodern Buddhist texts written in literary Chinese and translated from English Indian, indigenous exegetical materials, Chinese apocryphal scriptures, and Confucian texts into Indo-European languages into Chinese; evolution of Chinese Buddhist terminology. Coverage varies. May be repeated for credit with consent of instructor. Letter grading.


C175. Introduction to Chinese Thought. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Survey of Chinese thought as represented in texts of Zhuo through early Han periods (circa 1000 to 100 BCE), with focus on invention of Confucian tradition (including Five Classics) and on defenses of that tradition against challenges from Mohists, Taoists, and other groups of thinkers. 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. Community-based study of Chinese thought as represented in texts of Zhuo through early Han periods (circa 1000 to 100 BCE), with focus on invention of Confucian tradition (including Five Classics) and on defenses of that tradition against challenges from Mohists, Taoists, and other groups of thinkers. Service learning component includes meaningful work with community partners, such as local schools, selected in advance by instructor. Letter grading.

176. Neo-Confucianism. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. 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) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Survey of corpus of traditional Chinese mythology, with emphasis preserved in variety of early texts, later evolutions in dramatic and fictional works, and evidence from visual arts. Letter grading.

181. Seminar of Early Global Trade and Piracy. (4) Lecture, three hours; discussion, one hour. Exploration of role of trade and piracy at threshold of globalization (13th to 17th century), with focus on continuity and transformation in Asia and Europe in response 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 Americas. As one of most important commodities on trans-Pacific voyage, close association of porcelain production and trade with international piracy in traditional historiography presents new angle for under-standing dynamics of early global trade and industries. Letter grading.

M183. Archaeological Landscapes of China. (4) (Same as Anthropology M116FR) Lecture, three hours; discussion, one hour (when scheduled). Dealing with various scales, from emer-gence of early cities to rise of metropolitan centers and formation of imperial landscapes. P/NP or letter grading.

184. Crime, Law, and Punishment in Traditional China. (4) Lecture, three hours; discussion, one hour. Preventing crime and administering justice are important parts of any society, but these are not straightforward or simple processes. What is crime? Are these crimes so terrible that they merit special kinds of punishment? How is punishment decided and by whom? What happens if justice is not carried out? Consideration of these questions as they apply to premodern Chinese legal systems from multiple perspectives: legal codes and casebooks, literary re-imagings of trials, depictions of postmortem punishment, and tales of supernatural intervention. Discussion of how legal and penal systems of China have been represented in West, Letter grading.

185. Food and Love in Chinese Culture. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Based on studies of cultural, historical, anthropological, and archaeological mate-rials, introduction to how Chinese have been engaging themselves in fields of food eating and love making. Letter grading.

186. Archaeology in China. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not re-quired. Early Chinese study of their own past, types of artifacts, beginnings of scientific archaeology, and surveys of major excavations of sites of all periods. Letter grading.

187. Chinese Etymology and Calligraphy. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 3, or consent of instructor. History and development of Chinese characters and (2) aesthetic training of calligraphic art and its appreciation, with focus on ways of recognizing and interpreting cursive style, common form of handwriting. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to students with grade of A in undergraduate course lecture. 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 and course instructor 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: Classical China. (4) Seminar, three hours. Designed for juniors/seniors. Research seminar on selected topics in classical China, thought, and culture. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191B. Variable Topics Research Seminars: 20th-Century China and Taiwan. (4) Seminar, three hours. Designed for juniors/seniors. Research seminar on selected topics in modern and contemporary literature and culture from China and Taiwan. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191C. Variable Topics Research Seminars: Semiotic China. (4) Seminar, three hours. Designed for juniors/seniors. Research seminar on selected topics in modern and contemporary literature and culture from China and Taiwan. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191D. Variable Topics Research Seminars: Premodern China. (4) Seminar, three hours. Designed for juniors/seniors. Research seminar on selected topics in modern and contemporary literature and culture from China and Taiwan. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191E. Variable Topics Research Seminars: Asian Languages and Cultures / 227

Gradient Courses

200A. Research Methods in Chinese. (4) Seminar, three hours. Requisite: course 110C. Lectures, discussions, and projects designed to develop basic skills in using traditional Chinese research materials. Topics include classical dictionaries; sinological indices; bibliographies; biographical, geographical, and geographical sources; encyclopedias; anthologies; rare editions; illustrated matter and calligraphy. Letter grading.

200B. Proseminar: Premodern Chinese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of premodern Chinese literature, with focus on research tools in field and on scholarship in English on major literary genres and themes. Letter grading.

200C. Proseminar: Modern Chinese Literature and Cinema. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in fields of modern Chinese literary and cinematic studies, with focus on theoretical tools, historical knowledge, and critical trends. Letter grading.


C207A-C207B. Academic/Professional Chinese. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 101B or Chinese placement test. Intended to improve reading and writing skills in specified areas of the subject. Credit granted to one student who has studied general Chinese at advanced level, with coverage in Chinese humanities and social sciences, science and technology, medicine, 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, written in Sinitic language and culture, and written in Chinese, and literature 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 literary Chinese. Topics rotate among major textual traditions and chronological periods. Emphasis on philological, critical, and historical approaches. May be repeated for credit with consent of instructor. In Progress (211A) and letter (211B) grading.

212. Topics in Chinese Poetry. (4) Readings/discussion, three hours. Selected readings from classical poetic 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 Cinemas. (4–4) Seminar, three hours; film-viewing laboratory, two hours. Advanced topics in Chinese-language cinemas. Examination of theory and methodology, historiography, industry and institutions, style and aesthetics, 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 cultural theory, investigating both challenges and limitations Western theory may pose for Chinese literary and cultural studies. Specific topics vary from year to year. In Progress (220A) and letter (220B) grading.


230A-230B. Seminars: Selected Topics in Modern Chinese Literature. (4–4) Seminar, three hours; discussion, one hour. Selected readings in 20th-century Chinese literature, emphasizing fiction. Discussion of individual research projects. May be repeated for credit. In Progress (230A) and letter (230B) grading.


240. Introduction to Chinese Linguistics. (4) Lecture, three hours; discussion, one hour. Recommended preparation: one to two years of college-level Chinese. Introduction to Chinese sound system, writing system, major grammatical structures, language in society and in cultural practices. Concurrently scheduled with course C120. Letter grading.

241A-241B. Heaven, Earth, and Monarchy in Ancient 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, education, government, and moral court, with discussion of topics in recent cultural semiology and anthropology. In Progress (241A) and letter (241B) grading.

242A-242B. Chinese Classics and Exegetical Traditions. (4–4) Seminar, three hours. Recommended preparation: command of literary Chinese. Reading and discussions of selections from one traditional Chinese classic (Curtician Five Classics, others), with introduction to exegetical history, secondary scholarship, and research methodology. Topics vary from year to year. May be repeated for credit. In Progress (242A) and letter (242B) grading.


244. Translation Workshop: Modern Chinese Texts. (4) Lecture, three hours; discussion, one hour. Preparation: bilingual competency in Chinese and English. Workshop on Chinese-English literary translation, designed to hone and improve translation skills. Focus on close readings of original texts against published English translations and actual translation work. May include interpretation segment, designed to improve interpretation skills. Concurrently scheduled with course letter grading.

245A-245B. Seminars: Traditional Chinese Narrative and Drama. (4–4) Seminar, three hours. Preparation: reading knowledge of colloquial and literary Chinese. Seminar topics alternate yearly between traditional narrative and drama, with emphasis on different narrative conventions and their cultural assumptions and interactions. May be repeated for credit. Concurrently scheduled with course letter grading.

250A. Lyric Traditions. (4) Lecture, three hours; discussion, one hour. Readings of poetic and critical writings of traditional China, with emphasis on development of subjectivity and modes of address. Concurrently scheduled with course C150A. Graduate students required to read primary materials in original Chinese. S/U or letter grading.

250B. Chinese Literature in Translation: Traditionnal Narrative and Fiction. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Examination of Chinese narrative traditions from Tang to mid-Qing periods (7th–18th centuries). Readings from biographical writings, fiction, drama, legal cases, etc., with emphasis on different narrative conventions and their cultural assumptions and interactions. 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 scheduled with course C150B. Letter grading.

251A-251B. Chinese Literary Criticism. (4–4) Seminar, three hours. Issues in production and interpretation of literary works, as formulated by Chinese critics from classical age onward. Letter grading.

252A. Chinese Literary Criticism. (4–4) Seminar, three hours. Issues in production and interpretation of literary works, as formulated by Chinese critics from classical age onward. Letter grading.

257. Variable Topics in Culture and Society in Taiwan. (4) Lecture, three hours. Discussion, one hour. Designed for graduate students. Knowledge of Chinese not required. Examination of relationship between culture (art, literature, film) and society in Taiwan. Reading, audiovisual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C156. Letter grading.

265A-265B. Seminars: Chinese Buddhist Texts. (4–4) Lecture, three hours. May be repeated for credit with consent of instructor. In Progress (265A) and letter (265B) grading.

C275. Introduction to Chinese Thought. (4) Lecture, three hours. Discussion, one hour. Knowledge of Chinese not required. Survey of Chinese thought as represented in texts of Zhou through early Han periods (circa 1000 to 100 BCE), with focus on invention of Confucian tradition (including Five Classics) and on defenses of social tradition against challenges from Mohists, Taoists, and other groups of thinkers. Concurrency required with course C175. Letter grading.


290A-290B. Seminars: Selected Topics in Chinese Archaeology. (4–4) Seminar, three hours. Requisite: course 186. Discussion and research on major problems about Chinese archaeology and different interpretations of important archaeological finds, with emphasis on studies of Xia and Shang cultures and Xia and Shang dynasties. May be repeated for credit. In Progress (290A) and letter (290B) grading.

291. Archaeological Process in China. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of Chinese archaeology to provide deeper understanding of formulation of conceptual categories of archaeologists. Illustrations of early China used to make sense of past through interpretation of material culture. S/U or letter grading.

295A-295B. Seminars: Selected Topics in Chinese Cultural History. (4–4) Seminar, three hours. Discussion and research on major problems related to Chinese culture, such as beginnings of Chinese civilization and Chinese dynastic history. Other topics include cultural developments of ancient and medieval China. May be repeated for credit. In Progress (295A) and letter (295B) grading.

297A. Seminar: Research Topics in Premodern Chinese. (4) Seminar, three hours. Selected topics in premodern Chinese literature, history, or religion, with emphasis on current intellectual importance and independent research. S/U or letter grading.

297B. Seminar: Research Topics in Modern Chinese and Sinophone Culture. (4) Seminar, three hours. Selected topics in modern Chinese and Sinophone culture, with major emphasis on independent research. S/U or letter grading.

Filipino

Lower-Division Courses

1. Introductory Filipino. (5) Lecture, two hours; discussion, three hours. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Introductory Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3R. Introductory Filipino Reading and Writing. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Filipino. Training in reading and writing skills at elementary level, equivalent to completion of one year of Filipino. P/NP or letter grading.

4. Intermediate Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Filipino/Tagalog 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 Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Filipino/Tagalog 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 Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Filipino/Tagalog 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 Filipino: Intensive, (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1, 2, and 3. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. Offered in summer only on 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.

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 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 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. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. May be repeated for credit. In Progress (189HC) and letter (189HC) 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 honors credit for eligible students. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

130A. Filipino Short Story. (4) Lecture, three hours. Enforced requisite: course 6 or Filipino/Tagalog placement test. General background knowledge on how Filipino writers view themselves and society, historically and diachronically. Sample of short stories written in Filipino/Tagalog language with some written in English for purposes of contrasting rhetoric, themes, and sensibilities. P/NP or letter grading.


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/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 faculty mentor. 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 repeated for honors credit for eligible students. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

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/NP 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/NP 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/NP 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/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance and deep understanding of formulation of conceptual categories of Hindi-Urdu literature, history, and sociopolitical issues as represented in Hindi-Urdu films and/or literature. May be repeated once for credit. P/NP or letter grading.

88. 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 faculty mentor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

90. Advanced Tutorial Instruction in Hindi-Urdu. (3) Tutorial, two hours. Enforced requisite: course 6 or Hindi-Urdu placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Hindi-Urdu. May be repeated for credit. P/NP or letter grading.
Upper-Division Courses

100A-100B-100C. Intermediate Hindi-Urdu. (4-4-4)
(Formerly numbered 4, 5, 6) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Hindi-Urdu to qualify for more advanced courses. Introduction to modern Hindi-Urdu with attention to conversational skills, grammar, and writing forms. Not open to students who have learned, from whatever source, enough Hindi-Urdu to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

(2) Tutorial, two hours. Requisite: course 6 or Hindi-Urdu placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Hindi-Urdu. May be repeated for credit. 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 students. 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 upper-division lecture course. In-depth study 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.

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.

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/NP or letter grading.

5. 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/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.

100A-100B-100C. Advanced Indonesian. (4-4-4)
Lecture, three hours. Requisite: course 100A with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Preparation for more advanced study of specialized academic subjects, including but not limited to social sciences and humanities. Students read authentic materials in Indonesian concerning various issues. P/NP or letter grading.

(2) Tutorial, two hours. Requisite: course 6 or Indonesian placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Indonesian. May be repeated for credit. 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.

190. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. In-depth study 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.

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.

12A. Elementary Modern Japanese.
(2) Lecture, two hours; discussion, two hours. Requisite: course 1A or Japanese placement test. 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 writing forms for those with some Kanji knowledge. Conversation drill based on material covered in class. P/NP or letter grading.

12B. Elementary Modern Japanese.
(5) Lecture, two hours; discussion, three hours. Requisite: course 1B or Japanese placement test. 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 writing forms for those with some Kanji knowledge. Conversation drill based on material covered in class. P/NP or letter grading.

(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 writing forms for those with some Kanji knowledge. Conversation drill based on material covered in class. P/NP or letter grading.

(5) Lecture, two hours; discussion, three hours. Requisite: course 1B or Japanese placement test. 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 writing forms for those with some Kanji knowledge. Conversation drill based on material covered in class. P/NP or letter grading.

(5) Lecture, two hours; discussion, two hours. Requisite: course 2A or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

(5) Lecture, two hours; discussion, two hours. Requisite: course 2B or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

(5) Lecture, two hours; discussion, two hours. Requisite: course 3 or 8 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. Continuation of course 1. P/NP or letter grading.

(5) Lecture, two hours; discussion, two hours. Requisite: course 3 or 8 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. Continuation of course 1. P/NP or letter grading.

8. Elementary Japanese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 5. 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.
99. Student Research Programs. (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 course. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A-100B-100C. Advanced Modern Japanese, (4–4–4) Lecture, three hours; discussion, two hours. Required: course 6 or 10 with grade of C or better or Japanese placement test. Course 100A with grade of C or better or 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 audiotapes. 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. Required: course 6 or 10 with grade of C or better or Japanese placement test. Not open to students with credit for course 100A or who have learned, from whatever source, enough Japanese to qualify for more advanced courses. May be taken concurrently with course 100A. Development of overall competency in reading advanced-level Japanese materials. Instruction in understanding grammar and practical expressions, as well as expansion of kanji and vocabulary to achieve higher ability in comprehension of written materials in Japanese. Translations from Japanese to English, as well as from English to Japanese. P/NP or letter grading.

100S. Advanced Modern Japanese: Intensive, (12) Lecture, 10 hours; discussion, 10 hours. Required: 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 sociocultural issues of contemporary Japanese society. Materials selected from contemporary publications, videos, and audiotapes. Reading with focus on linguistics 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. Required: course 100C or 100S with grade of C or better or Japanese placement test. Development of ability in kanji recognition and writing. 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. Also suitable for heritage Japanese learners who need to acquire enough kanji for successful entrance into the 105B course. May be taken after completion of course 101B or 101C, but not after completion of course 105A or 105B. P/NP or letter grading.

101B-101C. Fourth-Year Japanese: Advanced Reading I, II, (4–4) Lecture, three hours; discussion, one hour. Required: 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 Japan. 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. Required: 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 Japan. 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: Advanced Literary Criticism, I, II, III, (4–4–4) Lecture, three hours; discussion, one hour. Required: course 100C or 100S with grade of C or better or Japanese placement test. Designed to improve skills in Japanese in context of advanced-level business transactions. To be successful business person, one must be equipped with advanced specialized oral and written communication skills as well as high degree of cultural understanding. Offered written business and professional etiquette in business conduct, Japanese economic and business climate, business law and regulations, resources and environment, and business case studies. P/NP or letter grading.

105A-105B. Advanced Reading and Writing for Japanese-Heritage Speakers, (4–4) Formerly numbered 102A-102B, Lecture, three hours; discussion, one hour. Required: Japanese 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 or nonheritage learners who are fluent in daily spoken Japanese. Emphasis on building vocabulary knowledge of kanji, 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. Required: course 100C or 100S with grade of C or better or Japanese placement test. Students must be concurrently enrolled in affiliated 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) Lecture, three hours. Required: course 100A or 100S with grade of C or better or Japanese placement test. Tutorial and guided independent study to help students develop advanced proficiency in oral and written Japanese. May be repeated for credit. P/NP or letter grading.

110A. Introduction to Classical Japanese: Basic Grammar, (4) Lecture, three hours; discussion, one hour. Required: course 100C or 100S with grade of C or better or Japanese placement test. Introduction to the essentials 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. Required: course 110A. Grammar and readings of selected premodern texts. P/NP or letter grading.

C112. Japanese Urban History and Culture, (4) Lecture, three hours. Required: course 100C or 100S with grade of C or better or Japanese placement test. Concurrently scheduled with course C212. Research Center. May be repeated. P/NP or letter grading.

M120. Introduction to Japanese Linguistics, (4) Same as Linguistics M116, Lecture, three hours; discussion, one hour. Required: course 3 or 8 or Japanese placement test. Introduction to Japanese
grammatic 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, linguistic analysis, and development of culminating project. Letter grading.


130A-130B-130C. Readings in Modern Japanese Literature. (4-4-4) Seminar, three hours. Enforced requisite: course 100C or 1005 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. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D, Knowledge of Japanese not required. Survey of Japanese literature from 16th century to post-World War II. P/NP or letter grading.


155. Topics in Japanese Cinema. (4) Lecture, three hours; discussion, one hour; film viewing, two hours. Knowledge of Japanese required. Critical analysis of selected topics on introduction to major bibliographic and methodological resources in field of Japanese studies. May be repeated for credit. Letter grading.


159. Variable Topics in Culture and Society in Japan. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Exploration 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.


165. Introduction to Japanese Buddhist Texts. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 110A or Chinese 165 or Japanese placement test. Readings in premodern Buddhist texts written by Japanese in Sino-Japanese or Japanese. Selection of texts designed to introduce students to topics concerning textual commentaries, doctrinal treatises, hagiographies, temple histories, etc. Coverage varies. May be repeated for credit with consent of instructor. Letter grading.


171. Topics in Japanese Studies. (4) Lecture, three hours. Enforced requisite: course 100C or Japanese placement test. Advanced course that explores Japanese culture through in-depth reading of Japanese-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, language, and society. Concurrently scheduled with course C271. P/NP or letter grading.

172. Fiction and Plays of Floating World. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 50. Examination of broad selection of popular fiction and theater from late 17th to early 19th century, with focus on theme of floating world (ayakashi) of entertainment, including pleasure quarters, theater district, and realm of fiction. Letter grading.


182. Japanese Folklore. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Lectures/discussions on native religious rituals (festivals) and observances of Japanese, with special emphasis on artistic behavior. Discussion of Shinto, Shinto/Buddhist syncretism, and other non-Buddhist belief systems. Concurrently scheduled with course C282. Letter grading.


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C224A-C224B. 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.

C226. 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.

CM227. Contrastive Analysis of Japanese and Korean. (4) (Same as Korean CM227.) Lecture, three hours; discussion, one hour. Recommended preparation: two years of Japanese and knowledge of Hangul, or two years of Korean and knowledge of Hiragana. Prior linguistic background also recommended. Critical reading and discussion of selected current research papers in syntax, pragmatics, discourse, and sociolinguistics from perspective of contrastive study of Japanese and Korean, concurrently scheduled with course CM127. Letter grading.

C228. 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 Japanese placement test. Reading of texts in original Japanese, with focus on late Taisho and early Showa periods. Various ways that nation (miraku) was discussed in intellectual discourses of this period, particularly in relation to politics of imperialism. Concurrently scheduled with course C131. Letter grading.

C235A-C235B. 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.

C240A-C240B. Seminars: Selected Topics in Japanese Literature. (4–4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (240A) and letter (240B) grading.

C241A-C241B. Seminars: Japanese Classics. (4–4) Seminar, three hours. Prose and poetry from early times to late Taisho, and also premodern spoken and written Japanese. May be repeated for credit with consent of instructor. In Progress (241A) and letter (241B) grading.


C245A-C245B. Seminars: Medieval Japanese Literature. (4–4) Seminar, three hours. Preparation: one year of classical Japanese. Selected readings in travel poetry, travel diaries, and other genres of Japanese travel literature of Heian, Kamakura, Nambokucho, and Muramachi periods. May be repeated for credit with consent of instructor. In Progress (245A) and letter (245B) grading.

Korean Lower-Division Courses

1. Elementary Modern Korean. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Introduction to standard spoken Korean and Korean writing, with emphasis on 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. Continuation of course 1. P/NP or letter grading.

3. Intermediate Modern Korean. (5) Lecture, two hours; discussion, two hours (when scheduled). Enforced requisite: course 2 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. Continuation of course 2. P/NP or letter grading.

4. Intermediate Modern Korean. (5) Lecture, three hours; discussion, two hours. Requisite: course 3 or 4 with grade of C or better. Corequisite: course 2A 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. Continuation of course 3. P/NP or letter grading.

5. Intermediate Modern Korean. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 4 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. Continuation of course 4. P/NP or letter grading.

6. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 5A with grade of C or better or Korean placement test. Not open to students who attended elementary school in Korea for more than one year or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.

7. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 5A with grade of C or better or Korean placement test. Not open to students who attended elementary school in Korea for more than one year or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.
from whatever source, enough Korean to qualify for more advanced courses. Designed for Korean-heritage learners. Emphasis on four skills (spelling, grammar, readings, and conversation in modern Korean). P/N or letter grading.

6. Intermediate Modern Korean. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 5 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. Continuation of course 5. P/N or letter grading.

6A. Intermediate Korean for Korean Speakers. (5) Lecture, five hours. Enforced requisite: course 5A with grade of C or better or Korean placement test. Not open to students who attended elementary school in Korea for more than one year or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 5A. Enforced requisite, on speaking, listening comprehension, reading, and writing. Offered in summer only. P/N or letter grading.

10. History of Korean Civilization. (5) Lecture, three hours; discussion, 10 hours. Recommended preparation: courses 1, 2, or 4. History of Korean civilization, focusing on political and social developments in premodern and modern Korea. Offered in summer only. 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 the world from different ideological, social, and cultural perspectives.

20. Introduction to Korean Cinema. (5) Lecture, three hours; discussion, one hour. History of Korean cinema from beginning of 20th century into present. P/N or letter grading.

29. 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, and 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.

89H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course for 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 advanced standing 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/N or letter grading.

Upper-Division Courses

100A-100B-100C. Advanced Modern Korean. (4–4–4) Lecture, three hours; discussion, two hours. Enforced requisite: course 6, 6A, or 10 with grade of C or better or Korean placement test. Course 100A with grade of C or better or Korean placement test is enforced requisite to 100B; course 100B with grade of C or better or Korean placement test is enforced requisite to 100C. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of courses 6/6A. Readings of modern prose and poetry, with emphasis on grammar and Sino-Korean. P/N (undergraduates), S/U (graduates), or letter grading.

101-101B-101C. Advanced Readings in Modern Korean. (4–4–4) Lecture, three hours; discussion, two hours. Enforced requisite: course 100C or Korean placement test. Course 101B or Korean placement test is enforced requisite to 101C; course 101B or Korean placement test is enforced requisite to 101C. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Development on professional level. Development of both vocabulary and Sino-Korean. P/N or letter grading.

102A-102B-102C. Advanced Korean Conversation. (4–4–4) Lecture, three hours. 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. Designed to improve spoken proficiency. Each course may be taken independently for credit. P/N or letter grading.

103A-103B-103C. Readings in Sino-Korean Characters. (4–4–4) Lecture, three hours. Requisite: course 100C or Korean placement test. Course 103A or Korean placement test is requisite to 103B; course 103B or Korean placement test is requisite to 103C. Sino-Korean vocabulary and characters necessary for advanced and superior level of knowledge in Korean. Sino-Korean characters are used differently from same Chinese characters used in contemporary Chinese. Study of pronunciation, meaning, and word formation. Professional-level Korean speakers need to be able to read at least 1,800 Sino-Korean characters. Reinforcement of collocation patterns and sentence structures. Sino-Korean vocabulary. P/N 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. Development of prose style. Readings include representative examples of diverse genres selected from magazines, journals, and books. Each course may be taken independently for credit. P/N (undergraduates), S/U (graduates), or letter grading.

C105A-C105B-C105C. 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 society. Each course may be taken independently for credit. Concurrently scheduled with courses C205A-C205B-C205C. P/N 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. Opportunity for students to communicate in Korean in authentic contexts while providing useful service to community. P/N or letter grading.

107A-107B-107C. Professional/Academic Korean. (4–4–4) Lecture, three hours. Requisite: course 101C or Korean placement test. Course 107A or Korean placement test is requisite to 107B. Course 107B or Korean placement test is requisite to 107C. May not be taken concurrently with course 102A, 102B, or 102C. Development of professional and academic proficiency in oral and written Korean to understand modern linguistic and cultural contexts 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 specialization areas. Special attention to vocabulary development on professional level. Development of both interactive and noninteractive listening. Research projects assigned according to student interests. P/N or letter grading.

107S. Professional/Academic Korean and Community-Based Learning. (4) Lecture, three hours; fieldwork, two hours. Requisite: course 101C or Korean placement test. May not be taken concurrently with course 102A, 102B, 102C, 106A, 106S, or 107A. Development of professional and academic proficiency in oral and written Korean to understand many social, linguistic, and cultural contexts and to communicate in Korean at advanced level to interact with professional topics, whether those topics are familiar or not. Opportunity for students to communicate in Korean in authentic contexts while providing useful service to community. P/N or letter grading.

108FL. Special Studies: Readings in Korean. (2) Seminar, two hours. Enforced requisite: course 100C or Korean placement test. Must be concurrently enrolled in course 108FL. Additional work in Korean to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/N or letter grading.
109. Advanced Tutorial Instruction in Korean. (2) Tutorial; two hours. Requisite: course 100C or Korean placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Korean. May be repeated for credit with consent of 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 morphological, syntactic, pragmatic characteristics of Korean in light of linguistic universals, with brief introduction to formation, typological features, and phonological structure of Korean. Concurrently scheduled with course C220. Letter grading.

124. 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, discourse analysis, and multimedia resources 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, graphic novels, popular music, popular song, course, 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.

148A. Reading Modern Korean Academic Texts. (4) Seminar; three hours. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Korean not required. Seminar to develop reading skills for students who have studied Korean to advanced level, and enhance their understanding of Korean culture. Selections from Korean academic texts (book chapters, journal articles, reviews, and primary sources) on various issues of modern Korean literature, history, philosophy, religions, economy, and politics. P/NP or letter grading.


C151. Korean Literature in Translation: Modern. (4) Lecture; three hours; discussion; one hour. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Korean not required. Survey of premodern and contemporary Korean literature. Concurrently scheduled with course C251. 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. Requisite: 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.


CM160. Korean Buddhism. (4) (Same as Religion M161.) Lecture; three hours; discussion; one hour. Knowledge of Korean not required. Introduction and development of Buddhism in Korea, interactions between indigenous Korean culture and Sinic traditions of Buddhism, Korean syntheses of imported Buddhist theological systems and meditative techniques, and independent Son (Zen) schools of Korea. Concurrently scheduled with course C260. 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 premodern Korean Buddhist texts written in Sino-Korean and taken from important historical, philosophical, and spiritual writings. Knowledge of Korean not required. 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.

174. Korean History. (4) Lecture, one hour; discussion, one hour. Knowledge of Korean not required. Survey of Korean thought from earliest records to 19th century, including shamanism, Taoism, Buddhism, Christianity, and neo-Confucianism. Korean traditions and those found in China, Japan, Korea, and West. P/NP or 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 records to 19th century, including shamanism, Taoism, Buddhism, Christianity, and neo-Confucianism. Korean traditions and those found in China, Japan, Korea, and West. P/NP or letter grading.

176. Introduction to Korean Confucianism. (4) Lecture; three hours. Enforced requisites: course 100C or Chinese 110C or Korean placement test. Reading in premodern Koryo and Choson texts on politics, society, and culture. Coverage varies. Texts may be read either in 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. Requisite: course 101A or One course from Comparative Literature 1A, 1B, 1C, 1D. 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) Seminar, three hours. Comparative survey of intertwined parallel histories of Korea and Vietnam, organized chronologically, but structured around key themes that serve as a basis for comparison. Modern experiences of colonized Vietnam and Korea 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 anticommunist regimes in south. Each also experienced warfare after division and direct involvement of U.S. during epochs of cold war between 1950s and 1970s. P/NP or letter grading.

187. Popular and Folk Religion in Korea. (4) Lecture; three hours; discussion; one hour. Knowledge of Korean not required. Introduction to history, forms, and scholarship concerning folk religion in Korea. Exploration of forms of popular and folk religion in Korea, including shamanism, ancestor worship, and contemporary religions. Consideration of fortune-telling, geomancy, and spirit belief. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

182. 1994 Kobe Reform: History at Crossroads of Civilizations. (4) Seminar; three hours. Knowledge of Korean not required. Examination of modernizing reforms adopted in Korea in 1994. Consideration of conflict among radical Westernizers who had studied in Japan and U.S., modern reformers who followed Chinese model of adopting Western technology to defend Confucian order, and orthodox Confucians who strongly opposed any changes. Focus on historical and intellectual background in first half, with debates among students who assume roles in Deliberative Council that was responsible for designing reforms in second half. Letter grading.

183. Korean Folklore. (4) (4) Lecture; three hours; discussion; one hour. Survey of Korean folklore and its perspectives and methods—oral literature, performing folk arts, social folk custom, and material culture. P/NP or letter grading.

184A. Women in History: Premodern Korea. (4) Lecture; three hours; discussion; one hour. Knowledge of Korean not required. Examination of premodern Korean history from perspective of women. Consideration of how gender roles and identities were socially (re)constructed over time, with focus on continual negotiation by women and men within larger processes of political, social, and cultural changes such as for transition to Korean civil society and rise of aristocratic social order, and propagation of Confucian social values. Letter grading.

184B. Women in History: Modern Korea. (4) Lecture; three hours; discussion; one hour. Knowledge of Korean not required. Examined Korean women's history from perspective of women since mid-19th century. Consideration of how gender roles and identities were socially (re)constructed over time, with focus on continual negotiation by women and men within larger processes of political, social, and cultural transformations. Discussion of issues such as changes in women's education, employment, social/legal status, especially in context of colonialism, war, democratization, and economic development. P/NP or letter grading.

185. Education and Society in Korea. (4) Lecture, three hours; discussion; one hour. Knowledge of Korean not required. Consideration of educational process as a basis for comparison. Modern experiences of colonized Vietnam and Korea 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 anticommunist regimes in south. Each also experienced warfare after division and direct involvement of U.S. during epochs of cold war between 1950s and 1970s. P/NP or letter grading.

M186. Korea and Vietnam: Comparative Modern Societies. (4) (Same as Vietnamese M186) Seminar; three hours. Comparative survey of intertwined parallel histories of Korea and Vietnam, organized chronologically, but structured around key themes that serve as a basis for comparison. Modern experiences of colonized Vietnam and Korea 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 anticommunist regimes in south. Each also experienced warfare after division and direct involvement of U.S. during epochs of cold war between 1950s and 1970s. P/NP or letter grading.

188. Advanced Honors Seminars. (1) Seminar; three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture courses to give in-depth 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.
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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.

191A. Variable Topics Research Seminars: Premodern or Early Modern Korean History. (4) Seminar, three hours. Research seminar on selected topics of interpretation in Korean history from earliest times through 1910. Coverage varies. Seminar topic to term and includes such topics as state formation, international relations, or sprouts of capitalism. 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 or specialized 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 110C. Review of basic Western and modern Korean reference books, with concentration on Korean literature and language, and survey of basic bibliographical material. In addition, introduction to most important primary 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.

220A-220B. Reading Korean Academic Texts. (3-4) 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 of 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.

225C. Reading Korean Academic Texts. (4) Lecture, three hours. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage of Korean of materials on Korean history, culture, and society. May be taken independently for credit. Concurrently scheduled with course C105A-C105B. S/U or letter grading.

226A-226B. Seminars: Selected Topics in Korean Linguistics. (4) Seminar, three hours. Critical reading of seminal papers on research topics in Korean functional linguistics (grammaticalization, discourse, pragmatics, sociolinguistics, syntax, morphology) and pedagogy. In Progress (226A) and letter (226B) grading.


231. 19th-Century Korea. (4) Seminar, three hours; discussion, one hour. Requisite: course 180B or 180C. Proseman 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.

235. Korean Literary History. (4) Lecture, three hours. Designed for graduate students. Critical history of development of traditional Korean literature, with emphasis on modernity, literary systems; hierarchy of genres, rise of literary kinds and forms, periodization, and critical issues in literary history. One particular area of focus to be nationalist canon that governs literary studies in Korea and West. Letter grading.

236. Korean Cultural History. (4) Lecture, three hours. Discussion, two hours. Requisite: course 200 or one year of Korean and some knowledge of linguistics. Discussion of major synthetic, semantic, and pragmatic characteristics of Korea in light of linguistic universals, with brief introduction to formation, typological features, and phonological structure of Korean. Concurrently scheduled with course CM120. Letter grading.

242A-242B. Seminar: Topics in Korean Linguistics. (4) Seminar, three hours. Critical reading of seminal papers on research topics in Korean functional linguistics (grammaticalization, discourse, pragmatics, sociolinguistics, syntax, morphology) and pedagogy. In Progress (224A) and letter (224B) grading.

242C. Structure of Korean. (4) Lecture, three hours; discussion, two hours. Requisite: course 200 or one year of Korean and some knowledge of linguistics. Discussion of major synthetic, semantic, and pragmatic characteristics of Korea in light of linguistic universals, with brief introduction to formation, typological features, and phonological structure of Korean. Concurrently scheduled with course CM120. Letter grading.

242A-242B. Seminar: Topics in Korean Linguistics. (4) Seminar, three hours. Critical reading of seminal papers on research topics in Korean functional linguistics (grammaticalization, discourse, pragmatics, sociolinguistics, syntax, morphology) and pedagogy. In Progress (224A) and letter (224B) grading.

245. Korean Literary History. (4) Lecture, three hours. Designed for graduate students. Critical history of development of traditional Korean literature, with emphasis on modernity, literary systems; hierarchy of genres, rise of literary kinds and forms, periodization, and critical issues in literary history. One particular area of focus to be nationalist canon that governs literary studies in Korea and West. Letter grading.


274. Seminar: Readings in Korean Christianity. (4) Seminar, three hours. Reading of recent secondary sources of Christianity in Korea, covering doctoral dissertations, journal articles, books, and books in English and Korean to help graduate students understand recent scholarship on diverse topics in Korean Christianity. Letter grading.

254A-254B. Seminars: Topics in Traditional Korean Cultural History. (4) Seminar, three hours. Preparation: reading knowledge of Korean or literary Chinese. Discussion and research on major topics in Korean cultural history, such as Confucianization of Korean society, practical Learning through Confucianism, class and social mobility, the Choson dynasty, or Korean reactions to West in Eastern learning and enlightenment movements of 19th century. May be repeated for credit. In Progress (254A) and letter (254B) grading.

296A-296B. Seminars: Topics in Modern Korean Cultural History. (4) Seminar, three hours. Preparation: reading knowledge of Korean. Designed for graduate students. Graduate research seminar on selected topics in modern Korean history. In Progress (296A) and letter (296B) grading.
South 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 religions of classical India—Vedic, Brahmanical, Hindu, Jain, and Buddhist—paying equal attention to change and continuity, with emphasis on chronological development. P/NP or 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.

175. Introduction to Indic 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. Examination of position and function of women 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 these ideals, especially in narrative literature. P/NP or letter grading.

189. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Honors seminar. Preparation: knowledge of Sanskrit or Pali. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Preparation: knowledge of Sanskrit or Pali. 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 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 credit units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP 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. Requisite: course 110C. Exploration of reading and study of such texts as best serve students' needs. May be repeated for credit with consent of instructor. P/NP (undergraduates), S/U (graduates), or letter grading.

150. Classical Indian Literature in Translation. (4) Lecture, three hours. Knowledge of Asin languages not required. Survey of some landmarks of classical Indian literature from second millennium BCE into second millennium CE, including both poetry and prose, highlighting popular genres, Sanskrit and secular and religious texts, examined in their social and institutional contexts. P/NP or letter grading.

155. Topics in South Asian Cinema and Literature. (4) Lecture, three hours. Knowledge of Sanskrit or Pali 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 on archaeological, art historical, and epigraphical sources. Examination of both formal doctrine and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Concurrently scheduled with course CM260. Letter grading.

Graduate Courses
M222A-M222B. Vedic. (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 Vedic dialect and readings in Rig-Vedic hymns. Only course M222B may be repeated for credit. S/U or letter grading.

230. Selected Readings in Sanskrit Texts. (4) Lecture, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.


243. Translation Workshop: Premodern Sanskrit, Pali, and/or Prakrit Texts. (2) Seminar, two hours. Requisite: course 110C. Translation, grammatical analysis, and discussion of selections from premodern Sanskrit, Pali, and/or Prakrit texts. S/U grading.

260. Buddhism in India. (4) Lecture, three hours. Discussion, one hour. Knowledge of Indian languages not required. Overview of doctrinal and historical development of Buddhism from its origin to its disappearance in India, based not only on texts but on archaeological, art historical, and epigraphical sources. Examination of both formal doctrine 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.

M20. Visible Language: Study of Writing. (5) (Same as Asian M20, Indo-European Studies M20, Near Eastern Languages M20, and Slavic 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 semitic 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.

M60. Religious Traditions in Southeast Asia. (4) (Same as Religion M60E.) Lecture, three hours. Introduction to historical development and contemporary practices in Southeast Asia. Examination of indigenous religious beliefs and major textually based religions introduced to region, including Hinduism, Buddhism, Islam, and Christianity. P/NP or letter grading.

70. Modern Southeast Asian Literature. (4) Lecture, three hours; discussion, one hour. Introduction to modern literatures of Southeast Asia. Designed to expose students to range of literatures, predominantly novels and short stories, that were written across this region in response to dramatic changes caused by colonialism and its aftermath. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Honors seminar. Preparation: knowledge of Southeast Asian languages not required. Exploration of diversity of Southeast Asian literatures and cultures. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research 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 credit units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
130. Topics in Southeast Asian Literature. (4) Lecture, three hours. Requisite: one course from Comparative 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, language, and literature. P/NP or letter grading.

135. Religion and Society in Southeast Asia. (4) Lecture, three hours; discussion, one hour. Critical issues related to major religious traditions in Southeast Asia, with emphasis on reading and reflecting on recent scholarship regarding complex interactions between religion, state, and society in contemporary Southeast Asia. P/NP or letter grading.

140. Zomia: Peoples, Societies, and Cultures of Upland Southeast Asia. (4) Lecture, three hours; discussion, one hour. Recommended 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. 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 connect 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 Studies. (4-4-4) Lecture, three hours. Exploration of Southeast Asian culture through in-depth reading of texts and visual/audio materials. Topics may include literature, religion, folklore, cultural history, and society. 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 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. 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 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. 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 Southeast Asian. (4) Tutorial, to be arranged. Limited to juniors/seniors and graduate students. Emphasis on reading, writing, conversation, and comprehension. May be repeated for credit. Individual study with 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 Course

205. Southeast Asian Culture and History. (4) Seminar, three hours. Designed to expose graduate students to important concepts of Southeast Asia as region across multiple disciplines. Discussions led by instructor and guest faculty members about core elements of their discipline's engagement with Southeast Asia, as well as latest trends in theory and research in that area. Reading of classic texts, as well as research articles representing current state of field. S/U or letter grading.

Thai

Lower-Division Courses

1. Introductory Thai. (5) Lecture, three hours; discussion, 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; discussion, two hours. Requisite: course 1 with grade of C or better. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Introductory Thai. (5) Lecture, three hours; discussion, two hours. Requisite: course 2 with grade of C or better. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

4. Intermediate 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. Reinforcement of basic Thai 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 Thai. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Thai 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 Thai. (5) Lecture, five hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

9. 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-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 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 8 or Thai placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Thai. May be repeated for credit. P/NP or letter grading.

199. 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 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.

Vietnamese

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.

1A. Introductory Vietnamese for Heritage Learners. (5) Lecture, two hours; discussion, three hours. 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.

2. Introductory Vietnamese. (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.

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.

169. 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. 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.

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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) Lectures, three hours; discussion, one hour. Knowledge of Vietnamese not required. Focus on popular culture produced and consumed by, or about, people in Vietnam and diasporic communities. 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.

89H. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of 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.

109A. Advanced Tutorial Instruction in Vietnamese. (2) Tutorial, two hours. Requisite: course 6 or Vietnamese placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Vietnamese. May be repeated for credit. P/NP or letter grading.

CM155. Topics in Vietnamese Cinema and/or Literature. (4) Formerly numbered M155.) [Same as Asian Studies M173.] Lecture, three hours; discussion, one hour. Knowledge of Vietnamese not required. Critical and historical examination of literary and/or filmic representations connected to social practices such as empire, nation, diaspora, and globalization. Original language course materials available for interested students. May be concurrently scheduled with course C255. P/NP or letter grading.

155FL. Readings in Vietnamese. (2) Seminar, two hours. Requisite: course 3 or 3A. Enforced corequisite: course M155. Additional work in Vietnamese to augment work assigned in course M155, including reading, writing, and other exercises in Vietnamese. 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 indigenous 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 Vietnamese 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 intertwined and parallel histories of Korea and Vietnam, organized chronologically, but structured around key themes that serve as basis for comparison. Modern experiences of colonized Vietnam and Korea 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 antimunist 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.

189HC. Honors Contracts. (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. Honors content noted on transcript. P/NP or letter grading.

ARCHEOLOGY

Archaeological Methods and Theory

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Suzanne E. Paulson, PhD

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Assistant Professors

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Pablo E. Saide Peralta, PhD

Andrew L. Stewart, PhD

Robert Eagle Tripathi, PhD

Lecturer

Jeffrey K. Lew, PhD

Library

Research Center. May be repeated. P/NP or letter grading.

297B. Topics in Contemporary Vietnamese Culture. (4) Seminar, three hours. Selected topics in Vietnamese contemporary culture, including diasporic culture, with emphasis on cultural production. Primary materials combined with theoretical readings. S/U or letter grading.

See Physics and Astronomy

See Physics and Astronomy

See Physics and Astronomy
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 Science 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 PhD 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 independent 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
- 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 51, 90; Chemistry and Biochemistry 14A and 14B, or 20A and 20B; Earth, Planetary, and Space Sciences 71 (preferred) or Program in Computing 10A; 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 to UCLA: 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 used 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
- 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 90, Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, 1C, Program in Computing 10A (or Earth, Planetary, and Space Sciences 71), and one course selected from Atmospheric and Oceanic Sciences 1, 2, 3, 5, M17, 51. Chemistry and Biochemistry 14A and 14B (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 of 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, 115A, 131A, and 134, and three elective courses selected from 115B, 115B, 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, C160, C170, 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:
Atmospheric and Oceanic Sciences Minor

The Atmospheric and Oceanic Sciences minor provides a formal vehicle for students specializing in other science fields to pursue interests in the atmospheric and oceanic environment. It is designed to be flexible, recognizing that many topics in this field cross traditional disciplinary boundaries.

To enter the minor, students must have an overall grade-point average of 2.0 or better and must make an appointment with a departmental undergraduate advisor for approval in selecting a coordinated program of courses from within the department and related disciplines. For more information, contact the department at 310-825-1954.

Required Courses (28 units): Seven 4-unit courses, including (1) three from Atmospheric and Oceanic Sciences M100, M101, M102, M103, M104, M105, M106; (2) M110, M112, M114, M115; (3) M130, M137, M170, M150; (4) M180, M190, 191, 192, 193, 199; 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, 113B, 114, Earth, Planetary, and Space Sciences 15, Ecology and Evolutionary Biology 109, CHEM 182, 123A or 123B, 147, 148, Mathematics 115A, 115B, 132, 133, 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.

Groups of courses relevant to specific subareas of atmospheric 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, CHEM 182, 122; (3) atmospheric dynamics: Atmospheric and Oceanic Sciences 101, 102, Physics 112, 131, 132; (4) atmospheric dynamics and mathematical modeling: Atmospheric and Oceanic Sciences 101, 180, Mathematics 115A, 115B, 132, 133, 136, 142, 146; (5) oceanography and biology: Atmospheric and Oceanic Sciences 101, 103, 104, Ecology and Evolutionary Biology 109, 123A or 123B, 147, 148, Mathematics 115A, 115B, 132, 133, 136, 142, 146; (6) upper atmosphere: Atmospheric and Oceanic Sciences 101, M120, Physics 110A, 110B, M122.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

One course may be taken on a Passed/Not Passed basis; each of the other minor 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.

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 roles of climate change politics. P/NP or letter grading.

2. Air Pollution. (4) Lecture, three hours; discussion, one hour. Causes and effects of high concentrations of pollution in atmosphere. Topics include nature and sources of gaseous and particulate pollutants, their transport, dispersion, modification, and removal, with emphasis on atmospheric processes on scales ranging from individual sources to global effects; interaction with biosphere and oceans; stratospheric pollution. P/NP or letter grading.

3. Introduction to Atmospheric Environmental 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 variations of smog pollutants, and smog transport. P/NP or letter grading.

4. Introduction to Atmospheric Environmental Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 3. Investigations and demonstrations supporting material in course 3, including causes and effects of seasons, remote sensing and satellite picture interpretation, atmospheric stability, and weather systems (fronts and cyclones). P/NP or letter grading.

5. Climate 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. Enrolled students, conditions necessary for evolution of life, and its resulting effect on planetary environment. P/NP or letter grading.
Upper-Division Courses


M101. Environmental Chemistry. Lecture, four hours; discussion, one hour. Requisites: Mathematics 3B or 31B or Life Sciences 30B, 30C, or 30E. Atmospheric and oceanic chemical oceanography. Chemistry of oceanic and atmospheric processes that control distribution, abundance, and production of marine organisms and their spatial and temporal variability. Letter grading.


C112. Climate Change Assessment. (4) Lecture, three hours. Preparation: one upper-division course in Atmospheric or Oceanic Sciences or Environmental Science. Requisite: Mathematics 3B or 31B. Projection of future anthropogenic climate change and understanding of natural climate variability depend on international model intercomparison projects, on large observing systems coupling space and ground observations, and on multi-scientist climate assessments. Lectures, readings and projects address current issues in the scientific literature on assessment of the rate of change for both the surface and lower atmosphere in the atmospheric, oceanic and environmental sciences. P/NP or letter grading.

CM114. Aquatic Geobiology. (4) (Same as Earth, Planetary, and Space Sciences CM114.) Lecture, three hours; discussion, one hour. Recommended requisite: course M105 or Earth, Planetary, and Space Sciences C107. Fundamental geobiological insights of biogeochemical 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. Metabolisms include different photoautotrophic, heterotrophic, and chemosynthetic pathways. Interpretation of geological profiles and understanding of how microbiological systems govern mineralization and element cycling in aquatic systems. Concurrently scheduled with course CM237. P/NP or letter grading.

C115. Mesoscale Meteorology. (4) Lecture, three hours. Requisite: course 101. Observations of phenomena with horizontal scales ranging from 20 to 2,000 km. Topics include polar lows, air mass thunderstorms, multicell storms, supercell tornadoes, gust fronts, downbursts, microbursts, and dry line. Discussions on design of field projects. Concurrently scheduled with course C228. P/NP or letter grading.


135. Ocean Change in the Anthropocene. (4) Lecture, 90 minutes; laboratory, 90 minutes. Requires: course 103, 105. Review of major changes in human activities on ocean, from warming and acidification to overfishing, pollution, and exploitation of marine resources. Discussion of concepts of governance and sustainability. Introduces discipline-specific datasets 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. Corequisite: 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 solar radiation, 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 them. 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 1A, 1B, and 6C. Theory and application of atmospheric radiation, aerosol, and cloud processes. Topics include radiation, optics, microphysics, and cloud dynamics. Letter grading.
150. Atmospheric and Oceanic Sciences Laboratory. (5) Lecture, one hour; laboratory, six hours. Requisites: Mathematics 3B or 31B, Physics 1B and 1C (or 6B and 6C), Manipulation of environmental problems such as stratospheric ozone hole, current rise of greenhouse gas concentrations, and various severe weather phenomena, were first discovered and investigated using mathematical and physical techniques. Recent experimental observations remain crucial components in today's efforts to better understand weather, climate, and interactions of the atmosphere and oceans. Students work in small groups to gain hands-on experience in set up, performance, analysis, and reporting of different experiments. Introduction to underlying 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. Exchanges of energy, moisture, atmospheric trace gases, and momentum between terrestrial ecosystems and atmosphere. Interactions and feedbacks between ecosystem and atmospheric processes; status of plants and soils. Topics include canopy structure and function, leaf energy balance, and carbon and water fluxes between plants, soils, and atmosphere. Letter grading.

160. Remote Sensing of Atmosphere and Oceans. (4) Lecture, three hours. Requisite: Physics 1C or 6B. Theory and techniques of remote sensing; atmospheric spectroscopy, scattering, and polarization; passive and active techniques; remote satellite systems; inversion methods; remote sensing of clouds, aerosols, temperature, precipitation, and trace constituents; remote sensing of oceans and biogeography. Concurrently scheduled with course C240B. P/NP or letter grading.

170. Introduction to Solar System Plasma. (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. Study of ionization, heating, and dynamics of plasmas: currents, drifts, and instabilities. Examples of sun, solar wind, magnetospheres, and ionospheres of Earth and other planets and some of their magnetic phenomena, aurora. Concurrently scheduled with course C205A. Letter grading.


182. Data Analysis in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; laboratory, two hours. Enforced requisite: one course from 101 through M105. Recommended: one probability course. Overview of data analytic methods in common use in atmospheric and oceanic sciences: 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 C280. P/NP or letter grading.

185. Oceanography (2) Laboratory, six hours. Requisite: course C110. Limited to junior/senior Atmospheric, Oceanic, and Environmental Sciences majors. Daily contact with weather data and forecasting. Weather map data. Introduction to weather forecasting for aviation, air pollution, marine weather, 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 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 projects. Open to departmental majors and minors. 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 CollegeHonors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth, such as new developments, special projects, 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 Seminar, two hours. Preparation: Basic knowledge of meteorology (equivalent to course 3) and lower-division calculus, chemistry, and physics; coursework in atmospheric and oceanic sciences. Survey of current research projects presented by faculty members and research staff in seminar and/or panel discussion format. May be repeated for credit. P/NP 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 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 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. Culminating 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 aerosol chemical cycles; climate variability and change. S/U or letter grading.


201C. Atmospheric and Oceanic Turbulence. (4) Lecture, three hours. Requisite: course 200A. Recommended: course 201A. Turbulent flows that occur on small scales (c—<10 km) in atmosphere and ocean. Classical homogeneous, shear, convective, and boundary-layer turbulence and its geophysical implications; evolution of coherent structures, rotation, and wave phase changes. S/U or letter grading.


M202A. Introduction to Atmospheric Chemistry. (4) (Same as Civil Engineering M262A.) Lecture, three hours; discussion, one hour. Principles of chemical kinetics, thermochrometry, spectroscopy, and photochemistry; chemical composition and history of Earth's atmosphere; biogeochemical cycles, atmospheric and oceanic approximations. Rotating reference frame. Basic photochemistry of troposphere and stratosphere, upper atmosphere chemical processes; air pollution; chemistry and climate. S/U or letter grading.

M203B. Introduction to Atmospheric Physics. (4) Lecture, three hours; discussion, one hour. Principles of radiative transfer; absorption, emission, and scattering of solar and infrared radiation; radiation budget consideration; aerosols in atmosphere; principles of weather formation and ice crystal nucleation and accretion; precipitation processes; radiative forcings of clouds/aerosols and climate feedback. S/U or letter grading.

C205A. Introduction to Solar System Plasmas. (4) Lecture, three hours; discussion, one hour. 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. Study of ionization, heating, and dynamics of plasmas: currents, drifts, and instabilities. Examples of sun, solar wind, magnetospheres, and ionospheres of Earth and other planets and some of their magnetic phenomena, aurora. Concurrently scheduled with course C205A. Letter grading.

C205B. Introduction to Solar-Terrestrial Physics. (4) Lecture, three hours; discussion, one hour. Solar, interplanetary, magnetospheric, ionospheric, auroral, geomagnetic phenomena and related theoretical background for studies in space physics. Contextual understanding and literacy in space physics terminology provided. 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.

C205C. Planetary Upper Atmospheres. (4) Lecture, three hours; discussion, one hour. Aeronomy of upper atmospheres of the Earth and other planets; some of their satellites—thermospheric structure and morphology, circulations, and disturbances; ionospheres as collisional and magnetized (unmagnetized) plasmas; aurorae; drifts and waves of upper atmospheric interaction with lower atmosphere and magnetosphere. 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.

C206. Introduction to Biophysical Modeling of Land Surface Processes and Land/Astmosphere Interactions. (4) (Same as Geography M260.) Lecture, two hours; laboratory, one hour; reading period, one hour. Designed for graduate students. Presentation of
209. Climate Change Assessment. (4) Lecture, three hours; discussion, one hour. Corequisites: graduate atmospheric, oceanic, hydrological, or climate science courses. Lectures, readings, and projects on current issues in projections of future anthropogenic climate change; design and use of resources from Coupled Model Intercomparison Project (CMIPs), topics from large multinational climate assessments, including Intergovernmental Panel on Climate Change (IPCC). Issues in modeling current climate, including natural climate variability, paleoclimate, and global change under standardized scenarios for future anthropogenic greenhouse gases and aerosols. May be repeated for credit. 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.

Dynamic and Synoptic Meteorology

M210. Planetary Atmospheres and Climates. (4) (Formerly numbered 210.) (Same as Earth, Planetary, and Space Sciences M229.) Lecture, three hours. Enforced requisites: one of atmospheric thermodynamics, basic thermodynamics, or oceanograpy. Restriction: undergraduate registration by permission of chair. Corequisites: graduate atmospheric, oceanic, hydrological, or climate science courses. Lectures, readings, and projects on current issues in projections of future anthropogenic climate change; design and use of resources from Coupled Model Intercomparison Project (CMIPs), topics from large multinational climate assessments, including Intergovernmental Panel on Climate Change (IPCC). Issues in modeling current climate, including natural climate variability, paleoclimate, and global change under standardized scenarios for future anthropogenic greenhouse gases and aerosols. May be repeated for credit. 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.

211. Planetary Wave Dynamics and Teleconnections in the Atmosphere. (4) Lecture, three hours. Requisite: course 201B. Dynamics of stationary and low-frequency waves in Earth’s atmosphere and ocean with applications to remote impacts of climate variability. Propagation of barotropic and baroclinic Rossby waves in spatially varying flow. Interactions with storm tracks and mean flow. Teleconnection patterns. 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.

212A. Numerical Methods in Geophysical Fluid Dynamics. (4) Lecture, three hours. Requisite or corequisite: course 201A. Numerical methods for initial-boundary value problems in fluid dynamics, with emphasis on applications to atmospheric and oceanographic problems. Finite-difference methods and truncation error. Linear and nonlinear computational instability. Computational modes and computational boundary conditions. Nonlinear shallow-water equation model. Spectral methods. 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.

212B. Numerical Modeling of Atmosphere I. (4) Lecture, three hours. Requisite: courses 201B, 212A. Dynamics of numerical weather prediction and climate models and their computational design. Basic governing equations; vertical and horizontal coordinates; Quasi-geostrophic and balanced models. Shallow-water equation model. Three-dimensional primitive equation models. Limited-area 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.


214. Theoretical Climatic Dynamics. (4) Lecture, three hours. Requisite: course 201B. Introduction to weather and energy balance models (EBMs). Multiple equilibrium climates and their stability, Coupled EBMs of atmosphere and oceans. Climatic history of our planet. Continuum mechanics of ice sheets and mantle. Oscillatory models of Quaternary glaciation cycles. Transitions from equilibrium to periodic and aperiodic climate behavior. Climatic predictability. 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.


216A. Tropical Motions with Moist Processes. (4) Lecture, three hours. Requisite: course 201C.Cumulus convection and the boundary layer in tropics. Cloud clusters and mesoscale convection systems. Interactions of cumulus convection and the boundary layer environment. Tropical cyclones. Monsoon meteorology. 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.


218. Dynamics of Atmosphere/Ocean System. (4) Lecture, three hours. Transfer of properties between atmosphere and ocean; wind-driven ocean currents; coastal upwelling. Air/sea interactions. Effects of oceans on climate. 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.


C222. Atmospheric Boundary Layer. (4) Lecture, three hours. 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 processes of atmospheric boundary layer and turbulence and processes that determine them. Concurrently scheduled with course C144. S/U or letter grading.

224A. Atmospheric Turbulence. (4) Lecture, three hours. Kinematics of atmospheric boundary layer and turbulent surface and planetary boundary layers, including heat transfer and turbulent convection. Survey of field and laboratory observations and their interpre- tation by theory. S/U (for majors with consent of in- structor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

M224B. Atmospheric Diffusion and Air Pollution. (4) (Same as Civil Engineering M229B.) 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 (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.

C227. Advanced Dynamic and Synoptic Meteorology. (6) Laboratory, six hours. Requisite: course 201. Weather map analysis, thermodynamic diagrams, sat- ellite interpretation, severe weather forecasting, ieron meteorology, analysis, forecasting, air mass; geostrophic omega equation. Concurrently scheduled with course C110. S/U (for majors with consent of instructor after successful completion of written and oral comprehensi- ve examination and for nonmajors at discretion of major department) or letter grading.

C228. Mesoscale Meteorology. (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 diverse observational field projects. Concurrently scheduled with course C115. S/U (for majors with consent of in- structor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


Atmospheric Physics and Chemistry

230A. Atmospheric Chemistry I. (4) Lecture, three hours. Requisite: course M203A. Photochemistry of troposphere; chemical physics of surfaces and solutions; precipitation chemistry and acid rain; atmo- spheric organic chemistry; regional and global biogeo- chemical 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.

C220. Atmospheric Chemistry II. (4) Lecture, three hours. Requisite: course M203A. Photochemistry of stratosphere and mesosphere; basic ionospheric pro- cesses; stratospheric pollution and ozone layer; phys- ical chemistry of upper atmosphere clouds and aero-
244A. Atmospheric Radiative. (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 for climate studies. Topics include radiative transfer, radiative-convective methods for treating gaseous absorption, simplified methods for radiative transfer in Rayleigh and Lorenz/Mie atmospheres, and global radiative equilibrium. Use of user-friendly programs to perform calculations of radiative fluxes and heating rates in various atmospheric conditions for climate applications. S/U or letter grading.


Upper Atmosphere and Space Physics


250B. Solar System Microscopic Particle Processes. (4) (Formerly numbered 225B.) Lecture, three 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.

250C. Ionospheric Electrodynamics. (4) Lecture, three hours. Ionospheric structure, currents, and electric fields; equatorial and high-latitude ionospheres; ionospheric control of magnetospheric 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.

250D. Ionospheric Stability. (4) Lecture, three hours. Requisite: course 250B. Turbulent plasma instabilities and their relation to satellite observations and magnetospheric processes responsible for source, loss, and transport of energetic 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.


259. Space Weather. (4) Lecture, three hours. Identification, description, and theories for major disturbances in magnetospheric/heliospheric system, storms, substorms, convection belts, and other disturbances. Connections to interplanetary conditions, particle injection and precipitation, currents and fields. S/U 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 model 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 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.

M272A–M272B–M272C. Seminars: Climate Dynamics. (2 to 4 each) (Same as Earth, Planetary, and Space Sciences M272A–M272B–M272C and Geophysics M272A–M272B–M272C.) Seminar, three hours. Analytical, experimental, observational, theoretical, and/or computer studies of physical, chemical, and biological processes and models of coupled systems. Topics include climate processes, variations, forcings, and feedbacks over different spatial and temporal 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 of temperature and CO2. Atmospheric, oceanic, hydrological, and climate sciences. Aerobatics, atmospheric, biogeochemical cycles and climate. Interactions between biogeochemical cycles on land and in ocean. S/U or letter grading.

274. Seminar: Atmospheric Chemistry. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.

275A–M275B–M275C. Seminars: Space Physics. (2 to 4 each) (Same as Earth, Planetary, and Space Sciences M275A–M275B–M275C.) Seminar, one hour. Problems of interest concerning particles and fields in space. 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 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 research interest in solar wind, magnetospheric, or ionospheric physics. S/U or letter grading.

286. Statistical Prediction and Verification. (2) 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 prediction. 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.


296O. 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.


Bioengineering / 245

Bioengineering

Henry Samueili School of Engineering and Applied Science

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Bioinformatics
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Department e-mail

Song Li, PhD, Chair
Dino Di Carlo, PhD, Graduate Vice Chair
Jacob J. Schmidt, PhD, Undergraduate Vice Chair

Faculty Roster

Professors
Denise R. Aberle, MD
Pei-Yu Chiou, PhD
Mark S. Cohen, PhD, in Residence
Linda L. Demer, MD, PhD
Timothy J. Deming, PhD
Dino Di Carlo, PhD
Robin L. Garrell, PhD
Zhen Gu, PhD
Tzung K. Hsai, MD, PhD, in Residence
Bahram Jalali, PhD
Daniel T. Kamei, PhD
Andrea M. Kasko, PhD
H. Pirouz Kavehpour, PhD
Ali Reza Khademhosseini, PhD
Chang-Jin (CJ) Kim, PhD (Volgenau Endowed Professor of Engineering)
Debiao Li, PhD, in Residence
Song Li, PhD
Wentai Liu, PhD
Aman Mahajan, MD, PhD, in Residence
Arash Naeem, PhD
Aydogan Ozcan, PhD
Jacob Rosen, PhD
Jacob J. Schmidt, PhD
Vivek Shetty, DDS, DrMedDent
Kalyanam Shivkumar, MD, PhD, in Residence
Maie St. John, MD, PhD
Ren Sun, PhD
Yi Tang, PhD
Michael A. Teitel, PhD
Cun-Yu Wang, DDS, PhD
Paul S. Weiss, PhD (Presidential Professor of Chemistry)
Gerard C.L. Wong, PhD
Yang Yang, PhD

Professors Emeriti
Chih-Ming Ho, PhD (Ben Rich Lockheed Martin Professor Emeritus of Aeronautics)
Edward R.B. McCabe, MD, PhD (Mattice 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

Assistant Professors
Jun Chen, PhD
Stephanie K. Seidlits, PhD
Holden H. Wu, PhD, in Residence

Adjunct Professor
James C.Y. Dunn, MD, PhD

Adjunct Associate Professors
Sophia N. Barbare, PhD

Mehmet Dokmeci, 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

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, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Computer Sci-
ence 31 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4A.

Students must also complete one of two life sciences sequences—either Life Sciences 2 (satisfies school GE life sciences requirement) and 3, or 7A (satisfies school GE life sciences requirement) and 7C. They may not substitute courses in either sequence.

**The Major**

Students must complete the following courses:

1. Bioengineering 100, 110, 120, Electrical and Computer Engineering 100, Engineering 183EW or 185W, 167L, 176, 180; 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. Two major field elective courses (8 units) from Bioengineering C101, C106, C131, C155, M260 (a petition is required for M260).

3. Five additional major field elective courses (20 units) from Bioengineering C101 (unless taken under item 2), CM102, CM103, C104, C105, C106 (unless taken under item 2), C131 (unless taken under item 2), CM140, CM145, C147, M135 (unless taken under item 2), C170, C171, CM178, C179, 180L, C183, C185, 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, 111, 120, 130, 132, 143A, 150, 151, 160, 161. The above materials science and engineering courses may be used to satisfy the technical breadth requirement.

**Biomedical Devices:** Bioengineering C131, M153, C172, 199 (8 units maximum), Electrical and Computer Engineering 102, Mechanical and Aerospace Engineering C187L. The electrical and computer engineering or mechanical and aerospace engineering courses listed above may also 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 biological 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. Required: Mathematics 32A, Physics 1A. Fundamental basis for analysis and design of biological and biomedical devices and systems. Classical and statistical thermodynamics analysis of biological systems. Material, energy, charge, and force balances. Introduction to network analysis. Letter grading.


CM102. Human Physiological Systems for Bioengineering I. (4) (Same as Physiology Science C102.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiology Science majors. Broad overview of basic biological activities and organization of human body in system (organ/tissue) to system basis, with particular emphasis on molecular basis. Modeling/simulation of functional aspect of biological system included. Actual demonstration of biomedical instruments, as well as visits to biomedical facilities. Concurrently scheduled with course CM202. Letter grading.


C104. Physical Chemistry of Biomacromolecules. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Required: 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 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 involving biomacromolecules such as 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. Required: 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 degradation behavior, and nondegradable linkers. Presentation and discussion of design and synthesis of synthetic bioconjugates for some sample applications. Concurrently scheduled with course C205. Letter grading.

C106. Topics in Bioelectricity for Bioengineers. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Required: Chemistry 20B, Life Sciences 2, 3, 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 electrosatistics in dielectric media, building on complex ions and ion activity actions potentials and signal propagation in nerves. Topics include Nernst/Planck and Poisson/Boltzmann equations. Nernst potential, Donnan equilibrium, GHK equations, energy barriers in ion channels, cable equation, action potentials, Hodgkin/Huxley equations, impulse propagation, axon geometry and conduction, dendritic integration. Concurrently scheduled with course C206. Letter grading.

C107. Polymer Chemistry for Bioengineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Required: course C104 or C105. Fundamental concepts of polymer synthesis, including step-growth, chain 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 functional groups, chain copolymerization, and stereochemistry in polymerization presentations. Application of applications of use of different polymerization techniques. Concepts of step-growth, chain-growth, ring-opening, and coordination polymerization, and effects of synthesis route on polymer properties. Lectures include both theory and practical issues demonstrated through examples. Concurrently scheduled with course C207. Letter grading.

110. Biorobotics and Bioreaction Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Required: course 100. Mathematics 33B. Introduction to analysis of fluid flow, heat transfer, mass transfer, enzymes, and biochemical reactions in systems of interest to bioengineers, including cells, tissues, organs, human body.
extracorporeal devices, tissue engineering systems, and biomaterials. Introduction to pharmacokinetic analysis. Letter grading.


137C. Applied Tissue Engineering. (4) Letter, three hours; discussion, two hours; outside study, seven hours. Requisites: course 100, 120, 135 or 150A, 136, 136B, or 136C, or permission of instructor. Letter grading.

139A. Biomolecular Materials Science I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Overview of chemical and physical foundations of biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different types of interactions that exist between biomolecules, such as van der Waals interactions, entropically modulated electrostatic interactions, hydrophobic interactions, hydration and solvation interactions, polymer-mediated interactions, depletion interactions, molecular recognition, and illustration of these ideas using examples from bioengineering and biomedical engineering. Students should be able to make simple calculations and estimates that allow them to engage breadth of bioengineering problems, such as those in drug and gene delivery and tissue engineering.

139B. Biomolecular Materials Science II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Course 139A is not requisite to 139B.

140. Introduction to Biomechanics. (4) Same as Mechanical and Aerospace Engineering CM140.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mechanical and Aerospace Engineering 101, 102, and 156A or 166A. Introduction to biomechanical functions of human body; skeletal adaptations to stress and strain, and functional dynamics and kinematics. Fluid mechanics applications of numerous biological systems. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM145.

145. Molecular Biotechnology for Engineers. (4) Same as Chemical Engineering CM145.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: Chemical Engineering 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 microarrays, nanotechnology, and protein-based diagnostics, genomics and bioinformatics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM245. Letter grading.

145D. Molecular Biotechnology. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Emphasis on microarrays, bioinformatics, biocompatibility, systems biology, and applications of bioinformatics to diagnostics and drug discovery. Letter grading.

147. Energy-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Enforced requisite: Life Sciences 2, Physics 1C. Introduction to therapeutically and diagnostic use of energy delivery devices in medical and dental applications, with emphasis on understanding fundamental mechanisms underlying various types of energy-tissue interactions. Concurrently scheduled with course C270. Letter grading.

147L. Introduction to Techniques in Studying Lasers and Non-Laser Interaction in Tissues. Four hours; outside study, two hours. Corequisite: course C170. Introduction to simulation and experimental techniques used in studying laser-tissue interactions. Topics include computer simulations of light propagation in tissue, measuring absorption spectra of tissue/phantom tissues, making tissue phantoms, determination of optical properties of different tissues, techniques of temperature measurements. Concurrently scheduled with course C270L. Letter grading.

147L. Laser-Tissue Interaction II: Biologic Spectroscopy. (4) Lecture, four hours; outside study, eight hours. Lectures: course C170. Introduction to optical spectroscopy principles, design of spectroscopic measurement devices, optical properties of tissues, and fluorescence biologic media. Concurrently scheduled with course C271L. Letter grading.

147L. Design of Minimally Invasive Surgical Tools. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 30B, Life Sciences 2, 3, Mathematics 32A. Introduction to design principles and engineering concepts used in design and manufacture of tools for minimally invasive surgery. Coverage of FDA regulatory policy and surgical procedures. Topics include optical devices, endoscopes and laparoscopes, biopsy devices, laparoscopic ultrasonic surgical devices and cold-air diathermy devices, orthopedic instrumentation, and integration of devices with therapy. Examination of complex process of tool design, fabrication, testing, and validation. Preparation of drawings and consideration of development of new and novel devices. Concurrently scheduled with course C272L. Letter grading.

147L. Machine Learning and Data-Driven Modeling in Biomechanical Engineering. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Requisites: Civil Engineering M20 or Mechanical and Aerospace Engineering M20, Computer Science 31, Mathematics 32B, 33A. Overview of foundational data analysis and machine-learning methods relevant to biomechanics, focusing on how these techniques can be applied to interpret experimental observations. Topics include probability distributions, cross-validation, analysis of variance, and biophysical models. Random feature extraction, dimensionality reduction, regression, Hidden Markov models, and clustering. Students gain theoretical and practical knowledge of data analysis and machine-learning methods relevant to biomechanical engineering. Applicability of these methods to experimental data from biomechanics studies. Students become sufficiently familiar with these techniques to design studies incorporating these analyses. Students work in teams using similar approaches, and ensure correctness of their results. Concurrently scheduled with course C272L. Letter grading.

148L. Principles of Biocompatibility. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 100, Mathematics 33B, Physics 1C. Biocompatibility at systemic, tissue, cell, and molecular levels. Emphasis on research and writing within engineering environments. Satisfies engineering writing requirement. Letter grading.

167L. Bioengineering Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: Chemistry 20L. Laboratory experiences in fluorescence microscopy, biocatalysis, soft lithography, and cell culture culminate in design of engineered surface for cell growth. Introduction to techniques used in laboratories and their underlying principles. Chemical and biological reactions connect laboratory techniques to current biomedical engineering research and reinforce experimental design skills.

176. Principles of Biocompatibility. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 100, Mathematics 33B, Physics 1C. Biocompatibility at systemic, tissue, and cellular levels. Emphasis on research and writing within engineering environments. Satisfies engineering writing requirement. Letter grading.
lular, and molecular levels. Biomechanical compati-
bility, stress/strain constitutive equations, cellular and 
molecular response to mechanical signals, biochem-
ical and cellular compatibility, immune response. 
Letter grading.

177A. Bioengineering Capstone Design I. (4) 
Lecture, four hours; laboratory, six hours; outside study, four hours. Enforced requisites: courses 167L, 176. Lectures, seminars, and discussions on aspects of biomedical device and therapeutic design, including meetings with scientific/clinical advisers and guest lectures from scientists in industry. Working in teams, students de-
velop innovative solutions to address current prob-
lems in medicine and health. Students conduct con-
ducted experiments and computational modeling, give oral presentations, write reports, and participate in bioengineering design competition. Letter grading.

CM178. Introduction to Biomaterials. (4) Same as Materials Science CM180. Lecture, three hours; discus-
sion, two hours; outside study, seven hours. Requir-
sites: Chemistry 20A, 20B, and 20L, or Materials Sci-
ence 104. Engineering materials used in medicine and dentistry for repair and/or restoration of damaged nat-
ural tissues. Topics include relationships between ma-
terial properties, suitability to task, surface chemistry, 
processing and treatment methods, and biocompati-

180L. System Integration in Biology, Engineering, and Medicine I. (4) Lecture, three hours; discussion, 
two hours; outside study, seven hours. Enforced re-
quizzes: course CM178. In-depth exploration of host cellular 
response to biomaterials: vascular response, inter-
face, and clotting, biocompatibility, animal models, 
flammation, infection, extracellular matrix, cell adhe-
sion, and immune response factors. Concurrently scheduled with course CM278. Letter grading.

C179. Biomaterials-Tissue Interactions. (4) Lecture, 
three hours; outside study, nine hours. Requisite: 
course CM178. In-depth exploration of host cellular 
response to biomaterials: vascular response, inter-
face, and clotting, biocompatibility, animal models, 
flammation, infection, extracellular matrix, cell adhe-
sion, and immune response factors. Concurrently scheduled with course CM278. Letter grading.

180. System Integration in Biology, Engineering, and Medicine I Laboratory. (4) Lecture, one hour; 
laboratory, four hours; clinical visits, four hours; out-
side study, three hours. Corequisite: course 180. 
Hands-on experimentation and clinical applications of 
selected medical therapeutic devices associated with 
cardiocirculatory and pulmonary disorders. Letter grading.

M182. Systems Biomodeling and Simulation Ba-
sics. (4) (Same as Computer Science M182.) Lecture, 
three hours; discussion, one hour; laboratory, two 
hours; outside study, six hours. Requisite: Mathemat-
ics 3B, 31B, or Life Sciences 30A. Recommended 
corequisite: Mathematics 3C, 32A, or Life Sciences 30B. Descriptive, predictive, and computational mod-
eling of life sciences engineering and in-
ing. Introduction to explicit mod-
elling and simulation of dynamic biological systems. 
Presentation of how biology, biochemistry, and physi-
ology underlies systems biology. Models are 
transformed into system diagrams and graphs for re-
fining conceptual understanding of their form and 
function. Structural models, formulated from basic 
conservation and mass action laws, and feedback con-
cepts, are further transformed into first-order dif-
ferential equations, and implemented in simulation di-
agrams for quantifying and exploring biosystem prop-
eries. Examples show how to use these explicit 
models to gain clarity on nature of biosystem phe-
nomena, and frame questions and explore new ideas 
for research. Letter grading.

C183. Targeted Drug Delivery and Controlled Drug 
Release. (4) Lecture, two hours; discussion, two 
hours; laboratory, two hours. Enforced requisites: Chem-
istry 20A, 20B, 20L. New therapeutics require compre-
henensive understanding of modern biology, physiology, 
biomaterials, and engineering. Targeted delivery of 
genes and drugs and their controlled release are im-
portant in treatment of challenging diseases and rele-
vant to tissue engineering and regenerative medicine. 
Drug targeting involves biocompatibility, pharmacoki-
etics, Application of engineering principles (diffusion, 
transport, kinetics) to problems in drug formulation and 
delivery to establish rationale for design and de-
velopment of novel drug delivery systems that can pro-
vide effective delivery. Introduction to biomaterials with specialized structural and interfacial properties. Exploration of both chem-
istry of materials and physical presentation of devices 
and compounds used in delivery and release. Concur-
rently scheduled with course CM283. Letter grading.

M184. Introduction to Computational and Systems 
Biology. (2) (Same as Computational and Systems Bi-
ology M184.) Lecture, two hours; outside study, four hours. Enforced requi-
sites: one course from Civil Engineering M20, Com-
puter Science 31, Mechanical and Aerospace Engi-
neering M20, or Biology M10A, or Mathematics 3B or 31B. Survey course designed to intro-
duce students to computational and systems 
modeling and simulation in biology and medicine, 
providing motivation and background, and cut-
ting-edge contributions in computational biosciences and 
aiming for more informed basis for focused studies by 
students with computational and systems biology in-
terests. Presentations by individual UCD faculty, 
and student presentations discussing their active computational and systems bi-
ology research. P/NP grading.

C185. 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 engi-
neering approach to regenerate tissues and organs. 
Guiding principles for selection of three basic 
components for tissue engineering: cells, scaffolds, 

CM186. Computational and Systems Biology: Modelling 
and Simulation of Biological Systems. (5) Same as 
Computational and Systems Biology M186, Computer 
Science CM186, and Ecology and Evolutionary Bi-
ology M187, Laboratory, four hours; three 
hours; outside study, eight hours. Dynamic biosys-
tems modeling and computer simulation methods for 
studying biological/biomedical processes and sys-
tems at multiple levels of organization. Control 
system, multicomponental, predator-prey, pharma-
cokinetic (PK), pharmacodynamic (PD), and other 
structural modeling methods applied to life sciences 
problems at molecular, cellular (biochemical path-
ways/networks), organ, and organismal levels. Both 
theory- and data-driven modeling, with focus on 
translating biomodeling goals and data into mathe-
matics models and implementing them for simula-
ion and analysis. Basics of numerical simulation algo-
rithms, with modeling software exercises in class and 
PC laboratory assignments. Concurrently scheduled with course CM286. Letter grading.

CM187. Research Communication in Computa-
tional and Systems Biology. (4) Same as Computa-
tional and Systems Biology M187 and Computer Sci-
ence CM187. Lecture, four hours; outside study, eight 
hours. Requisites: concurrent with course CM186. Closely 
directed, interactive, and real research experience in active quan-
titative systems biology research laboratory. Direction 
on how to focus on topics of current interest in scien-
tific community, addressing results, and preparing 
theses and presentations. Opinions of oral presentations and written progress reports explain how to proceed with search 
for research results. Major emphasis on effective re-
search 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 un-
dergraduate students taught on a temporary basis, such as those taught by resident and 
visiting faculty members. May be repeated with credit 
for 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 facilita-
tors. Individual study in regularly scheduled meetings 
with faculty mentor to discuss and develop a term-
plan topic, conduct preparatory research, and begin prepa-
ration 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 analyze course CM278 case study 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 885 course. 
Individual contract with faculty mentor required. May not be repeated. Letter grading.

(Seminar, three hours. Limited to bioengineering un-
dergraduate students who are part of research group. 
Study and analysis of current topics in bioengineering. 
Discussion of current research literature and 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/seniors. 
Supervised individual research or investigation under 
guidance of faculty mentor. Capstone paper or project 
required. May be repeated for credit. Letter grading.

Graduate Courses

C201. Engineering Principles for Drug Delivery. (4) 
Lecture, four hours; discussion, one hour; outside study, 
seven hours. Enforced requisites: Mathematics 3A, 3B, 31B. Application of engineering principles for designing and understanding delivery of therapeu-
tics. Discussion of physics and mathematics required for 
understanding colloid stability. Analysis of con-
cepts related to both modeling and experimentation of 
endocytosis and intracellular trafficking mechanisms. 
Analysis of diffusion of drugs, coupled with computa-
tional and engineering mathematics approaches. Con-
ference scheduled with course C101E. Letter grading.

CM202. Human Physiological Systems for Bioengi-
nieing I. (4) (Same as Physiological Science CM202.) 
Lecture, three hours; laboratory, two hours. Preparation: 
human molecular biology, biochemistry, and cell biology. 
Not open for credit to Physiological Science majors. 
Broad overview of basic biological activities and 
analyses of human body in system (organ/tissue) to 
organ system, with particular emphasis on medical 
emergencies. Student projects taught on modeling/simulation 
of functional aspect of biological system included. 
Actual demonstration of biomedical instruments, as 
well as visits to biomedical facilities. Concurrently scheduled with course CM201. Letter grading.

CM203. Human Physiological Systems for Bioengi-
nieing II. (4) (Same as Physiological Science CM203.) 
Lecture, three hours; laboratory, two hours. Preparation: 
human molecular biology, biochemistry, and cell biology. 
Not open for credit to Physiological Science majors. 
Molecular-level understanding of human anatomy and 
physiology in selected organ sys-

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tems (digestive, skin, musculoskeletal, endocrine, im-
mune, nervous, reproductive). System-specific modu-
lation/simulations (immune regulation, wound healing, muscle mechanics and energetics, acid-base balance, excretion). Functional basis of biomedical instrumen-
tation (diagnosis, analysis, skin, pathogen detectors, ul-

C204. 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 im-
perative to understand 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 ther-
odynamics and phase behavior, polymer networks, and viscoelasticity. Application of engineering principles to problems involving biomacromolecules such as protein conformation, solvation of charged species, and separation and characterization of bio-
macromolecules. 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 biomolec-
ules with other molecules. Oligonucleotides may be coupled to one surface in gene chip, or one protein may be coupled to one polymer to en-
brace its stability in serum. Wide variety of bioconju-
gates (proteins, antibodies) are used in pharmacological, in sen-
ors, in medical diagnostics, and in tissue engineering. Basic concepts of chemical ligation, including choice and design of conjugate linkers depending on type of bioconjugate application, such as degrad-
able versus nondegradable linkers. Presentation and discussion of design and synthesis of synthetic bio-
conjugates 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, eight hours. Requisites: Chemistry 20B, Life Sciences 2, 3, Mathematics 33B, Physics 1C. Cov-
erage in depth of physical processes associated with biological membranes and channel proteins, with spe-
cific emphasis on electrophysiology. Basic physical principles governing electretics in dielectric media, building up from dipoles ultimately address action potentials and signal propagation in nerves. Topics in-
clude Nerst/Planck and Poisson/Boltzmann equa-
tions, Nerst potential, Donnan equilibrium, GHK equation, Goldman equation in ion channels, conduction equation, action potentials, Hodgkin/Huxley equa-
tions, impulse propagation, axon geometry and con-

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, in-
cluding step-growth, chain growth (ionic, radical, metal catalyzed), and ring-opening, with focus on fac-
tors that can be used to control chain length, chain length distribution, tacticity, crosslinking, chain copolymerization, and stereochemistry in polymeriza-
tions. Presentation of applications of use of different polymerization techniques. Concepts of step-growth, chain-growth, radical, cationic, and coordinative polymer-
ization, and effects of synthesis route on polymer properties. Lectures include both theory and practical is-
sues demonstrated through examples. Concurrently scheduled with course C107. Letter grading.

M214A. Digital Speech Processing. (4) [Same as Electrical and Computer Engineering M214A.] Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisite: Electrical and Computer Engi-
neering 101C. Introduction to digital applications of digital and analog signals, synthesis and pro-
cessing of speech signals. Mathematical models of human speech production and perception mecha-
nisms, speech analysis/synthesis. Techniques include linear prediction, filter-bank models, and homor-
ophonic filtering. Applications include speech synthesis, auto-
matic recognition, and hearing aids. Letter grading.

M215. Biochemical Reaction Engineering. (4) (Same as Chemical Engineering CM215.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry and Chemical Engineering 101C. Use of previously learned concepts of biophys-
ical chemistry, thermodynamics, transport phe-
nomena, and reaction kinetics to develop tools needed to understand and model analysis of biological reactors. Letter grading.

M217. Biomedical Imaging. (4) (Same as Electrical and Computer Engineering M217.) Lecture, three hours; discussion, eight hours. Requisite: Electrical and Computer Engineering 114 or 211A. Optical imaging modalities in biomed-
cine. Other nonoptical imaging modalities discussed briefly for comparison purposes. Letter grading.

M219. Principles and Applications of Magnetic Resonance Imaging. (4) (Same as Physics and Bi-
ology in Medicine M219.) Lecture, three hours; discus-
sion, one hour. Basic principles of magnetic reso-
ance (MR) physics. Emphasis on hardware, Bloch equations, analytic expressions, image contrast mechanisms, spin and gradient echoes, Fourier transform imaging methods, structure of pulse sequences and parameters. Intro-
duction to advanced techniques in rapid im-
aging, quantitative imaging, and spectroscopy. Letter grading.

219A. Introduction to Medical Informatics. (2) Le-
cure, two hours; outside study, four hours. Designed for graduate students. Introduction to research topics and issues in medical informatics for students new to the field. Current research efforts, and future directions in research. Key topics in medical informatics to expose students to different application domains, such as information system architecture, data and process modeling, in-
formation extraction, information retrieval, visualiza-
tion, and visualization, health services research, telemedicine. Emphasis on current research en-
deavors and future applications.

221. Human Anatomy and Physiology for Medical and Imaging Informatics. (4) Lecture; four hours; outside study, eight hours. Designed for graduate stu-
dents. Introduction to basic human anatomy and physiol-
ogy, with particular emphasis on understanding and visualization of anatomy and physiology through medical images. Topics relevant to acquisition, repre-
sentation, and dissemination of anatomical knowledge in computerized clinical applications. Topics in-
clude chest, cardiac, neurology, gastrointestinal/genitori-
hary, endocrine, and musculoskeletal systems. Intro-
duction to basic imaging physics (magnetic reso-
ance, computer tomography, and digital radiogra-
phy) to provide context for imaging modalities pre-
dominantly used to view human anatomy. Geared toward nonphysicians who require more formal under-
standing of human anatomy/physiology. Letter grading.

222A-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 core curriculum courses. Exposure to programming concepts for medical-
data acquisition, analysis, and visualization of medical images. Introduction to basic techniques and on-
going challenges. Letter grading.

M223. Principles of Magnetic Resonance. (4) (Same as Information Studies M253.) Seminar, four hours; discussion, one hour; outside study, seven hours. Enforced corequisite: Chemical Engi-
neering 101C. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying materials like whole cells, en-
zymes, food additives, or pharmaceuticals that are products of biological reactors. Letter grading.

M224. Advances in Imaging Informatics. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Overview of informatics-based applications of medical imaging with focus on various advances in field, such as con-
tent-based image retrieval, computer-aided detection/ diagnosis, and imaging genomics. Examination of core concepts in information retrieval (IR), reviewing sem-
inal papers on evaluating IR systems and their use in medicine (e.g., teaching files, case-based retrieval, etc.), examination of specific techniques for image feature extraction and processing, feature representa-
tion, indexing and querying, and classification (ma-
chine/deep learning). Survey of clinical applications of these techniques and ongoing challenges. Letter grading.

M225. Bioseparations and Bioprocess Engineer-
ing. (4) (Same as Chemical Engineering CM225.) Lecture, four hours; discussion, one hour; outside study, eight hours. Designed for graduate students. Introduction to bio-
separations and bioprocess engineering. Letter grading.

M226. Medical Knowledge Representation. (4) (Same as Information Studies M226.) Lecture, four hours; discussion, one hour; outside study, eight hours. Designed for graduate students. Topics include data structures used for repre-
sentation of knowledge (conceptual graphs, frame-based models), 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 implementation and definition. Common medical ontologies, coding schemes, and standard-
ized indices/terminologies (SNOMED, UMLS). Letter grading.

M227. Medical Information Infrastructures and In-
teroperability. (4) [Same as Information Studies M254.] Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to topics in networking, communications, and information infrastructures in medical environment. Exposure to basic concepts of networking (concepts, graphs, frames, models) and commonly used medical communication protocols (HL7, DICOM) and current medical information systems (HIS, RIS, PACS), Advances in networking, such as wireless health sys-
tems. Letter grading.

M228. Information Retrieval and Knowledge Discovery. (4) (Same as Electrical and Computer Engineering 228B.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Topics include data structures used for repre-
sentation of knowledge (conceptual graphs, frame-based models), 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 implementation and definition. Common medical ontologies, coding schemes, and standard-
ized indices/terminologies (SNOMED, UMLS). Letter grading.
M229. Medical Decision Making. (4) (Same as Information Studies M255S.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Overview of issues related to medical decision making. Introduction to concept of evidence-based medicine and the role of research in the practice of care and outcomes. Basic probability and statistics to understand research results and evaluations, and algorithmic methods for decision-making processes (Bayes theorem, decision trees, and materials issues). Study of decision, 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 decision-making software packages to familiarize students with current tools. Letter grading.

M229. Advanced Topics in Magnetic Resonance Imaging. (4) (Same as Physics and Biology in Medicine M250.) Lecture, four hours. Requisite: course M219. Designed for students interested in pursuing research related to development or translation of new magnetic resonance imaging (MRI) techniques. Basic tools and understanding of recent MRI developments that have had high impact on, involve novel pulse sequence design or image reconstructions, and enable imaging in ways that traditional methods do not. Criteria: how these technological advances impact the development and optimization of MRI methodology utilized in clinical settings.

C239B. Biomolecular Materials Science II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 100, 120, Life Sciences 2, 3, Physics 1A, 1B, 1C. Analysis of sensors based on measurements of fluctuating ionic conductance through artificial or protein nanopores. Physics of pore conductance. Applications to single molecule detection and DNA sequencing. Overview of current literature and technological applications. History and instrumentation of resistive pulse sensing, theory and instrumentation of electrical measurements in electrolytes, nanopore fabrication, ionic conductance through pores and GHK equation, patch clamp and single channel measurements and instrumentation, noise issues, protein engineering, molecular sensing, DNA sequencing, microengineering, and future directions of field. Concurrently scheduled with course C131. Letter grading.

M233A. Medtech Innovation I: Entrepreneurial Opportunities in Medical Technology. (4) (Same as Management M219.) Lecture, six hours; outside study, nine hours. Designed for graduate and professional students in engineering, dentistry, design, law, management, and medicine. Focus 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 medtech devices that increase quality of clinical care and result in improved outcomes in hospital systems. Introduction to intellectual property basics and various medtech business models. Letter grading.

M233B. Medtech Innovation II: Prototyping and New Venture Development. (4) (Same as Management M219.) Lecture, three hours; outside study, nine hours. Requisite: course M233A. Designed for graduate and professional students in engineering, dentistry, design, law, management, and medicine. Development of prototyping options for unmet clinical needs previously identified in course M233A. Steps necessary to commercialize viable medtech solutions. Exploration of concept selection, business plan development, Intellectual Property, filing, financing strategies, and device prototyping. Letter grading.

C239A. Biomolecular Materials Science I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Overview of chemical and physical foundations of biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different types of interactions that exist between biomolecules, such as van der Waals interactions, electrostatically modulated electrostatic interactions, hydrophobic interactions, hydrogen bonding, and solvent-mediated interactions, depletion interactions, molecular recognition, and others. Illustration of these ideas using examples from bioengineering and biomedical engineering. Students should be able to make simple calculations and estimates that allow them to engage broadly in bioengineering problems, such as those in drug and gene delivery and tissue engineering. Concurrently scheduled with course C131A. Letter grading.

C239B. Biomolecular Materials Science II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course C239B. Overview of chemical and physical foundations of biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different types of interactions that exist between biomolecules, with emphasis on nucleic acids, proteins, and lipids. Study of how biological and biomimetic structures are formed in ways that self-assemble and how these structures impart biological function. Illustration of these ideas using examples from bioengineering and biomedical engineering. Case study on current topics, including drug delivery, gene therapy, tissue regeneration, pathogenesis, and relation of self-assembly to disease states. May be taken independently for credit. Concurrently scheduled with course C130. Letter grading.

CM240. Introduction to Biomechanics. (4) (Same as Mechanical and Aerospace Engineering CM240.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mechanical and Aerospace Engineering CM200 or CM210. Focus on the science of movement of human body; skeletal adaptations 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 CM140. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4) (Same as Chemical Engineering CM245S.) Lecture, four hours; discussion, one hour; outside study, seven hours. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular and cellular biology, gene expression, directed mutagenesis and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genome and expression analysis, and microarrays. Genomics, gene therapy, and tissue engineering. Concurrently scheduled with course CM145. Letter grading.

C247. Applied Tissue Engineering: Clinical and Industrial Perspective. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: courses CM202, Chemistry 20A, 20B, 20L, Life Sciences 1 or 2. Overview of central topics of tissue engineering, with focus on how to build artificial tissues into regulated clinically viable products. Topics include biomasas selection, cell source, delivery methods, FDA approval processes, and physical chemistry and biology of hydrogels. Includes skin and artificial skin, bone and cartilage, blood vessels, neurotissue engineering, and liver, kidney, and other organs. Clinical and industrial perspectives of tissue engineering products. Manufacturing constraints, clinical limitations, and regulatory challenges in design and development of tissue-engineering devices. Concurrently scheduled with course C147. Letter grading.

M248. Introduction to Biological Imaging. (4) (Same as Pharmacology M248 and Physics and 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.

M250B. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Electrical and Computer Engineering M250B and Mechanical and Aerospace Engineering M280B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course M153. Advanced design and microfabrication processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Topics include deep ultraviolet, resist, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

M222. Microelectromechanical Systems (MEMS) Devices, Physics and Design. (4) (Same as Electrical and Computer Engineering M222 and Mechanical and Aerospace Engineering M282B.) 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.

C255. Fluid-Particle and Fluid-Structure Interactions in Microflows. (4) Lecture, four hours; laboratory, one hour; outside study, seven hours. Enforced requisites: course 110. Introduction to fluid mechanics equations, assumptions, and simplifications. Analytical framework for calculating simple flows and numerical methods to solve and gain intuition for complex flow systems. Forces on random and finite-inertia flows. Flows induced around particles with and without finite inertia and implications for particle-particle interactions. Secondary flows induced by structures and particle interactions and separations by fluid dynamic forces: field-flow fractionation, inertial focusing, structure-induced separations. Application concepts in internal biological flows and microfluidic devices. Students become sufficiently fluent with fluid mechanics vocabulary and techniques, design and model microfluidic systems to manipulate fluids, cells, and particles, and develop strong intuition for how fluid and particle behaviors behave in arbitrarily structured microchannels over range of Reynolds numbers. Concurrently scheduled with course C155. Letter grading.

M260. Neuroengineering. (4) (Same as Electrical and Computer Engineering M255 and Neuroscience M206.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 1B or 5C. Introduction to principles and techniques of bioelectricity and neural signal recording, measurement, and processing. Application topics include bioelectricity, electrophysiology (action potentials, local field potentials, EEG, ECoG), intracellular and extracellular recording techniques, and neural signal processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulus artifact removal), brain-computer interfaces, and brain stimulation, and prosthetics. Letter grading.


M263. Anatomy of Central Nervous System. (4) (Same as Neuroscience M203.) Lecture, 75 minutes; discussion/laboratory, two hours. Prior to first laboratory meeting, students must complete Bloodborne Pathogens Training course through UCLA Environmental Health and Safety. Study of anatomical locations 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 in studying brain dissections and overview of tools for MRI analysis. Letter grading.

C270. Energy-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Enforced requisites: Life Sciences 2, Physics 1C. Introduction to thera—
peutic and diagnostic use of energy delivery devices in medical and dental applications, with emphasis on understanding fundamental mechanisms underlying various types of energy-tissue interactions. Concurrently scheduled with course C170. Letter grading.

C270L. Introduction to Techniques in Studying Laser-Tissue Interactions. (2) Laboratory, four hours; outside study, two hours. Corequisite: course C270. Introduction to simulation and experimental techniques used in studying laser-tissue interactions. Topics include optical properties of tissues and devices, techniques for characterizing light propagation in tissue, measuring absorption spectra of tissue/tissue phantoms, making tissue phantoms, determination of optical properties of tissues, and tissue temperature distribution measurements. Concurrently scheduled with course C170L. Letter grading.


C275. Machine Learning and Data-Driven Modeling in Bioengineering. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Requisites: Civil Engineering M20 or Mechanical and Aerospace Engineering M20, Computer Science 31, Mathematics 228, 33A. Overview of foundational data analysis and machine learning methods in Bioengineering, focusing on how these techniques can be applied to interpret experimental observations. Topics include probabilistic, discriminative, cross-validation, analysis of variance, reproducible computational workflows, dimensionality reduction, regression, hidden Markov models, and clustering. Students gain theoretical and practical understanding of data analysis and machine learning methods relevant to bioengineering. Application of these methods to experimental data from bioengineering studies. Students become sufficiently familiar with these techniques to design studies incorporating such analyses, execute analysis, and work in teams using similar approaches, and ensure correctness of their results. Concurrently scheduled with course C175. Letter grading.

CM278. Introduction to Biomaterials. (4) Same as Materials Science CM280.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, and 20L, or Materials Science 1. Introduction to 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 fabrication methods, and biocompatibility. Concurrently scheduled with course CM178. Letter grading.

CM279. Biomaterials-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Requisite: course CM278. Lecture on the host response to biomaterials: vascular response, interface, and clotting, biocompatibility, animal models, inflammation, infection, extracellular matrix, cell adhesion, and role of mechanical forces. Concurrently scheduled with course C179. Letter grading.
Bioinformatics

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Qing Zhou, PhD (Statistics)

Scope and Objectives

Bioinformatics is defined broadly as the study of the inherent structure of biological information. It is the marriage of biology and the 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 understanding of 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. Within 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 genomic 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 Computation-Al 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 M220.) Seminar, two hours; discussion, two hours. Concrete examples of how biological questions about genomics data map to and are solved by methodologies from computational disciplines, including statistics, computer science, and mathematics. May be repeated for credit. S/U or letter grading.

M221. Introduction to Bioinformatics. (4) Formerly numbered M250.A.) (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. Designed for engineering students as well as students from biological sciences and medical school. Intro-duction to bioinformatics and methodologies, with emphasis on concepts and innovative computational tools and skills of analytical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. S/U or letter grading.

M222. Algorithms in Bioinformatics. (4) Formerly numbered M252.B.) (Same as Chemistry CM260B and Computer Science CM222.) 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. Course M221 is not requisite to M222. 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. Letter grading.

M223. Statistical Methods in Computational Biology. (4) Formerly numbered M271.) (Same as Biomathematics M271 and Statistics M254.) Lecture; three hours; discussion, one hour. Preparation: elementary probability concepts. Requisite: course M221 or Statistics 100A or 200A. Introduction to statistical methods developed and widely applied in several branches of computational biology, such as gene expression, sequence alignments, sequence databases, comparative genomics, and biological networks, with emphasis on understanding of basic statistical concepts and use of statistical inference to solve biological problems. Letter grading.

M224. Computational Genomics. (4) Formerly numbered M224.) (Same as Computer Science CM224 and Human Genetics 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 interdisciplinary research in genomics. 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 tools from statistics and computer science. Letter grading.

M225. Computational Methods in Genomics. (4) Formerly numbered M265.) (Same as Computer Science M225 and Human Genetics M265.) Lecture, two and one half hours; discussion, two and one half hours; outside study, seven hours. Introduction to
M226. Machine Learning in Bioinformatics. (4) (Same as Computer Science M226 and Human Genetics M226.) 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 109A. Familiarity with probability, statistics, 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 high-throughput genomic data. Topics include introduction to UNIX, Next Generation Sequence (NGS) data analysis, Chip-seq, BS-seq and RNA-seq, and others. S/U grading.

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 Sequence (NGS) data analysis, CHIP-seq, BS-seq and RNA-seq, and others. S/U grading.

275B. Applied Bioinformatics Lab for Biologists: Intermediate. (2) Laboratory, six hours (five weeks). Requisite: course 275A. Contemporary methods and techniques in bioinformatics are used to analyze high-throughput genomic data. Topics include Galaxy server, R, MATLAB, Python, and variant calling. S/U 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 in and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

307. 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.

396. Directed Individual Study or Research in Bioinformatics. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

997. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

998. 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.

194. Research Group Seminars: Biological Chemistry. (2) Seminar, two hours. 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. May be repeated for credit. P/NP grading.

199. Directed Research or Senior Project in Biological Chemistry. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cumulative 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 nonmedical 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. Human Biological Chemistry and Nutrition Laboratory. (3) Laboratory, four hours. Open to nonmedical 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.


220A-220B-220C. Research Laboratory Rotations. (2 to 8 each) Laboratory, two to eight hours. Students arrange apprenticeships in laboratories of one or more departmental faculty members and engage in research project under close faculty direction. Allows students to acquire in-depth laboratory experience in specific research areas and facilitates informed decision on their part in selection of thesis/research advisor. S/U grading.

M229S. Seminar: Current Topics in Bioinformatics. (4) (Same as Computer Science M229S and Human Genetics M229S.) Seminar, four hours; outside study, eight hours. Designed for graduate engineering students as well as students from biological sciences and medical school. Introduction to current topics in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary research in genetics and genomics. Topics include genome analysis, regulatory genomics, association analysis, association study design, isolated and admixed populations, population substructure, human structural variation, model organisms, and genomic technolosy. Computational techniques include those from statistics and computer science. May be repeated for credit with topic change. Letter grading.

M234. Genetic Control of Development. (4) (Same as Molecular, Cell, and Developmental Biology M234.) Lecture, four hours. Topics at forefront of molecular developmental biology, including problems in oogenesis and early embryo development, pattern formation, axis determination, nervous system development, cellular morphogenesis, and cell-cell and cell-matrix interactions. S/U or letter grading.

M237. Cellular and Molecular Basis of Disease. (4) (Same as Pathology M237.) Lecture, two hours; laboratory, two hours. Preparation: one course each in molecular biology, cell biology, and biocatalysis. 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.
254 / Biomedical Research

BIOLOGY
See Ecology and Evolutionary Biology

BIOMATHEMATICS
See Computational Medicine

BIOMEDICAL PHYSICS
See Physics and Biology in Medicine

BIOMEDICAL RESEARCH

Interdisciplinary Minor
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E-mail contact
Tracy L. Johnson, PhD, Chair

Faculty Committee

Faculty Committee
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Michael F. Carey, PhD (Biological Chemistry)
John J. Colicelli, PhD (Biological Chemistry)
Albert J. Courey, PhD (Chemistry and Biochemistry)
Soraya de Chadarevian, PhD (History, Society and Genetics)
Tracy L. Johnson, PhD (Molecular, Cell, and Developmental Biology)
Frank A. Laski, PhD (Molecular, Cell, and Developmental Biology)
Aldons J. Lusis, PhD (Human Genetics, Medicine, Microbiology, Immunology, and Molecular Genetics)
Kelsey C. Martin, MD, PhD (Biological Chemistry, Psychiatry and Biobehavioral Sciences)
Jeffery F. Miller, PhD (Microbiology, Immunology, and Molecular Genetics)
Caius G. Rudu, MD (Molecular and Medical Pharmacology)
Stephen T. Smale, PhD (Microbiology, Immunology, and Molecular Genetics)

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 biomedical research.

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 5HA (or an approved alternative course) and Molecular, Cell, 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, 179B, 180A, Neurobiology M169, 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 194A) 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 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

SHA, Biomedical Research: Concepts and Strategies (4 units) 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.
Seminar, three hours. Lim
many paths of discovery at UCLA. P/NP grading.
hour. Discussion of and critical thinking about topics
Seminar, one
Functional Genomics sponsored by Howard Hughes
informatics, functional genomics, electron micros
including techniques in genetics, model organism, bio
(Formerly
Upper-Division Courses
students. Basic training in biological research, in
Genomics. (6)
mental biology, bioinformatics, functional genomics.
ates who are committed to pursuing research. Ad
Research Center. May be repeated. P/NP grading.
Weng Kee Wong, PhD
Adjunct Professors
David Elashoff, PhD
David W. Gjertson, PhD
Martin L. Lee, PhD
James W. Sayre, DrPH
Adjunct Assistant Professors
Hilary J. Aralis, PhD
Angela P. Presson, PhD
Scope and Objectives
In recent years biostatistics has become one of the
most stimulating areas of applied statistics. The field
encompasses the methodology and theory of sta-
tistics as applied to problems in the life and health
sciences. Biostatisticians are trained in the skilled
application of statistical methods to the solution of
problems encountered in public health and medi-
cine. They collaborate with scientists in nearly every
area related to health and have made major contri-
butions to our understanding of AIDS, cancer, ge-
etics, bioinformatics, and immunology, as well as
other areas. Further, biostatisticians spend a consid-
erable amount of time developing 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 de-
grees 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 govern-
ment, 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 biostatisti-
cians; graduates have had little difficulty finding em-
ployment 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: one biological or physical sciences course. Suitable for juniors/seniors. Students who have completed courses in statistics may enroll only with consent of instructor. Not open for credit to students with credit for course 110A. Introduction to methods and concepts of statistical analysis. Sampling situations, with special attention to those occurring in biostatistics; distinction between descriptive statistics, tests of hypotheses, estimation, types of error, significance and confidence levels, sample size. 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 to prepare 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, very comfortable with mathematical and algebraic reasoning. Designed for students pursuing graduate degrees in biostatistics. Theory and practice of linear regression analysis and analysis of variance (ANOVA); S/U or letter grading.

200B. Methods in Biostatistics B. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: linear algebra. Required: course 200A. Designed for students pursuing graduate degrees in biostatistics. Theory and practice of linear regression analysis and analysis of variance (ANOVA); S/U or letter grading.

200C. Methods in Biostatistics C. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Pre-refered preparation: courses 200A, 200B, and previous coursework in linear algebra. Designed for students pursuing graduate degrees in biostatistics. Generalized linear models, design 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.

201A. Topics in Applied Regression. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Required: courses 100A 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 and related methods and how to properly interpret results. Heavy emphasis on practical application as opposed to theoretical development. S/U or letter grading.

201B. Topics in Applied Regression. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Required: course 201A. Further studies in multiple linear regression, including applied multiple regression models, regression diagnostics and model assessment, factor analysis, and use of 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.

202A-202B. Mathematical Statistics A, B. (4–4) Lecture, three hours; discussion, one hour. Designed primarily for students pursuing PhDs, MS, and PhD degrees in biostatistics for 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. Required: course 202A.

202C. Theory of Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Required: courses 200A, 200B, 202A, 202B, or equivalent, or consent of instructor. Mathematical underpinnings 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; 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.


210. Statistical Methods for Categorical Data. (4) (Same as Biomathematics M231.) Lecture, three hours; discussion, one hour. Required: course 100B or Statistics 100B. Statistical techniques for analysis of categorical data; discussion and illustration of their applications and limitations. S/U or letter grading.


M216. Special Topics: Supplemental Topics. (4) Lecture, three hours; discussion, one hour. Required: course 202B. Topics in biostatistics not covered in other courses. Letter grading.

230. Statistical Graphics. (4) Lecture, three hours; laboratory, one hour. Required: courses 200A, 200B. Strongly recommended: variety of other graduate coursework. Sample size and power analysis methods for common study designs, including comparison of means and proportions, ANOVA, time-to-event data, group sequential trials, linear regression, cluster randomized trials and multilevel data, with emphasis on designing randomized trials. Discussion also of multiple endpoints. S/U or letter grading.


233. Statistical Issues in Global Health. (4) Lecture, three hours. Required: course 200C. Recommended prerequisite or corequisite: course M215. Consideration of statistical issues in addressing contemporary global health challenges. Topics include statistical methods for analyzing public health 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 data, and 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 HIV/AIDS, cancer, 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 Biomathematics M234.) Lecture, three hours; laboratory, one hour. Required: course 200B or another substantial regression course. Bayesian approach to statistical inference, with emphasis on applications and concepts rather than mathematical theory. Topics include large sample Bayes inference from likelihoods, noninformative and conjugate priors, empirical Bayes, Bayesian analysis of 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. Requisites: courses 200C, 202B, or equivalent. Philosophical foundations, logical paradoxes, decision analysis, selection bias, confounding, ecological paradoaxes, historical development, potential outcomes. Rubin causal model, propensity scores, competing perspectives on path analysis and graphical/structural-equation models, experiments with noncompliance. Discussion of how causality is defined, decision making when causality is disputed, role of ethics in decision making. S/U or letter grading.

M236. Longitudinal Data. (4) Same as Biomathematics M206.) Lecture, three hours; laboratory, one hour. Requisites: course 200B or another substantial regression course. Analysis of continuous responses for which multivariate normal model may be assumed. Students will have experience building a longitudinal 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.

M237. Applied Genetic Modeling. (4) Same as Biomathematics M207B and Human Genetics M207B.) Lecture, three hours; laboratory, one hour. Requisites: courses 200B, 202B (may be taken concurrently) or equivalent. Covers basic genetic concepts (prior knowledge of human genetics not required). Topics include statistical methods underlying genetic analysis of both quantitative and qualitative traits. The laboratory, a 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 Biomathematics M284.) Lecture, three hours; discussion, one hour. Requisite: course 200B. Introductory material on design and analysis of clinical trials, including clinical research methods for early and late randomization trials. S/U or letter grading.

M239. Mathematical and Statistical Phylogenetics. (4) Same as Biomathematics M211 and Human Genetics M211.) Lecture, three hours; laboratory, one hour. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolution, tree reconstruction methods, study of viral evolution, phylogeny and related coalescent approaches. Experiments include computational modeling and 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 spatially referenced datasets, with emphasis on complex spatial structures. Laboratory activities focus on health. Statistical theory and foundations for carrying out principle and scientifically rigorous inference on spatially referenced datasets and computational methods and algorithms for executing statistical modeling in practice. Practical examples and applications demonstrated using open-source statistical software environment R and datasets from 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) Formerly numbered 240.) Seminar, three hours. Introductions 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. Discussion of journal format and submission forms and refereeing process to help students make progress on their master’s reports. Letter grading.


250A. Linear Statistical Models. (4) Lecture, three hours; discussion, one hour. Recommended preparation: statistical theory and linear algebra. Designed for students pursuing graduate degrees in biostatistics. 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.

250B. Linear Statistical Models. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B, 200C, 250A. 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, including linear mixed models and topics that may include theory and tests for various types of model specifications, such as heteroscedasticity and outliers. Other selected topics may include ridge regression, Bayesian estimation in linear models, REML, prediction, and model selection issues. Some data analysis, instructions for STATA provided. Letter grading.


255A. Advanced Probability and Statistics. (4) Formerly numbered 255.) Lecture, three hours; discussion, one hour. Requisites: course 202A or equivalent, Mathematics 115A, 115B, 115C, or consent of instructor. Mathematics 131A. Survey of probability theory, with special emphasis on applications to biostatistics. Topics include probability spaces and random variables, generating functions, conditioning, discrete-time martingales, solutions 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 possession of eligible 131A. Survey of advanced topics in probability and mathematical statistics, with emphasis on applications to biostatistics. Topics include laws of large numbers, central limit theorems, basic concepts from stochastic processes, and applications to large sample theory in biostatistics. S/U or letter grading.


272. Theoretical Genetic Modeling. (4) Same as Biomathematics 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 sequence analysis, and molecular phylogeny. S/U or letter grading.


275. Advanced Survival Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 250A, 250B, 255A. Time-to-event data arise in many fields, such as medicine, reliability theory, demography, sociology, economics, and astronomy. Overview of common methods and techniques 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; laboratory, one hour. Requisites: Statistics 200A, 200B. Recommended: course 213. Theory and application of 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.


278. Optimal Design Theory and Application. (4) Lecture, three hours; laboratory, one hour. Prentice teachers to discuss both substance of curriculum and appropriate approaches to teaching, learning and evaluation. May be repeated for credit. S/U grading.

285. Advanced Topics: Recent Developments. (4) Lecture, three hours; discussion, one hour. Advanced topics and developments, e.g. topics not covered in Biostatistics M210 through 219 or 276 or in other courses. Possible topics include time-series analysis, classification procedures, correspondence analysis, etc. S/U 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 medical and health-related fields. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. Apprentices meet with faculty and other prentice 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, two hours; laboratory, two hours. Requisites: courses 100A, 100B (100B may be taken concurrently). 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 hypothesis. S/U grading.

406. Applied Multivariate Biostatistics. (4) Lecture, three hours; laboratory, one hour. Preparation: at least two upper-division research courses. Requisite: courses 200A, 200B. Use of principal components, factor analysis, discriminant function analysis, logistic regression, and canonical correlation in biomedical data analysis, S/U (optional only 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 antitumor 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 only 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 bioassy and other assay techniques (e.g., ELISAs and FACs analysis), quality control techniques, and pharmacokinetic and pharmacodynamic modeling. S/U or letter grading.

414. Principles of Sampling. (4) Lecture, three hours; discussion, one hour. Requisites: course 100B, Epidemiology 100. Statistical aspects of design and implementation of sample survey. Techniques for analysis of data, including estimates and standard errors. Avoiding improper use of survey data. 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 advisor and 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 problems. 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 problems and 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.

CHEMICAL AND BIOMOLECULAR ENGINEERING

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Yoram Cohen, PhD
James F. Davis, PhD
Vijay K. Dhir, PhD
Aineza Khademhosseini, Phd
Yufeng Lu, PhD
Vasilios I. Manousiouthakis, PhD
Harold G. Monbouquette, PhD
Stanley J. Osher, PhD
Philippe Saulet, PhD
Yi Yang, PhD

Professors Emeriti
Robert F. Hicks, PhD
Eldon L. Knuth, PhD
James C. Liao, PhD (Ralph M. Parsons Foundation Professor Emeritus of Chemical Engineering)
Ken Nobe, PhD
Selim M. Senkan, PhD
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Nasim Annabi, PhD
Carissa N. Eisler, PhD
Carlos G. Morales-Guio, PhD
Junyoung Park, PhD
Dante S. Simonetti, PhD
Samanvaya Srivastava, PhD

Scope and Objectives

The Department of Chemical and Biomedical 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 metabolic 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, with consideration of environmental, social, and ethical issues, 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 BS

Capstone Major

The Chemical Engineering curricula offer a high-quality, professionally oriented education in modern chemical engineering. The biomedical engineering, biomolecular engineering, environmental engineering, and semiconductor manufacturing engineering options provide students with an opportunity for exposure to a subfield of chemical and biomolecular engineering. In all cases, balance is sought between engineering science and practice.

Learning Outcomes

The Chemical Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, physics, chemistry, biology, and chemical and biological engineering, especially to integration of molecular- to micro-scale information into
Biomolecular 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 IA, 1B, 1C, 4AL.

The Major

Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 104A, 104D, 107, 109, C115, C125, CM145; 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 biomolecular elective course (4 units) from Bioengineering C105, C183, Chemical Engineering C112, Chemistry and Biochemistry C105, 153A, or C159 (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, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics IA, 1B, 1C, 4AL.

The Major

Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 104A, 104D, 107, 109, C115, C125, CM145; 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, CM144, 115, 116, 118, 119, 121, 125, 128, 135, 140).

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, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics IA, 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 one biomedical elective course (4 units) from Bioengineering C105, C183, Chemical Engineering C112, Chemistry and Biochemistry C105, 153A, or C159 (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.
Upper-Division Courses

100. Fundamentals of Chemical and Biomolecular Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20B, 20L (not enforced), 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 requisite: course 101B. Introduction to analysis of mass transfer in systems of interest to chemical engineering practice. Fundamentals of mass species and momentum conservation. Letter grading.  

102A. Thermodynamics I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 102B. Thermodynamics of ideal and nonideal mixtures. Thermodynamics of ideal and nonideal processes and other special conditions. Concurrently scheduled with course CM214. Letter grading.  


103. Separation Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 100, 101C, 102B. Fundamentals of chemical kinetics and catalysis. Introduction to analysis and design of homogeneous and heterogeneous chemical reactors. Letter grading.  

104A. Chemical and Biomolecular Engineering Laboratory I. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: course 100. Corequisite: course 101B. Recommended: Prior 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, single 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, concisely, and effectively; and choice and punctuation in multicultural engineering environment and of following required formatting. Letter grading.  

104B. Chemical and Biomolecular Engineering Laboratory II. (8) Lecture, four hours; laboratory, eight hours; outside study, four hours; other, two hours. Enforced requisites: courses 101C, 103, 104A. Course consists of four experiments in chemical engineering unit operations, each of two weeks duration. Students present their results both written and orally. Written report includes sections on theory, experimental procedures, scale-up and process design, and error analysis. Letter grading.  

104C. Semiconductor Processing. (3) Lecture, four hours; outside study, five hours. Enforced requisite: course 101C. Enforced corequisite: course 104CL. Basic principles of semiconductor device operations, including fabrication and characterization of semiconductor devices. Investigation of processing steps used to make CMOS devices, including wafer cleaning, doping, thermal oxidation, chemical vapor deposition, plasma etching, metalization, and statistical design of experiments and error analysis. Presentation of student results in both written and oral format. Letter grading.  

104CL. Semiconductor Processing Laboratory. (3) Laboratory, four hours; outside study, five hours. Enforced requisite: course 101C. Enforced corequisite: course 104C. Series of experiments that emphasize basic problem-solving principles of semiconductor device operations, including fabrication and characterization of semiconductor devices. Investigation of processing steps used to make CMOS devices, including wafer cleaning, doping, thermal oxidation, chemical vapor deposition, plasma etching, metalization, and statistical design of experiments and error analysis. Letter grading.  

104D. Molecular Biotechnology Laboratory: From Gene to Protein. (8) Lecture, two hours; laboratory, eight hours; outside study, eight hours. Enforced requisite: courses 101C, 1252. Cloning of protein-coding gene into plasmid, transformation of construct into E. coli, production of gene product in bioreactor, downstream processing of bioreactor broth, purification of protein, and characterization of purified protein. Letter grading.  

106. Chemical Reaction Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 100, 101C, 102B. Fundamentals of chemical kinetics and catalysis. Introduction to analysis and design of homogeneous and heterogeneous chemical reactors. Letter grading.  


108A. Process Economics and Analysis. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 101C, 1252, 104A, 106 (or C115). Integration of chemical engineering fundamentals such as transport phenomena, thermodynamics, separation operations, and reactor design with economic and chemical principles for purpose of designing chemical processes and evaluating alternative letter grading.  

108B. Chemical Process Computer-Aided Design and Analysis. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 103 (or C125), 106 (or C115), 108A. Civil and Environmental Engineering M20 (or Mechanical and Aerospace Engineering M20). Introduction to application of some mathematical and computing methods to chemical engineering design problems; use of simulation programs as automated method of performing steady state material and energy balance calculations. Letter grading.  

109. Numerical and Mathematical Methods in Chemical and Biological Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 102B. Numerical methods for computation 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 (computational environment) to write programs based on numerical methods to solve various problems arising in chemical engineering.  

110. Intermediate Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 102B. Principles and engineering applications of statistical and phenomenological thermodynamics. Derivation of thermodynamic functions in terms of simple molecular models and spectroscopic data; nonideal gases; phase transitions and adsorption; nonequilibrium thermodynamics and internal energy. Letter grading.  

C111. Cryogenics and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 102A, 102B (or Materials Science 130). Fundamentals of cryogenics and cryogenic science pertaining to industrial low-temperature processes. Basic approaches to analysis of cryofluids and envelopes needed for operation of cryogenic systems; low-temperature materials and cryogenic systems and other special conditions. Concurrently scheduled with course C211. Letter grading.  

C112. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 102A, 102B. Introduction to analysis and design of homogeneous and heterogeneous chemical reactors. Letter grading.  

CM114. Electrochemical Processes. (4) (Formerly numbered C114.) (Same as Materials Science CM163.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 102B, Mechanical Engineering M20, or Materials Science 130). Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes. Primary emphasis on fundamental approach to analyzing electrochemical processes. Specific topics include electrochemical reactions on metal and semiconductor surfaces, electrolysis, electrodeposition, electroless deposition, electroanalyzer, and relationship of air quality to emission sources. Links air pollution to multimedia environmental assessment. Letter grading.  

CM114. Electrochemical Processes. (4) (Formerly numbered C114.) (Same as Materials Science CM163.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 102B, Mechanical Engineering M20, or Materials Science 130). Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes. Primary emphasis on fundamental approach to analyzing electrochemical processes. Specific topics include electrochemical reactions on metal and semiconductor surfaces, electrolysis, electrodeposition, electroless deposition, electroanalyzer, and relationship of air quality to emission sources. Links air pollution to multimedia environmental assessment. 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, transport phenomena, 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, particularly catalytic surface and thin films for solid-state electronic devices. Topics include classification of crystalline and surface materials, 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 lasers. May be concurrently scheduled with course C216. Letter grading.


C222. Life Sciences. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101A, 101C, 103. Preparation of recombinant protein and nucleic acid with emphasis on separations at molecular and microscale, and molecular/angstrom scale with membranes. Relationship between structure/morphology of dense and porous membranes and their separation character- istics. Organic and biological membranes. Membrane processes. Concurrently scheduled with course C221. Letter grading.

C224. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 101A, Chemistry 30A. Formation of polymers, criteria for selecting reaction scheme, polymer technologies, techniques of separation, characterization, Mechanical properties. Rheology of macromolecules, polymer processing, Diffusion in polymeric systems. Polymers in biomedical applications and in microelectronics. Concurrently scheduled with course C112. Letter grading.

C212. Electrochemical Processes. (4) Formerly numbered C214. (Same as Materials Science and Engineering 262.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101A, Chemistry 30A. Formation of polymers, criteria for selecting reaction scheme, polymer technologies, techniques of separation, characterization, Mechanical properties. Rheology of macromolecules, polymer processing, Diffusion in polymeric systems. Polymers in biomedical applications and in microelectronics. Concurrently scheduled with course C114. Letter grading.

C215. 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 eco- nomic analysis of biological reactors. May be concurrently scheduled with course C211. Letter grading.

C216. Advanced Chemical Reaction Engineering. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisites: courses 101C, 106. Principles of chemical re- action analysis and design. Particular emphasis on sim-ultaneous effects of chemical reaction and mass transfer on noncatalytic and catalytic reactions in fixed and fluidized beds. Letter grading.

C211. Cryogenics and Low-Temperature Process- es. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: cryogenics and cryoengineering science pertaining to industrial low-temperature processes. Basic approaches to analysis of cryofluids and cryogenic equipment; operation of cryogenic systems; low-temperature behavior of matter, optimization of cryosystems and other special conditions. Concurrently scheduled with course C111. Letter grading.

C228. Hydrogen. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 102B. Phenomenological and statistical thermodynamics of chemical and physical systems with engineering applications. Presentation of role of atomistic and molecular approaches and intermolecular forces in interpretation of thermodynamic properties of gases, liquids, solids, and plasmas. Letter grading.


CM145. Molecular Biotechnology for Engineers. (4) (Same as Bioengineering CM145.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 45. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, biotechnology for design of selective membranes and models of membrane transport. Selected examples from various fields/applications, including biotechnology, microelectronics, mechanical processes, sensors, and biomedical devices. Concurrently scheduled with course C224. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Bioengineering M153, Mechanical and Aerospace Engineering M153B,) Lecture, three hours; laboratory; four hours; outside study, five hours. Topics include nanotechnology, surface science, physical electro- 1A, 1B, 1C, 4AL, 4BL. Introduction to general manu- facturing methods, mechanisms, constrains, and mi- crofabrication and nanofabrication. Focus on con- cepts of electrochemical fabrication, electrochemi- cal 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. Hands-on experience for fabricating microstructures and nanostuctures in modern cleanroom environment. Letter grading.

188. Special Courses in Chemical Engineering. (4) Seminar, four hours; outside study, eight hours. Selected 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 for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Chemical Engi- neering. (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 for credit with topic or instructor change. Letter grading.

200. Advanced Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 102B. Phenomenological and statistical thermodynamics of chemical and physical systems with engineering applications. Presentation of role of atomistic and molecular approaches and intermolecular forces in interpretation of thermodynamic properties of gases, liquids, solids, and plasmas. Letter grading.


212. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 101A, Chemistry 30A. Formation of polymers, criteria for selecting reaction scheme, polymer technologies, techniques of separation, characterization, Mechanical properties. Rheology of macromolecules, polymer process engineering. Diffusion in polymeric systems. Polymers in biomedical applications and in microelectronics. Concurrently scheduled with course C112. Letter grading.

261. Surface and Interface Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to surfaces and interfaces of engineering materials, particularly catalytic 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 and interfaces. Examination of engineering applications, including catalytic surfaces, interfaces in microelectronics, and solid-state lasers. May be concurrently scheduled with course C216. Letter grading.

271. Electrochemical Engineering. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course C114. Transport phenomena in electrochemical sys- tems; relationships between molecular transport, con-
Lecture, four hours; discussion, one hour; preparation, two hours; outside study, four hours. Recommended requisites courses 101C, 102B. Pollutant sources, estimation of source releases, waste minimization, transport and fate of chemical pollutants in environment, intermedia transfers of pollutants, multimedia modeling of chemicals in environment, exposure assessment and fundamentals of risk assessment, risk reduction strategies. Concurrently scheduled with course C124. Letter grading.


220. Advanced Mass Transfer. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 101C. Advanced treatment of mass transfer, with applications to industrial separation processes, gas cleaning, pollution control, and evaporation. Concurrently scheduled with course C132A. Letter grading.

C221. Membrane Science and Technology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 101A, 101C, 103. Fundamentals of membrane 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 solute rejection). Examination of various fields/applications, including biotechnology, microelectronics, chemical processes, sensors, and biomedical devices. Concurrently scheduled with course C121. Letter grading.


C225. Biosensors and Bioprocess Engineering. (4) Lecture, four hours; outside study, seven hours. Enforced corequisite: course 101C. Separation strategies, unit operations, and economic factors used to design novel bioprocesses and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are products of biological reactors. Concurrently scheduled with course C125. Letter grading.

C227. Synthetic Biology for Biofuels. (4) Same as Chemistry CM227. Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Chemistry 153A. Engineering microorganisms for complex phenotype is common goal of metabolic engineering and synthetic biology. Production 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 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: Chemistry 20A. Electronic, physical, and chemical properties of hydrogen. Various methods of production, including production through methane steam reforming, electrolysis, and thermochemical cycles. Description in depth of several uses of hydrogen, including hydrogen storage and fuel cells. Concurrently scheduled with course C128. Letter grading.


C231. Molecular Dynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 106 or 110. Analysis and design of molecular-beam systems. Molecular-beam sampling of reactive mixtures in combustion; studies of gas-surface interactions, including energy accommodation and heterogenous reactions. Applications to air pollution control and to catalysis. Letter grading.


C233. Frontiers in Biotechnology. (2) Lecture, one hour; outside study, eight hours. Recommended requisite: course Life Sciences 3, Integration of science and business in biotechnology. Academic research leading to licensing and founding of companies that turn research breakthroughs into marketable products. Focus on biotechnology companies, industry, government, and investment. Discussion of emerging areas of biotechnology from a combination of science, engineering, and business points of view. S/U or letter grading.

C234. Plasma Chemistry and Engineering. (4) Lecture, four hours; outside study, eight hours. Recommended requisite for graduate chemistry or engineering students. Application of chemistry, physics, and engineering principles to design and operation of plasma and ion-beam reactors used in etching, deposition, oxidation, and cleaning of materials. Examination of atomic, molecular, and ionic phenomena involved in plasma and ion-beam processing of semiconductors, etc. Letter grading.

C235. Advanced Process Control. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 107. Introduction to modern control and process control. Lyapunov stability for autonomous nonlinear systems including control, two inputs to state stability, interconnected systems, and small gain theorems. Design of nonlinear and robust controllers for various classes of nonlinear systems, model predictive control of linear and nonlinear systems, advanced techniques of tuning for model controllers, and introduction to control of distributed parameter systems. Concurrently scheduled with course C135. Letter grading.

C236. Chemical Vapor Deposition. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 210, 216. 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.


C245. Molecular Biotechnology for Engineers. (4) Same as Bioengineering CM245. Lecture, four hours; discussion, one hour; outside study, seven hours. Selected topics in molecular biology that form foundations of biotechnology and biomedical industry. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, directed mutagenesis and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genomics and bioinformatics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM145. Letter grading.


C250. Computer-Aided Chemical Process Design. (4) Lecture, four hours; outside study, eight hours. Requisite: course 108B. Application of optimization methods in chemical process design; computer aids in process engineering; process modeling; systematic approach to process synthesis; optimal design and operation of large-scale chemical processing systems. Letter grading.


polymeric liquids and dispersed systems. Applications in viscometry, polymer processing, biochemistry, oil recovery, and drag reduction. Letter grading.

270. Principles of Reaction and Transport Phenomena. (4) Lecture, four hours; laboratory, eight hours. Fundamentals in transport phenomena, chemical reaction engineering, and process dynamics at molecular level. Topics include Boltzmann equation, microscopic chemical kinetics, transition state theory, and statistical analysis. Examination of engineering applications related to state-of-art research areas in chemical engineering. Letter grading.

270R. Advanced Research in Semiconductor Manufacturing. (6) Laboratory, nine hours; outside study, nine hours. Directed toward design and development of new semiconductor manufacturing processes. 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. Requisite: Electrical and Computer Engineering 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, solution forms, Cayley-Hamilton theorem, Jordan form; solution of state equations; stability, controllability, observability, realizability, and minimality. 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. Requisite: Electrical and Computer Engineering 240B or Mechanical and Aerospace Engineering 270B. Applications of variational methods, Pontryagin maximum principle, Hamilton-Jacobi-Bellman equation (dynamic programming) to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. 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, convergency theory in function spaces), (2) nonlinear model reduction (linear and nonlinear Galerkin methods, singular perturbation, orthogonal expansions), (3) linear and robust control of nonlinear hyperbolic and parabolic partial differential equations (PDEs), (4) applications to transport-process reactions. Letter grading.


290. Special Topics. (2 to 4) Seminar, four hours. Requisites for each offering announced in advance by department. Advanced and current study of one or more aspects of chemical engineering, such as chemical process dynamics and control, fuel cells and batteries, membrane transport, advanced chemical engineering: analysis, polymers, optimization in chemical processes. May be repeated for credit with topic change. Letter grading.

M297. Seminar: Systems, Dynamics, and Control Topics. (2) (Same as Electrical and Computer Engineering M248S and Mechanical and Aerospace Engineering M299A.) 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.

298A-298Z. Research Seminars. (2 to 4) Seminar, to be arranged. Requisites for each offering announced in advance by department. Lectures, discussions, student presentations, and projects in areas of current interest. May be repeated for credit. S/U grading.

299. Departmental Seminar. (2) Seminar, two hours. Limited to graduate chemical engineering students. Seminars by leading academic and industrial chemical engineers on development or application of recent technological advances in discipline. 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 Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours; one-half intensive training at beginning of Fall Quarter. Limited to graduate chemical engineering students. Required of all new teaching assistants. Special seminar on communicating chemical engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of grading, advising, and rapport with students. S/U grading.

495B. Teaching with Technology for Teaching Assistants. (2) Seminar, two hours; outside study, four hours. Limited to graduate chemical engineering students. Designed for teaching assistants interested in learning more about effective use of technology and ways to incorporate that technology into their classroom. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate chemical engineering students. Supervised investigation of advanced technological advances in discipline. May be repeated for credit. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate chemical engineering students in MS semiconductor manufacturing option. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate chemical engineering students in MS semiconductor manufacturing option. Reading and preparation for PhD comprehensive examination. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate chemical engineering students in MS semiconductor manufacturing option. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examination. (2 to 16) Seminar, to be arranged. Limited to graduate chemical engineering students. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate chemical 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 16) Tutorial, to be arranged. Limited to graduate chemical engineering students. Supervised independent research for MS candidates, including thesis proposal and presentation. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate chemical engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

Faculty Roster

Professors
Anastasia N. Alexandrova, PhD
Anita M. Andrio, PhD, in Residence
David B. Benson, PhD
James U. Bowie, PhD
Robin F. Bruinsma, PhD
Guillaume F. Chanfreau, PhD
Catherine F. Clarke, PhD
Steven C. Clarke, PhD
Robert T. Clubb, PhD
Albert J. Coorey, PhD
Timothy J. Deming, PhD
Paula L. Diaconescu, PhD
Xiangfeng Duan, PhD
David S. Eisenberg, DPhil
Jul F. Feigon, PhD (Christopher S. Foote Term Professor)
Peter M. Felker, PhD
Miguel A. Garcia-Baribay, PhD
Neil K. Garg, PhD (Kenneth N. Trueblood Endowed Professor of Chemistry and Biochemistry)
Robin L. Garrell, PhD
William M. Gelbart, PhD
James K. Gimzewski, PhD
James W. Gober, PhD
Patrick G. Harran, PhD (J.D. and J. M. Crum Professor of Organic Chemistry)
Wayne L. Hubbell, PhD (Jules Stein Professor of Ophthalmic Chemistry)
Michael E. Jung, PhD
Richard S. Kaner, PhD (Dr. Myung Ki Hong Endowed Professor of Materials Innovation)
Sarah H. Tolbert, PhD
Yi Tang, PhD
Benjamin J. Schwartz, PhD
Shimon Weiss, DSc (Dean M. Willard Professor of Chemistry)
Gerard C.L. Wong, PhD
Todd O. Yeates, PhD
Jeffrey I. Zink, PhD

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Chemistry and Biochemistry / 263

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Department e-mail

Catherine F. Clarke, PhD, Chair
Chemistry is concerned with the composition, scope, and objectives of substances in relation to their structures and the kinds of energy changes that accompany these reactions. The Department of Chemistry and Biochemistry is organized in four interrelated 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.

### 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 chemistry 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 chemical 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), 48L.

The Major

Required: Chemistry and Biochemistry 110A, either 110B or C113B, 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), 48L.

The Major

Required: Chemistry and Biochemistry 110A, 110B, 113A, C113B, 114 (or 114H), 153A, 171, 172; one additional upper-division chemistry course, electrical engineering, or physics laboratory course; and three elective upper-division or graduate courses approved by the physical chemistry advisor. 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 gain 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 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 controlling in interpreting experimental data
- 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

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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:

- Knowledge of how to handle chemicals in a safe manner following OSHA-approved regulations and procedures
- Ability to perform and teach basic laboratory techniques and procedures
- Familiarity with the roles of DNA and protein sequence information in inferring biological function and common ancestry
- Understanding of the roles of hypotheses and models in investigating scientific ideas
- Understanding of the critical importance of controlling in interpreting experimental data
- Knowledge of how to use information resources to search and access safety databases

Chemistry/Materials Science BS

The Chemistry/Materials Science major is designed for students who are interested in chemistry with an emphasis on material properties 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, electrochromics, 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, Mathemat-
structures, VGEPR 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. Enforced prerequisite: course 14A or 30A with grade of C– or better. Corequisite: Life Sciences 30B or Mathematics 3A or 31A or score of 46 or better on the Placement Diagnostic Test. Not open to students with credit for course 14A or 20A. Study of foundations of chemistry; Discussion of foundations of quantum mechanics and reaction principles. Corequisites can be used to understand atomic and molecular structure and properties; how molecules interact; and properties of inorganic, organic, and biological acids, bases, and salts. Biological, environmental, and socially-relevant examples are used to illustrate central role that chemistry plays in our world. Emphasis on developing problem-solving skills and collaborative interaction and learning.

14B. General Chemistry for Life Scientists II. (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 14A or 20A with grade of C– or better. Corequisite or corequire: Life Sciences 30B or Mathematics 3A with grade of C– or better. Not open to students with credit for course 20B or 30A. Chemical equilibria in gases and liquids; acid–base equilibrium; phase changes; thermochemistry; first, second, and third thermodynamic laws; free energy changes; electrochemistry and its role as an energy source; chemical kinetics, including catalysis, reaction mechanisms, and enzymes; use of molecular modeling software to illustrate molecular structures and their relative energies. P/NP or letter grading.

14BL. General and Organic Chemistry Laboratory I. (3) Lecture, one hour; laboratory, three hours. Enforced prerequisite: course 14AE with grade of C– or better. Corequisites: Life Sciences 30B or Mathematics 3B or 31B 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 properties, synthesis, and reactions of organic molecules. Introduction to small molecule structure through resonance, stereochemistry, conjugation, and aromaticity; spectroscopy (NMR, IR, and mass spectrometry); introduction to electronic spectra and physical and chemical properties; survey of supramolecular structure. P/NP or letter grading.

14C. Structure of Organic Molecules. (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: 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 supramolecular structure. P/NP or letter grading.

14CL. General and Organic Chemistry Laboratory II. (4) Lecture, one hour; laboratory, six hours. Enforced prerequisites: courses 14B and 14BL with grades of C– or better. Not open to students with credit for course 20B. Synthesis and analysis of compounds; purification by extraction, chromatography, recrystallization, and sublimation; characterization by mass spectroscopy, UV, NMR, and IR spectroscopy; optical activity; electrolytes, pH titration. P/NP or letter grading.

14D. Organic Reactions and Pharmaceuticals. (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: grade of C– or better in course 14C. Chain reactions, nucleophilic and electrophilic substitutions and additions; electrophilic aromatic substitution; cycloaddition; and nuclear, arylation, and aryne chemistry. P/NP or letter grading.

14E. Chemical Principles. (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 14A or 30A with grade of C– or better. Third term of organic chemistry for Chemistry, Biochemistry, and engineering majors. Chemistry of enolates, enamines, carbonyl compounds, and amines. Molecular orbital theory and conjugated pi systems; UV/vis spectroscopy. Aromatic chemistry, reactions, and stereochemistry: Heterocycles, pericyclic reactions, pharmaceuticals, and official drugs. P/NP or letter grading.

14F. Lecture or lower division course. (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 diverse educational and professional contexts. P/NP or letter grading.

20A. Chemical Structure. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one half years of high school mathematics. Recommended preparation: high school physics. Enforced corequisite: Mathematics 31A. First term of general chemistry. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bonding, molecular spectroscopy, and resonance structure. 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 or equivalent background. Enforced corequisites: Mathematics 31B. Honors course parallel to course 20A. P/NP or letter grading.

20BH. Chemical Energetics and Change (Honors). (4) Lecture, three hours; discussion, one hour. Enforced prerequisites: course 20A and Mathematics 31A with grades of C– or better. Enforced corequisite: Mathematics 31B. Second term of general chemistry. Inter-molecular forces and organization, phase behavior, chemical thermodynamics, solutions, equilibria, reaction rates and laws. P/NP or letter grading.

20BL. General Chemistry Laboratory. (3) Lecture, one hour; laboratory, six hours. Enforced prerequisite: course 20A with grade of C– or better. Enforced corequisite: course 20B. Not open to students with credit for course 20B. Laboratory practice. P/NP or letter grading.

20CL. Organic Chemistry Laboratory II. (4) Lecture, one hour; laboratory, six hours. Enforced prerequisites: courses 20B (or 20BH), 20L, and 30A (or 30AH), with grades of C– or better. Qualitative and quantitative analysis of organic products. Introduction to analysis of organic syntheses and structures. P/NP or letter grading.


30AL. General Chemistry Laboratory II. (4) Lecture, one hour; laboratory, six hours. Enforced prerequisites: grades of C– or better in courses 20A (or 20BH), 20L, and 30A (or 30AH), with grades of C– or better. Qualitative and quantitative analysis of organic syntheses and compounds, kinetics, separations, and spectroscopy. P/NP or letter grading.


30BL. Organic Chemistry Laboratory III. (3) Lecture, one hour; laboratory, four hours. Requirements: courses 30A (or 30AH), 30AL and 30B, with grades of C– or better. Basic experimental techniques of inorganic syn-thesis (performing reactions, monitoring reactions, and conducting purifications) and spectroscopy (IR, NMR, mass spectrometry). Synthesis of known organic molecules on microscale with focus on social applications. 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 through. Introduction to beginning course in science in sun by Janssen in 1868 (using newly developed field of spectroscopy). Discovery 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 cis-platin 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 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 course. Individually designed course. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

89K. Special Courses in Chemistry, (1 to 4) Tutorial, to be arranged. May be repeated for maximum of 8 units. P/NP or letter grading.

98A. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in chemistry and biochemistry 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 collaborative learning environment. May be repeated four times, but only 1 unit may be applied toward graduation. P/NP grading.

98B. 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 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.


98X. PEERS Collaborative Learning Workshops for Physical Sciences Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in chemistry and biochemistry 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 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 en...
Upper-Division Courses

C100. Genomics and Computational Biology. (5) Lecture, four hours. Introduction for biochemistry students of technologies and experimental data of genomics, as well as computational tools for analyzing them. Biochemistry and molecular biology discuss anatomy, component parts, the genome 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 targets in clinical trials), in silico analysis, new technologies such as sequencing, microarrays, mass spec, and robotics to have biologists incredible new 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 C200. P/NP or letter grading.


C105. Introduction to Chemistry of Biology. (4) Lecture, three hours; discussion, one hour. Requisite: course 153A with grade of C– or better. Introduction to chemical biology. Topics include computational chemical biology, utility of synthesis in biochemical research, properties, and reactivity (emotional approaches of a polyatomic molecule) containing carbon bonded to elements selected from main group metals, molecular, and transition metals, including organic complexes and metal carbonyls, among others.

C107. Organometallic Chemistry. (4) Lecture/discussion, three hours. Enforced requisite or corequisite: course 172. Survey of synthesis, structure, and reactivity (emotional approaches of a polyatomic molecule) containing carbon bonded to elements selected from main group metals, molecular, and transition metals, including organic complexes and metal carbonyls, among others. Syllabus includes complex types and their syntheses. Concurrently scheduled with course C207. P/NP or letter grading.

C108. Mass Spectrometry for Chemists and Biochemists. (2) Lecture, one hour; laboratory, four hours. Requisite: course 153A. Introduction to principles and practice of organic and inorganic mass spectrometry. Topics include EI, CI, ICPSM, GC/MS, LC/MS, ESI, MALDI, NMR, proton identification, and proteomics. Concurrently scheduled with course C208. P/NP or letter grading.

110A. Physical Chemistry: Chemical Thermodynamics. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: courses 20B, Mathematics 32A or 3C (for life sciences majors), Physics 1A, 1B, and 1C (may be taken concurrently), or 1A, 1BH, and 1CH (may be taken concurrently), or 5A, 5B, and 5C (may be taken concurrently), or 6A, 6B, and 6C (may be taken concurrently). Fundamentals of thermodynamics, chemical and phase equilibria, thermodynamics of solutions, electrochemistry. P/NP or letter grading.


113A. Physical Chemistry: Introduction to Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: course 20B, Mathematics 32A, 32B, 33A, Physics 1A, 1B, and 1C, or 1A, 1BH, and 1CH, or 5A, 5B, and 5C, or 6A, 6B, and 6C, with grades of C– or better. Use of the Schrödinger equation, potential functions, and solution of the Schrödinger equation for simple systems.


114. Physical Chemistry Laboratory. (8) Lecture, two hours; laboratory, eight hours. Enforced requisite: courses 30A, 110A, and 113A, with grades of C– or better. Enforced corequisite: course 110B or C113B. Lectures include techniques of physical measurement, error analysis, and special topics. Laboratory includes spectroscopy, thermodynamic measurements, and chemical dynamics. P/NP or letter grading.

114H. Physical Chemistry Laboratory (Honors). (5) Lecture, two hours; laboratory, eight hours. Enforced requisite: courses 30A, 110A, and 113A, with grades of B or better. Enforced corequisite: course 110B or C113B. Lectures include techniques of physical measurement, error analysis, and special topics. Laboratory includes topics in physical chemistry to be selected in consultation with instructor. P/NP or letter grading.

C115A-C115B. Quantum Chemistry. (4-4) Lecture, four hours; discussion, one hour. Requisite: course 113A, Mathematics 31A, 31B, 32A, 32B, 33A, with grades of C– or better. Recommended: knowledge of different quantum superpositions to Mathematica 134 or 135 or Physics 131 and of analytic mechanics equivalent to Physics 105A. Course C115A or Physics 115B with grade of C– or better is requisite to C115B. Students taking course C115A are normally expected to take course C115B in following term. Designed for chemistry students with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic quantum mechanics; introduction to quantum chemistry selected from molecular structure, collision processes, theory of solids, symmetry and its application. May be concurrently scheduled with course C215A-C215B. P/NP or letter grading.


M117. Structure, Patterns, and Polyhedra. (5) Same as Honors Collegium M180.) 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 frames), and art (鬂). Fundamental to effects such as working knowledge of symmetry, two-dimensional patterns, and three-dimensional solids. P/NP or letter grading.

118. Colloidial Dynamics Laboratory. (4) Lecture, two hours; laboratory, eight hours. Requisites: courses 110A and 110B, with grades of B or better, or equivalent statistical mechanics courses from engineering, mathematics, or physics. One aspect of dispersed systems: protein microscale particles in viscous liquids is such that dispersions can be used as visual model systems for studying phases that chemistry undergraduates typically learn about for nanoscale and molecular systems, yet they do not see. Temperature continuously excites molecules and causes rearrangements, giving dynamic views of macromolecules and particles in many fields, including cell and molecular biology, chemical engineering, and materials science, and physics. Letter grading.

M120. Soft Matter Laboratory. (4) (Same as Physics M180G.) Laboratory, four hours. P/NP or letter grading.

121. Special Topics in Physical Chemistry. (4) Lecture, four hours. Requisite: course 110B. Recommended: course 113A. Topics of considerable research interest presented at level suitable for students who have completed Junior-year courses in physical chemistry. P/NP or letter grading.

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 solution of ordinary and partial differential equations. Development of problem-solving skills through the study of these mathematical techniques, with examples from physical chemistry. Concurrently scheduled with course C222P. P/NP or letter grading.

C123A-C123B. Classical and Statistical Thermodynamics. (4-4) Lecture, four hours; discussion, one hour. Requisite: course 110B or 115. Recommended: course 113A. Rigorous presentation of fundamentals of classical thermodynamics. Principles of statistical thermodynamics; heat, work, and 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 polyatomic gases. May be concurrently scheduled with courses C223A-C223B. P/NP or letter grading.

125. Computers in Chemistry. (4) Lecture, three hours; computer laboratory, one hour. Requisites: courses 110A and 113A, with grades of C– or better. Discussion of data acquisition and instrument control, scientific programming and data analysis, structural databases and molecular modeling methods. Hands-on computer laboratory experience with a wide range of open source and commercial scientific software. P/NP or letter grading.

C126A. Computational Methods for Chemists. (4) Lecture, four hours; laboratory, four hours. Preparation and programming experience with C, 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, simple ab-initio methods for organic molecules and nanotubes, and classical dynamics and spectroscopy. Concurrently scheduled with course C226A. P/NP or letter grading.

CM127. Synthetic Biology for Biofuels. (4) (Same as Chemical Engineering CM127.) Lecture, four hours; discussion, one hour. Requisite: course 153A. Engineering microorganisms for complex phenotypes is common goal of metabolic engineering and synthetic biology. Production of advanced biofuels involves designing structures and constructing networks in cells. Such efforts require profound understanding of biochemistry, protein structure, and biological regulation and are aided by tools in bioinformatics, systems biology, and molecular biology. Familiar with range of open source and commercial scientific software. P/NP or letter grading.

136. Organic Structural Methods. (5) Lecture, two hours; laboratory, eight hours. Requisites: courses 30C and 30CL, with grades of C– or better. Laboratory
course in organic structure determination by chemical and spectroscopic methods; microtechniques. P/NP or letter grading.

C140. Bionanotechnology. (4) Lecture, three hours. Requisites: courses 30C, 110A. Basic physical, chemical, and biological principles in bionanotechnology; material chemistry (bottom-up and bottom-up fabrication of ordered biologically derived molecules, characterization and detection techniques, and biomimetic materials and applications at nanoscale. Concurrently scheduled with course C224G. P/NP or letter grading.

C143A. Structure and Mechanism in Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course C143A with grade of C– or better. Mechanisms of organic reactions; aciditity and acid catalysis; linear free energy relationships; isoretope 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 Organoy Synthesis. (5) Lecture, two hours; laboratory, eight hours. Requisites: courses 30C and 30CL, with grades of C– or better. Lab course for introductory organic chemistry. Emphasis is on the practical aspects of organic chemistry. The laboratory course is scheduled concurrently with the lecture course. P/NP or letter grading.

C145. Theoretical and Computational Organic Chemistry. (4) Lecture, two hours; discussion, one hour. Requisites: courses 30C, 113A, 113B, 113C. Applications of quantum mechanical concepts and methods to understand and predict organic structures and reactivities. Computational modeling methods, including learning experience with force-field and quantum mechanical computer calculations. Concurrently scheduled with course C245. P/NP or letter grading.

147. Careers in Chemistry and Biochemistry. (3) Seminar, one hour. Exploration of employment and career opportunities available to students. Different speakers give short presentations to describe their career paths in areas such as industry, government, research, and academia. Emphasizes current healthcare, 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 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. Isotopic analysis, 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 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. Isotopic analysis, 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; tutorial, one hour. Requisite: course 153A or 153AH. Recommended: Life Sciences 2, 3, 23L, or 7A. Nucleotide metabolism; DNA replication; RNA degradation; 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; 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. (4) Lecture, three hours; discussion, two hours; tutorial, one hour. Requisite: course 153A or 153AH. Honors course parallel to course 153B. P/NP or letter grading.


153D. Introduction to Protein Structural Biology. (4) Lecture, two hours; discussion, one hour. Requisites: course 153A, Life Sciences 3 or 7A. Proteins are diverse set of macromolecules that perform critical functions within cells, ranging from enzymes that catalyze metabolic reactions to proteins that enable pathogens to cause disease. Introduction to field of protein structural biology, that seeks to understand molecular 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 approaches are used to determine three-dimensional structures of proteins. Hands-on training 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, four hours. Requisites: courses 14EL or 20L, 30AL, and 153A or 153AH (may be taken concurrently), with grades of C– or better. Integrated term-long project involving biofuel production in bacteria. Purification of key enzyme for alcohol production from bacteria via affinity chromatography. Assay of enzyme activity and assay of enzyme activity. Techniques include protein determination by Bradford assay, polyacrylamide gel electrophoresis, immunoblotting, and enzyme activity assays to determine enzyme activity (Mm Vmax, inhibitor studies). P/NP or letter grading.

154. Biochemical Methods II. (5) 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, cell cycle checkpoint mechanisms, RNA cleavage, interactions, biochemical basis of platelet activation, and initiation of blood clotting cascade. Experiments entail characterization of protein functions, nucleic acids, and lipids involved in these processes. P/NP or letter grading.

155. Mitochondria in Medicine, Biology, and Chemistry. (1) Seminar, two hours every other week. Open to students not currently enrolled in the major considering or currently conducting research in areas related to mitochondria. Large number of physiological and pathophysiological processes involve 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 depend on form, location, and organization. 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. Requisites: courses 110A, 153A. Biochemical kinetics; solution thermodynamics of biological systems; multiple equilibria; hydrodynamics; energy levels, spectroscopy, and bonding; topics from structural, statistical, and electrochemical methods of biochemistry. P/NP or letter grading.

C158. Mechanism of Protein Function. (4) Formerly numbered C159A.) Lecture, four hours. Requisite: course 153B. RNA polymerase structures and mechanisms; promoter recognition and transcription coupling. Mechanisms of 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. 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. 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, Mathemat- ics 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 computational methods, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analy- sis and alignment. Concurrency checklist. Concurrently scheduled with course CM260A. P/NP or letter grading.

C160B. Algorithms in Bioinformatics. (4) (Same as Computer Science CM122.) Lecture, four hours; discussion, two hours. Requisite: Computer Science 33 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. Course CM160A is not requisite 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 interesting 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 CM260B. Letter grading.

C163. Membrane Protein Structure and Function. (4) Lecture, four hours. Enforced requisite: course 156. Detailed examination of how membrane proteins work. Topics include lipid bilayer properties and how they affect membrane protein function and bi- ology; membrane protein biogenesis; principles of transport across membranes; how channels, transporters, and receptors work at atomic level. Emphasis on reading and analyzing original research papers. Concurrently scheduled with course C263. P/NP or letter grading.

C164. Free Radicals in Biology and Medicine. (2 to 4) Lecture, four hours. Enforced requisites: courses 153A and either 153B or 153C, with grades of C– or better. Biochemical reactivity of dioygen, its role in mitochondrial metabolism, 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 normal biological processes, under conditions when 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.

C176. Group Theory and Applications to Inorganic Chemistry. (4) Lecture; three hours; discussion; one hour. Requisites: courses 119A and 172, with grades of C– or better. Group theoretical methods; molecular orbital theory; ligand-field theory; electronic spectroscopy; vibrations in inorganic molecules. May be concurrently scheduled with course C276A. P/NP or letter grading.

C179. Biological Inorganic Chemistry. (4) Lecture; three hours. Requisites: courses 153A (or 153AH), 171. Role of metal ions in biology. Topics include interactions of metal ions with proteins, nucleic acids, and other biological molecules; mechanisms of metal ion transport and storage; introduction to metalloenzymeology; metalloprotein structure and bonding; metallophotophysics; metals in medicine. Concurrently scheduled with course C279. 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, 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 30B, 110A. Synthesis of organic and inorganic macromolecules, theoretical aspects. Applications of the concept of the ideal gas to a system of macromolecules. Kinetic theory, statistical mechanics, critical phenomena, and other modern methods. P/NP or letter grading.

148. Chemical Instrumentation. (5) Lecture; two hours; laboratory; eight hours. Enforced requisites: courses 30CL, 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.

148M. Stochastic Processes in Biochemical Systems. (4) (Same as Computational and Systems Biology 148M.) Lecture; three hours; discussion; laboratory; eight hours. Topics include stochastic processes in sets of channels, physiological processes including gene expression and metabolism, and general stochastic processes. P/NP or letter grading.

151B. Stochastic Processes in Biochemical Systems. (4) (Same as Computational and Systems Biology 151B.) Lecture; three hours; discussion; laboratory; eight hours. Topics include stochastic processes in sets of channels, physiological processes including gene expression and metabolism, and general stochastic processes. P/NP or letter grading.

C192F. 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 Physics 192S with grade of C– or better. Training and supervised practicum for advanced undergraduate students to practice collaborative learning as part of their research experience. Students apply collaborative learning principles in small-group settings. Students practice communication skills with frequent assessment of and feedback on progress. Letter grading.

C192G. Methods and Application of Collaborative Learning Theory and Practice: Introduction, Methods, and Applications. (2) Seminar; one hour; clinic; one to eight hours. Requisite: course 192E or Life Sciences 192A or Physics 192S with grade of C– or better. Training and supervised practicum for advanced undergraduate students to practice collaborative learning as part of their research experience. Students apply collaborative learning principles in small-group settings. Students practice communication skills with frequent assessment of and feedback on progress. Letter grading.
193B. Journal Club Seminars: Chemistry and Biochemistry. (2) Seminar, three hours. Limited to undergraduate 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. Designed for undergraduate students who are part of research group. Advanced study and analysis of current topics in physical, organic, or inorganic chemistry or biochemistry. Current research 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 petitions, and written proposal deadlines. May be repeated for maximum of 8 units. Individual contract required. P/NP grading.

196B. Research Apprenticeship in Chemistry and Biochemistry. (2) Tutorial, three hours per week per unit. Enforced requisite: course 196A (8 units). Limited to juniors/seniors. Research apprenticeship for upper-division students under guidance of faculty mentor. Consult department for additional information regarding requirements, enrollment petitions, and written proposal deadlines. May be taken for maximum of 4 units. Individual contract required. P/NP or letter grading.

199. Directed Research in Chemistry and Biochemistry. (2 to 4) Tutorial, three hours per week per unit. Enforced requisite: course 196A (8 units). Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating report required. 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. 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 downstream (e.g., over 80 percent of drug candidates fail in clinical trials). High-throughput technologies such as sequencing, microarrays, mass-spc, and robotics have given biologists integrative tools for analyzing complete genomes, expression patterns, functions, and interactions across whole organisms, populations, and species. Core 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. Designed for graduate biochemistry and molecular biology students. How 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. Discussion of ethical questions faced 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 issues in 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 preparations, animal housing and care, handling of human and animal subjects, 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 requisite: course 203A or 203B or 203C. Cellular and molecular biology PhD students continue to learn how to conduct research in field of interest while maintaining ethical principles. Designed to be taken in fourth or fifth year of PhD work where students would have already been exposed to many challenges of performing and reporting experiments and who are in stage of their careers where they are beginning to think of applying for postdoctoral fellowships and research and teaching positions. Course helps fulfill training requirement in research integrity and personal conduct and individual NSF 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 seminar presented 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 biochemistry research, pep-tidomimetics, designed reagents for cellular imaging, natural product drug discovery and cell, engineered and directed evolution, cell biology of metal ions, imaging metal ions in cells, metal-containing drugs. Concurrently scheduled with course C105. Letter grading.

M205B. Issues on Chemistry/Biology Interface. (2) Seminar, two hours. Enforced requisite: 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 (CBI). S/U grading.

206. Chemistry of Biology 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.

C207. Organometallic Chemistry. (4) Lecture/discussion, three hours. Enforced requisite or corequisite: course 172. Survey of synthesis, structure, and reactivity (emphasizing mechanistic approach) of compounds containing carbon bonded to elements selected from main group metals, metalloids, and transition metals, including organometallic compounds in biocatalysis and protein identification, and proteomics. Concurrently scheduled with course C107. S/U or letter grading.

C208. Mass Spectrometry for Chemists and Biochemists. (2) Lecture, one hour; laboratory, four hours. Requisite: course 153A. Introduction to principles and practice of organic and inorganic mass spectrometry. Topics include EI, CI, ICPMS, GC/MS, LC/MS, MALDI, MS/MS/M protein identification, and proteomics. Concurrently scheduled with course C108. S/U or letter grading.

209. 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.

210. Advanced Topics in Chemical Research. (2) Seminar, one hour. Designed for second-year graduate students to face contemporary challenges in chemical research and their own research projects. Building of critical thinking skills and proposal writing skills. S/U grading.

C213B. Physical Chemistry: Molecular Spectrosco-py I. (4) Lecture, two hours; discussion, one hour; tu-torial, one hour. Requisite: course 113A. Introduction of radiation with matter, microwave spectroscopy, infrared and Raman spectroscopy, vibrations in poly-nuclear complexes, magnetic resonance spectroscopy, and 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. (4-8) Lecture, four hours. Enforced 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 131A and of analytical mechanics equivalent to Physics 105A. Course C215A or Physics 115B with grade of C– or better is requisite to course C215B. Students entering course C215A are normally expected to take course C215B in following term. Designed for chemists and biochemists with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic quantum mechanics; expansion theorems; wells; oscillators; angular momentum; basis sets; 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, postdoctoral fellows, and graduate students. May be repeated for credit.

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 papers in area of photon resolved spectroscopy of materials with focus on materials and biophysics applications. Literature discussion, discussion of recent results, safety procedures, and guest lectures. S/U 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, 33A, 33B. Mathematics necessary to study physical chemistry at graduate level, with focus on review of vectors, linear algebra, elementary complex analysis, solution of ordinary and partial differential equations. Development of problem-solving skills through homework based on these mathematical techniques, with examples from physical chemistry. Concurrently scheduled with course C122. S/U or letter grading.

C223A-C223B. Classical and Statistical Thermody-namics. (4–4) Lecture, four hours; discussion, one hour. Requisite: course 110B or 156. Recommended: course 110A. Presentations 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
235. Spectroscopic Methods of Organic Chemistry. (4) Lecture, three hours. Requires or corequisite: course C243A. Problem solving using proton and carbon 13 nuclear magnetic resonance, infrared spectroscopy, and mass spectrometry; new techniques in NMR, IR, and MS, and emphasis on Fourier transform NMR. S/U or letter grading.

240. Biotechnology. (4) Lecture, three hours. Requires: courses 30C, 110A. Basic physical, chemical, and biological principles in biotechnology; microbial growth, metabolism, and cell engineering; fermentation; bioprocesses; waste treatment; and recombinant DNA technology. S/U or letter grading.

241A-241Z. Special Topics in Organic Chemistry. (2 to 4 each) Lecture, two to four hours. Requires or corequisite: course C243A. Each course encompasses one recognized specialty in organic chemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.

CM237. Synthetic Biology for Biofuels. (4) Requires Chemical Engineering CM227. Lecture, four hours discussion, one hour. Requires: course 153A. Engineering microorganisms for complex phenotype is a common goal of metabolic engineering and synthetic biology. Production of small molecule is central to value in organisms. S/U or letter grading.

CM238. Structural Molecular Biology. (4) As Molecular, Cell, and Developmental Biology M230B. Lecture, three hours; discussion, one hour. Requires: Mathematics 3C, Physics 6C. Selected topics from principles of biological structure; structures of globular proteins and RNAs; structures of fibrous proteins, nucleic acids, and polysaccharides; harmonic analysis and Fourier transforms of electron density; and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction. S/U or letter grading.

CM239. Structural Molecular Biology Laboratory. (2) As Molec. Cell, and Developmental Biology M230D. Laboratory, ten hours. Corequisite: course CM238B. Methods in structural molecular biology, including expression and purification of single-crystal X-ray diffraction, low angle X-ray diffraction, electron diffraction, optical diffraction, optical filtering, three-dimensional reconstruction from electron micrographs, and model building. S/U or letter grading.

cotranscriptional and transcription-coupled RNA processing; impact of transcription on mRNA processing and stability; nuclear export of mRNA. Concurrently scheduled with course C159. S/U or letter grading.

260B. Algorithms in Bioinformatics. (4) Same as Bioinformatics M222 and Computer Science CM222.) 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 Bioinformatics 100A, 110A, Civil Engineering 110, Electrical Engineering 151A, 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 concepts and inventing new computational and statistical techniques to analyze complex data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM160A. S/U or letter grading.

260B. Introduction to Bioinformatics. (4) Same as Bioinformatics M221, Computer Science CM221, and Human Biology CM160A. 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 Bioinformatics 100A, 110A, Civil Engineering 110, Electrical Engineering 151A, 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 concepts and inventing new computational and statistical techniques to analyze complex data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM159. S/U or letter grading.


268. Biochemistry Research Seminar. (2) Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students on topics of current biomedical research interest. May be repeated for credit. S/U or letter grading.


269D. Mechanism and Regulation of Gene Expression. (2) Lecture, five hours; discussion, two hours. Requisites: courses 153A, 153B, 153C, 156, 158. Kinetics of protein function and biology; mechanisms of protein function and biologically; principles of transport across membranes; how channels, transporters, and receptors work at atomic level. Emphasis on understanding of conceptual basis of the algorithm. Concurrently scheduled with course CM163. S/U or letter grading.


270. Biochemistry and Molecular Biology of Protein Transport. (2) Lecture, five hours; discussion, two hours. Requisites: courses 110A, 110B, 110C, 172, with grades of C– or better. Synthesis of inorganic compounds, including air-sensitive materials; Schlenck techniques; chromatographic and ion exchange methods; spectroscopic characterization and literature applications. Concurrently scheduled with course C174. S/U or letter grading. (May be repeated for credit.)

271. Advanced Topics in Inorganic Chemistry. (2 to 4) Lecture, two to four hours. Each offering encompas les 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 in Inorganic Chemistry. (2 each) Seminar, three hours. Advanced study and analysis of current topics in inorganic chemistry, discussion of current research and literature. Each year topics change and a teaching assistant is added. Concurrently scheduled with course. S/U grading.


273. Electrosystems. (4) Lecture, three hours; discussion, two hours. Introduction to principles of electrochemical systems commonly applied in research 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. This class helps students appreciate research and technologies in catalysis, energy storage and conversion, and advanced environmental technologies. Concurrently scheduled with course C174. S/U or letter grading.

274A. Inorganic and Metalorganic Laboratory Methods. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 171, with grades of C– or better. Survey of inorganic reactions; mechanisms and electronic structure of metal ions; transition-metal coordination chemistry; inner- and outer-sphere and chelate complexes; substitution, isomerization, and racemization reactions; stereochemistry, oxidation/reduction, free radical chemistry, polymerization; reactions of inorganic species. May be concurrently scheduled with course C175. S/U or letter grading.

276A. Group Theory and Applications to Inorganic Chemistry. (4) Lecture, three hours. Requisites: courses 110A, 110B, 113A, and 172, with grades of C– or better. Survey of inorganic reactions; mechanisms and electronic structure of metal ions; transition-metal coordination chemistry; inner- and outer-sphere and chelate complexes; substitution, isomerization, and racemization reactions; stereochemistry, oxidation/reduction, free radical chemistry, polymerization; reactions of inorganic species. May be concurrently scheduled with course C176. S/U or letter grading.

277A. Group Theory and Applications to Inorganic Chemistry. (4) Lecture, three hours. Requisite: course C276A. Theory and applications of spectroscopic techniques, including magnetic resonance and vibrational and surface science methods, to inorganic compounds and materials. S/U or letter grading.

278. Inorganic Chemistry Student Seminar. (2) Seminar, two hours. Concurrently scheduled with course C178. S/U or letter grading.


280. Physical Methods in Inorganic Chemistry. (4) Lecture, three hours. Requisite: course C278A. Theory and practice of modern crystallography, with emphasis on practical experience in structure determination. Topics include crystallographic symmetry, scattering theory, data reduction and analysis, heavy atom techniques, direct methods, isomorphous replacement, crystallographic refinement, error analysis, and common pitfalls. S/U or letter grading.


metalloproteins in electron transfer, respiration, and photosynthesis; metals in medicine. Concurrently scheduled with course C178. S/U or letter grading.

C280. 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.

C281. Polymer Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30B, 110A. Synthesis of organic and inorganic macromolecules, thermodynamic and statistical mechanical descriptions of unique properties of polymers, polymer characterization methods, and special topics such as conductive and biomedical polymers and polymeric reagents in synthesis. Concurrently scheduled with course C181. S/U or letter grading.

282. Introduction to Inorganic Chemistry Research. (2) Lecture, 90 minutes. Discussion of current research in inorganic chemistry, designed primarily for entering graduate inorganic chemistry students. S/U grading.


M370A. Integrated Science Instruction Methods. (4) (Same as Earth, Planetary, and Space Sciences M370A and Physics 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 Earth, Planetary, and Space Sciences M370B and Physics M370B) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisite: course M370A or Earth, Planetary, and Space Sciences M370A or Physics 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.

400. Safety in Chemical and Biochemical Research. (2) Lecture, two hours. Survey of safe laboratory practices for experimental research in organic, inorganic, and physical chemical 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.

596. Directed Individual Study or Research. (2 to 16) Tutorial, to be arranged with faculty member who directs study or research. May be repeated for credit. S/U or letter grading.

597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 4) Tutorial, to be arranged. May be taken for maximum of 8 units. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 16) Tutorial, to be arranged. Each faculty member supervises research of MS students and holds research group meetings, seminars, and discussions with students. May be repeated for credit. S/U or letter grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Each faculty member supervises research of PhD students and holds research group meetings, seminars, and discussions with students. May be repeated for credit. S/U or letter grading.

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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 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 Latina/Latino community and to global society in the tradition of César Chávez and scholar activist exemplars.

Chicana and Chicano Studies BA

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 service 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, M143, M144, CM147, 151, 152, 153A, M154, M155A, M156A, 163, 176, 184, 191

Expressive Arts: Chicana and Chicano Studies

History, Culture, and Language of Americas: Chicana and Chicano Studies

Labor, Law, and Policy Studies: Chicana and Chicano Studies
- CM102, CM106, M119, 120, M121, M122, 123, M127, M128, M130, M148, 149, 150, 151, 152, M156A, M156B, 165, 166, M174A, M174B, CM177, 178, C179, 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.

Honor 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 189A, 1988, 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 major 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-MSB-MSC. Elementary Nahuatl. (4–4–4) (Same as Indigenous Languages of the Americas M5A-MSB-MSC and International and Area Studies M5A-MSB-MSC.) Lecture, five hours. Course M5A is enforced requisite to MSB, which is enforced requisite to MSC. 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. (3) Lecture, three hours; discussion, one hour. Interdisciplinary survey of diverse historical experiences, cultural factors, and ethnic/racial paradigms, including indigeneity, gender, sexuality,
M105C. 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 Chicano theater since 1980, as well as theatrical traditions that led to emergence of Chicano theater. 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 acquire skills to read their stories out loud, with emphasis on expanding their writing through an art of storytelling and performance. P/NP or letter grading.

M105A. Early Chicana/Chicano Literature, 1400 to 1920. (6) (Same as English M105A.) Lecture, four hours; discussion, one hour (when scheduled). Required: English Composition 3 or 3H. Study of various topics related to Chicana/Chicano and/or Latina/Latina literature. In-depth study of various topics related to Chicano/Latino communities in Southern California, including Chicana/Chicano visions of Los Angeles 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 performed with Chicana/Chicano and/or Latina/Latina community and selected by instructor. P/NP or letter 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 organizations, labor union, or service-oriented nonprofit organization. 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.

104G. Gender, Fiction, and Social Change. (4) Lecture, four hours. How to mine unique humorous life adventures from students’ cultural identities and turn those distinct experiences into humorous literature. Students acquire skills to read their stories out loud, with emphasis on expanding their writing through an art of storytelling and performance. P/NP or letter grading.

98M105B. Chicana/Chicano Literature from Mexican Revolution to el Movimiento, 1920 to 1970s. (6) (Same as English M105B.) Lecture, four hours; discussion, one hour (when scheduled). Required: English Composition 3 or 3H. Study of various topics related to Chicano/Latino communities in Southern California, including Chicana/Chicano visions of Los Angeles 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 performed with Chicana/Chicano and/or Latina/Latina community and selected by instructor. P/NP or letter grading.
M106B. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Gender Studies M104C, Gerontology M104C, Public Affairs M131, and Social Welfare M104C.) Lecture, four hours. Exploration of complexity of variables related to diversity of aging population and its consequences. 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.

C107. Latina/Latino 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. society 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. Concurrently scheduled with course C212. P/NP or letter grading.

M108A. Music of Latin America: Mexico, Central America, and the Caribbean. (5) (Same as Ethnomusicology M108A.) Lecture, four hours; discussion, one hour. Survey of traditional and contemporary musical culture. P/NP or letter grading.


CM110. Chicana Feminism. (4) (Same as Gender Studies CM132A.) Lecture, four hours. Enforced requisite: course 10A or 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 Latina/Latino 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 oppressed. Letter grading.

113. Day of Dead Ritual. (4) Lecture, four hours; discussion, one hour (when scheduled). Introduction to philosophical roots and evolution of traditional celebration of Day of Dead ritual: Contemplation of indigenous, (Spanish, Mexican, Chicano, and other influences and manifestations of this ritual. Special attention to Nahualt language and worldview related to this ancient ritual, such as ancient calendar systems. Designed to motivate critical thinking about what is observed in arts today and impact globalization has on tradition. P/NP or letter grading.

M114. Chicano in Film/Video. (5) (Same as Film and Television Studies M102.) Lecture and discussion, one hour. Goal is to gain nuanced understanding of Chicano cinema as political, socioeconomically, cultural, and aesthetic practice. Examination of representation of Chicano American individuals and Chicanos in four Hollywood genres—e.g., gangster films, central erotic problem films, Westerns, and gang films—that are major genres that account for films about or with Mexican American characters. Exploration of stereotypes and biases between 1938 and 1980. Examination of recent Chicano-produced films that subvert or signify on these Hollywood genres, including Zoot Suit, Ballad of Gregorio Cortez, and Born in East L.A. Construction of longer, more experimental work that critiques Hollywood image of Chicanos. Guest speakers include both pioneer and up-and-coming filmmakers. P/NP or letter grading.

M115. Musical Aesthetics in Los Angeles. (4) (Same as Ethnomusicology M115S.) Lecture, three hours. Confronting aesthetics from classical perspective of art as intuition, examination on cross-cultural basis of diverse musical contexts within vast multicultural mosaic of various nations, communities, musical networks and specific experiences of Chicano/Latino, African American, American Indian, Asian, rock culture, Western art music tradition, and commercial music industry. P/NP or letter grading.

M116. 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. P/NP or letter grading.

117. Chicana/Chicano Images in Mexican Film and Literature. (4) Lecture, four hours. Preparation: adequate understanding of Spanish-language films without English subtitles. Throughout its 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 cinematic discourse portrayal of Chicanas/Chicanos has been plagued by use of stereotypes that limit visual representation of Chicanas/Chicanos. Examination of influences and effects for such obtuse cinematic representation. P/NP or letter grading.

M118. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as African American Studies M118, American Indian Studies M118, Asian American 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 model. May be repeated twice for credit. Letter grading.

M119. Chicano/Latino Community Formation: Critical Perspectives and Oral Histories. (4) (Same as Labor and Workplace Studies M123.) Lecture, four hours. Analysis of historical formation and development of Chicano/Latino communities in 20th century, with focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.


M121. Issues in Latina/Latino Poverty: Mexican American, Central American, and Anglo Poverties. (4) (Same as Labor and Workplace 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 intersectionality of being Mexican or Central American and working class or nonworking class. P/NP or letter grading.


123. Applied Research Methods in Latino Communities. (4) Lecture, three hours. Through combination of lectures, key readings, and several experiments, introduction to several applied research methods that are highly effective in producing sound and methodologically rigorous studies of Latino communities, including important data that can be used for critical analysis and policy recommendations. Letter grading.

M124. Latino Immigration History and Politics. (4) (Same as Honors Collegium M143C.) Lecture, four hours. Overview of Mexican, Central American, and Latina/Latino immigration to U.S., examining social, political, and economic contexts out of which different forms of Latino American immigration have occurred. P/NP or letter grading.

M125. U.S./Mexico Relations. (4) (Same as Labor and Workplace Studies M125.) Lecture, four hours. Examination of complex dynamics in 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.

M126. Politics of Crisis: Migration, Identity, and Region. (4) (Same as Honors Collegium M145.) Lecture, three hours. Examination of individual and collective religious response of Latin Americans and Latinas/Latinxs in the U.S. to diaspora experiences and fragmentation produced by conquest, colonization, underdevelopment, globalization, and migration. Letter grading.

M127. Farmworker Movements, Social Justice, and United Farm Workers Legacy. (4) (Same as Labor and Workplace Studies M127.) Lecture, four hours. Designed for juniors/seniors. Historical and social contexts of farmworker organizing, including multicultural origins and its impact 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) (Same as Labor and Workplace Studies M128.) Lecture, four hours. Designed for juniors/seniors. Introduction to history and organization of labor movement in U.S. and North America. Discussion of race, class, and gender issues raised within movement, and various strategies for social change pursued through organized labor and other means. Letter grading.

129. Field Research Methods in Labor and Workforce Studies. (8) Lecture, four hours; field studies, two hours. Designed for seniors. Focus on research methods for social science, discussion of 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.

M130. Worker Center Movements: Next Wave Organizing for Justice for Immigrant Workers. (4) (Same as African American Studies M167, Asian American Studies M163, and Labor and Workplace Studies M167.) Seminar, three hours. 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 worker centers in promoting multiracial and multicultural campaigns for workplace and economic justice. Transnational cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

131. Barrio Popular Culture. (4) Lecture, three hours. Examination of model by which to organize study of Chicana/Chicano popular culture by focusing on barrio as metaphor for community. Examination of beliefs, myths, and values of Chicana/Chicano culture and how they manifest in literature, performance, and popular art forms through literature, film, video, music, mass media, and oral history. Letter grading.
13B8. Barrio Suburbanism, (4) Seminar, four hours. Examination of barrio suburbanism, in which Chicanas/Chicanos and Latinas/Latinos impact working- and middle-class suburbs to reshape geography of metropolitan centers. Building upon urban studies of roles of public policy and planning in formation of ex-barrio, how suburban forms operate in multifaceted and regional context. Points of intersection and conflict that illuminate how Chicana/Chicana and Latina/Latina suburbanites interrelate economic, social, and political contours of suburbs in Los Angeles metropolitan region. Major themes include urban policy-planning history, mapping, immigration, relational racial formations, and resultant of regional democracy. P/NP or letter grading.

C139. Gender and Social Movements, (4) Seminar, three hours. Examine feminist organizations that emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and new social movements that are concerned with 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.

C144. Women’s Movement in Latin America, (4) (Same as Gender Studies M144 and Labor and Workplace Studies M144.) Lecture, four hours. Course on women’s movements and political coalitions that have emerged 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 new social movements that are concerned with 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.
Lecture, four hours. Exploration of peoples of and in Central America, and how these identities, afro-indigeneity, blackness, mulataje, ladino, and transnational exploration of indigenism, indigeneity, political inclusion, cultural recovery, racism, and struggles that compelled Chicanas/Chicanos to mobilize of diverse sectors of society. Letter grading.

M155A. Latinos in U.S. (4) (Same as Sociology M155A). Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Examination of racial and ethnic identity, political inclusion, cultural recovery, racism, and strategies and behaviors of immigrants. Emphasis on oral history and social movement theory. Investigation of diverse ideologies, debates, and legacies of Chicano Movement. Letter grading.

M155B. U.S. Latino Politics. (5) (Formerly numbered M155S.) (Same as Political Science M151B). Lecture, four hours; discussion, one hour (when scheduled). Historical and contemporary development of United States political parties and the role of Latinos. Examination of history and contemporary role of Latinos in U.S. political system. Topics include historical and social analysis of Latino immigration and migration; civil rights movement; the labor movement; immigration legislation 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 role of Latino vote in recent presidential elections. P/NP or letter grading.

M156A. Immigrant Rights, Labor, and Higher Education. (4) (Same as American Studies M166A and Labor and Workplace Studies M166A,). Lecture, three hours; discussion, one hour. New immigrant rights movement, with particular attention to labor and higher education. Focus on immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on higher education, the DREAM Act, challenges facing undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, and interviews on immigrant experiences and work to collectively develop student publications on immigrant students in higher education. P/NP or letter grading.

M156B. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as Asian American Studies M166B and Labor and Workplace Studies M166B.) Seminar, two hours. Requisite: course M156A. Expansion of students in course 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 and Workplace Studies M166C.) Seminar, two hours. Requisite: course M156A. Expansion of students in course M156A involving oral histories, research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented students. Designed around class project, where students work on showcasing all material collected throughout year. Letter grading.

M157. Chicano Movement and Its Political Legacies. (4) Lecture, four hours. Collective examination of Chicano Movement of 1960s and 1970s and analysis of its political legacies. Grounded in historiographic inquiry and socio-political analysis. Focus on mobilization of diverse sectors of Mexican migration, including students, workers, artists, youth, community activists, and women. Exploration of myriad issues and strategies employed by Chicanos/Chicanas to resist such as land and labor rights, education, anti-war movements, community autonomy; police brutality, political inclusion, cultural recovery, racism, sexism, and class exploitation; diverse ideologies, debates, and legacies of Chicano Movement through analysis of Chicana/Chicano motivations for organizing, modes, strategies, innovations, challenges, and dilemmas. P/NP or letter grading.

M158. Chicana Historiography. (4) (Same as Gender Studies M157 and History M151D.) Lecture, four hours. Examination of Chicana historiography, looking closely at how and why particular Chicana/o historiographies have placed Chicanas into particular narratives. Using Chicana feminist approaches to study of history, revisiting specific historical periods and moments such as Spanish Conquest, Mexican Period, American Conquest, 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.

M159. History of Chicanas and Chicanos. (4) (Same as History M151A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey course course on historical development of Mexican (Chicano) community and people of Mexican descent in the U.S., from Mexican-American Wars through to 17th, 18th, and 19th centuries, with special focus on labor and political movements. Integrates understanding of change over time in Mexican community by inquiry into major political and social movements in the Mexican community. Social structure, economy, labor, culture, political organization, conflict, and international relations. Emphasis on social forces, class analysis, social, economic, and labor conflict, ideas, domination, and resistance. Developments related to historical events of significance occurring both in the U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and field research, and submission of paper. P/NP or letter grading.

M159B. History of Chicanos and Chicanas. (4) (Same as History M151B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey course on historical development of Mexican (Chicano) community and people of Mexican descent in the U.S., from Mexican-American Wars through to 17th, 18th, and 19th centuries, with special focus on labor and political movements. Integrates understanding of change over time in Mexican community by inquiry into major political and social movements in the Mexican community. Social structure, economy, labor, culture, political organization, conflict, and ideology. Developments related to historical events of significance occurring both in the 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.

160. Introduction to Chicana/Chicano Speech in American Society. (4) Lecture, three hours. Survey course presenting (1) basic elements of Chicana language use, including history of Chicana languages, types and social functions of Chicana speech (pachuco, caló, Spanglish), sexist language, and multilingualism and monolingualism and (2) major social issues associated with language use by Chicanos and their unique urban ethnic populations. Letter grading.


162A-M162B-M162C. Advanced Nahautli. (4–4–4) (Same as Indigenous Languages of the Americas M115A-M115B-M115C and Internation 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 the Aztec language of Mexico. Examination of Nahautli (Aztec) language of central Mexico at intermediate level. Coverage of Nahautli grammar, with equal emphasis on reading, writing, conversing, and comprehension. P/NP or letter grading.

163. Bilingual Advantage: Spanish Language Top. on Chicanas/Chicano and Latin American Cul. tures. (5) Lecture, four hours; discussion, one hour. Requisite: Spanish 4. Revision of Spanish language literature, with emphasis on Chicano/Latino literature in the U.S., providing for student development of academic skills in Spanish, Comparison with Spanish language media in other parts of world. Letter grading.

164SL. Oral History I: New Immigrant Youth. (3) (Formerly numbered M164SL) Seminar, three hours; tutoring, three hours. Theory, methodology, and practice of oral history, together with background information on Mexican-Chicana and Chicana immigration. Emphasis on oral history and testimonio methods. P/NP or letter grading.
165. Latinas and Latinos in Public Education. (4) Lecture, four hours. Examination of language issues pertinent to educational systems, including language inequity, literacy, testing, and socialization, as well as institutional ideologies. Letter grading.

166. Paulo Freire for Chicanas/Chicanos Classroom. (4) Seminar, four hours. Introduction to pedagogy of Paulo Freire and examination of historical and contemporary problems circumscribing Chicanas/Chicanos. Central focus to offer Freirean alternative to answer theoretical, methodological, practical, and policy questions about schooling of Chicanas/Chicanos in the U.S. P/NP or letter grading.

M167SL. Taking It to Street: Spanish in Community. (5) Same as Spanish M152SL. Seminar, three hours: fieldwork, 10 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.


168B. Latinos: Television News. (4) Lecture, four hours. Requisite: course 168A. Study of multimodal (visual, graphic, audio, and text) images and ideas disseminated by television news programs to learn how news content comes to their understanding of Latinos. Development of critical visual interpretive acuity through semiotics training and analysis of actual television news stories. Letter grading.

169. Representatives of Indigenous Peoples in Americas, (4) Lecture, four hours. Strongly recommended prerequisite: History 14. Introduction to different forms of representation of indigenous peoples and their presence in Americas, with emphasis on Mesoamerica and Andes. How indigenous images are expressed, perceived, and constructed at point of contact with Europeans during development of indigenous and in current period. Discussion of how these relate to Chicana/Chicano identity construction. Letter grading.

M170SL. Latinos, Linguistics, and Literacy. (5) Same as Spanish M172SL. Seminar, four hours: field project, four to six hours. Recommended requisite: Spanish 100A. In-depth study of various topics related to literacy, including different definitions of literacy, programs for adult literates, literacy and gender, approaches to literacy (whole language, phonics, Freire's liberation pedagogy), history of writing systems, phonetics, basic grammar, and standardization efforts. Required field project involving Spanish-speaking adults in adult literacy programs. P/NP or letter grading.

171. Humor as Social Control. (4) 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 assimilated Latinas in Los Angeles. In decline there has been increase of various guises of anti-Latino hegemonic humor in commercial mass-mediated popular culture. Exploration of theorizing, as well as today's examples and examples, of how humor to develop critical literacy of social work it accomplished. Letter grading.

172. Chicanas and Chicano Ethnography. (4) Lecture, four hours. Culture change theory encompasses such issues as nationalization, urbanization, modernization, urbanization, migration, and acculturation. Examination of methods anthropologists/ethnographers use in studying and analyzing culture change within ethnographic background of Mexican and American Mexican people to clarify social and cultural origins of modern habits and customs and, more importantly, unravel various culture change threads that each experience. Topics include technology and evolution, Indian nation-states, miscegenation, peasantry, expansionism, industrialization, immigration, ethnicity, and adaptation. Field project on social aspect of culture change required. P/NP or letter grading.

M173. Nonviolence and Social Movements. (4) (Same as African American Studies M173 and Labor and Workplace Studies M173.) Lecture, three hours; discussion, two hours. Survey 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. Examinations 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 occurring in Los Angeles. P/NP or letter grading.

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 principles of dialogue and mediation, as alternatives to violence, and practice how to apply them in educational settings. In Progress (M174A) and letter (M174B) grading.

174C. Alternatives to Violence: Peer Mediation in Public Schools. (4) (Same as Education M145C.) Lecture, one hour; workshop, three hours. Requisite: courses M174A, M174B. Limited to juniors/seniors. Application of student knowledge and experience to help students in partner schools to develop peer mediation programs. Letter grading.

174D. Understanding Violence: Peer Mediation in Public Schools. (4) (Same as Education M145D.) Lecture, one hour; workshop, three hours. Requisite: courses M174A, M174B. Limited to juniors/seniors. 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 be done to combat it. Letter grading.

175. Chicana Art and Artists. (4) (Same as Art M184 and World Arts and Cultures M128.) Lecture, four hours. Introduction to Chicana art and artists. Examination of Chicana aesthetics. Chicana artists have developed unique experience and identity as artists and Chicanas. Letter grading.

176. Globalization and Transnationalism: Local Historical Dynamics and Praxis. (4) Lecture, four hours. Analysis of dynamics of Chicana/Chicana transnational community formation in comparative global perspective, explored both as historical result of and key future actor in localized dynamics of transnationalization in California and in its world. Analysis of Chica/Chicana experience in California as both highly linked node and localized microcosm of dynamics of globalization that is both affected by as well as influences course of alternative scenarios of globalization. Designed to help students develop critical political economy analysis of interplay between globalization and localized transnational dynamics that together are giving meaning to and constructing new social identities and strategies for struggle throughout world. P/NP or letter grading.

CM177. Latino Social Policy. (4) (Formerly numbered C177.) (Same as Public Affairs M412.) Lecture, three hours; discussion, one hour. Study of impact of public policies on Chicano/Latino social conditions and policies affecting Chicana/Chicana in conditions and policies affecting Chicana/Chicana in social and economic well-being. Lecture, three hours; discussion, one hour (when scheduled). Designed for sociologists, historians, 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. Concurrently scheduled with course C256. Letter grading.


CM182. Understanding Whiteness in American History and Culture. (4) (Same as History M151C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for students interested in 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. Concurrently scheduled with course C256. Letter grading.

M183. History of Los Angeles. (4) (Same as History M151S.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Socioeconomic, cultural, and urban development of Los Angeles and its environs from time of its founding to present. Emphasis on diverse peoples of area, changing physical environment and cultural interpreta- tions of city, and Los Angeles' place among American urban centers. P/NP or letter grading.


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. Examination of public monuments in U.S. as basis for cultural analysis and critique of our understanding of per- spective of artist. Use of urban Los Angeles as text- book in urban space issues such as who is public, what is public space at end of 20th century, what de- fines neighborhoods, and do different ethnic popula- tions use public space differently. P/NP or letter grading.


C178. Language Politics and Policies in U.S.: Comparative 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- litical connotations of firm grasp of concepts of conflict resolution through negotiation, mediation, and work with community participants. P/NP or letter grading.
186AL-186BL-186CL. Beyond Mexican Mural: Muralism and Community Laboratory. (4–4–2) Same as Art 186AL-186BL-186CL and World Arts and Cultures M125SL-M125CL. Course M186AL is required to M186BL, which is requisite to M186CL. M186AL is a laboratory art studio course taught by visiting faculty members. May be repeated for credit. P/NP or letter grading. 189C. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Issued in conjunction with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

190. Research Colloquia in Chicana and Chicano Studies. (2) Seminar, two hours. Limited to students in College Honors Program. Instructive and exploratory seminar. Contact faculty mentor while facilitating USIE 88S course. May be repeated for credit. P/NP grading.

191. 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. P/NP or letter grading.

192A. Undergraduate Practicum in Chicana and Chicano Studies. (4) Seminar, four hours. Limited to junior/senior honors program students. Research seminar organized around readings and research—Chicana/Chicano cultural studies, Chicana Chicano research. May be repeated for credit. P/NP or letter grading.

192C. Comparative Approaches to Community and Corporate Internships. (4) Same as African American Studies M195CE, American Indian Studies M195CE, Asian American Studies M195CE, and Gender Studies M195CE.) Seminar, one hour; fieldwork, equivalent to 240 hours. Limited to upper-division students under guidance of faculty mentor. Final research project required. May be repeated for credit. Letter grading.

193. Readings/Speaker Series Seminars: Chicana and Chicano Studies. (1) Seminar, one hour. Limited to undergraduate Colloquia Series students. Reading of journal articles associated with speaker topics to enliven postcolloquia discussions. May not be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP or letter grading.

194. Community Internships in Chicana and Chicano Studies. (4) Tutorial, two hours; field placement, eight hours. Limited to junior/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.

195A. Variable Topics Research Seminars: Chicana and Chicano Studies. (1) Seminar, one hour. Limited to junior/senior honors program students. May be repeated for credit. P/NP or letter grading.

197. Individual Studies in Chicana and Chicano Studies. (2 to 4) Tutorial, four hours. Requisite: courses 10A, 10B. 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 maximum of 8 units. Individual contract required. P/NP or 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.

199A. Thesis Conceptualization. Requisites: courses 10A, 10B, 101, and 89 or 189. Conceptualization and formulation of project in Fall Quarter under direct supervision of faculty mentor. May be repeated for credit. P/NP grading.

199B. Annotated Bibliography/Literature Review. Requisite: course 198A. Development of research project in Winter Quarter to produce extensive annotated bibliography with focused research on thesis topic. Weekly meetings with faculty member to discuss research and develop outline, argument, and structure of thesis. 199C. Writing and Revision. Requisite: course 198B. Writing, revision, and completion of departmental honors thesis in Spring Quarter to specification of thesis committee. Public presentation and defense of thesis required.

200. Theoretical Paradigms in Chicana and Chicano Studies. (4) Formerly numbered 201.) 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—coloniality, nationhood, inequality studies, and genders and sexualities. 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 for Chicana/chicana research—Chicana/Chicano cultural studies, Chicana feminism, queer studies, and critical legal studies. S/U or letter grading.
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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 entire empirical research cycle. Students required to collectively develop interesting research questions, conduct qualitative research, analyze original data, and write final papers that contextualize findings within existing social scientific literature. To answer research questions, students select from novel frameworks discussed in readings. S/U or letter grading.

207. Racial Geographies. (4) Seminar, three hours. Interdisciplinary examination of spatial turn in social sciences and humanities, focusing on production/reproduction of space in political-economic and social-cultural contexts. Historical geographic, historical, and ethnic, and American studies use of analytic of space to investigate questions of race in U.S. Focus on production of space, geographic approaches to racial formation, and anti-racist, place-based struggles. Study foregrounds intersections with Chicana and Chicano studies and models of relational racialization. S/U or letter grading.

208. Research Design and Methods in Chicana and Chicano Studies. (4) Seminar, four hours. Research design and methods in Xicana@ studies, including critical historical review of prior research designs and methods leading to need for Chicana@ studies. Survey of research and course methods selection techniques, analysis methods, and reporting in quantitative, qualitative, and mixed methods research in Chicana/Chicana studies. S/U or letter grading.

209. Service Learning: Theory and Practice. (4) Seminar, three hours. Limited to graduate students. Examination of approaches and theories that underpin service learning and exploration of ways in which service learning can be utilized in variety of academic disciplines (second and foreign language instruction, education, ethnic studies, labor studies, women's studies, public health, literature, public art, political science, etc.). Creation of research proposal for use of service learning in one course and development of democratic discipline of student's choice. S/U or letter grading.


C212. Latina/Latino Families in U.S. (4) Lecture, four hours; discussion, one hour (when scheduled). Study of history, class, and gender help shape experiences of Latina/Latino families in U.S. society and how her 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. Currently scheduled with course C107, Letter grading.


CM214. Chicana Feminism. (4) Same as Gender Studies CM223A; Lecture, four hours. Enforced requisite course: 10A or 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/Chicana community and dominant society. Antagonism to Anglo-European and Third World women. Concurrently scheduled with course CM110. S/U or letter grading.

C215. Transnational Women's Organizing in America. (4) Lecture, four hours. Feminist theories of transnationality, focusing on understandings 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 race and gender influence global economic policies and impact local actors and their communities. In time when people, capital, cultures, and technologies cross national borders with growing frequency, discussion and consideration 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 ministries and issues created by globalization and cultural, social, and politic. Responses envisioned by transnational organizing. Concurrently scheduled with course CM147. Letter grading.

232. Aesthetics of Place in Chicana/Chicana Expressive Culture. (4) Seminar, three hours. Examination of several place-based aesthetic traditions, including indigenous, Santería, diasporic, and Aztlán aesthetics in Chicana/Chicana visual, perform and, literature. Special focus on place as site of identity, history/memory, and creative production. S/U or letter grading.

233. Community Cultural Development in Public Art. From Local to Global. (4) Seminar, three hours; laboratory, one hour. Designed for graduate students. Artist approaches to transformations of local and global communities through aesthetic practices. Exploration of cross-disciplinary methodologies that contextualize findings within existing social scientific literature, and global transformation. Use of aesthetic and formal techniques such as characterization, plot, conflict, and historical development of Mexican American culture, and global transformation. Use of aesthetic and formal techniques such as characterization, plot, conflict, and narrative of Chicana/Chicano, visual, and performing arts as growing global militarization. Problems and issues created by globalization and cultural, social, and political responses envisioned by transnational organizing. S/U or letter grading.

234. New Social Media and Activist Art. (4) Studio, four hours. Limited to graduate students. Hands-on learning and production experience as essential to full understanding of the relationship, promotion of pragramt mode of humanistic and social scientific scholar, that prepares students to think critically and productively about media form, context, and content while learning to effectively use social media. S/U or letter grading.

235. Bilingual Writing Workshop. (4) Seminar, four hours. Limited to graduate students. Writing sample required; access to course webpage mandatory; need not be bilingual to enroll. Technical writing, 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, visual, performance, and dance that include participatory audience inclusion and foster civic dialogue and community advocacy and activism. Issues of cultural democracy, international and transnational organizing. Case studies of artist projects in community cultural development provide contemporary examples of evolving field of work and basis for critical analysis. S/U or letter grading.

258. Laughter, Political Humor, and Social Control. (4) Seminar, three hours. Limited to graduate students. Survey of range of qualitative and quantitative communication methods and findings regarding Chicana/Latina 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.

C259. Understanding Whiteness in American History and Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for graduate students. History, construction, and representation of whiteness in American society. Readings and discussions trace evolution of white identity and explore its role in history to historical conditions of race class in American history. Concurrently scheduled with course CM182. Letter grading.

250. Laughter, Political Humor, and Social Control. (4) Seminar, three hours. Limited to graduate students. Investigation of power of political humor, one social practice that constructs discriminatory hierarchies in interpersonal settings and mass media. With goal of developing set of principles and methods to investigate its construction, reading of outdisthumanistic contributions across history of its social function and power, development of classification of types and settings of political humor, and critical evaluation of re social scientific models of its nature. S/U or letter grading.

295. Critical Discourse Analytic Methods. (4) Seminar, three hours. Limited to departmental graduate students. Two critical discursive analytic (CDA) methods taught to document language of public figures. Student teams employ one method (conceptual metaphor CDA 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.

C274. Language Politics and Policies in U.S.: Comparative History. (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 of U.S., and current language and educational policy issues in U.S. Comparisons with selected international cases. Concurrently scheduled with course 593. S/U grading.


C277. 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 examine political-economic, cultural, and political interplay between globalizations (of flows of people, material goods, information, and political-cultural influence) 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. Examines 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.

M289. Studies in Chicana/Chicano Literature. (4) (Same as English M261.) Seminar, three hours. Intensive research and study of major themes, authors, and issues in Chicana/Chicano literature and culture. Examination of political, aesthetic, economic, and cultural context that emerges in Chicana/Chicano dis-
Effective oral and written communication skills

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, 4A; one natural science course selected from Civil and Environmental Engineering 58SL, Earth, Planetary, and Space Sciences 3, 15, 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, 102, 103, C104 (or Materials Science and Engineering 104), 108, 110, 120, 135A, 150, 153, 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).


Structural Engineering and Mechanics: Civil and Environmental Engineering 125, 130, 135B, M135C, C137, C142; laboratory courses: 108L, 135L, 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 courses addressing issues central to the application of environmental engineering to important environmental problems facing modern society in developed and developing countries. The minor provides students with a greater depth of experience and understanding of the role that environmental engineering can play in dealing with environmental issues.

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 133 and five courses from E5, E5A, E5B, M165, M166, Chemical Engineering C118, Environmental C159, 166, Environmental Health Sciences C125, C164.

A minimum of 20 units applied toward the minor 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 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.

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 Computer Programming with MATLAB. (4) Same as Mechanical and Aerospace Engineering M20.) Lecture, two hours; discussion, two hours; laboratory, two hours; outside study, six hours. Requisite: Mathematics 33A. Fundamentals of com-


108L. Experimental Structural Mechanics. (4) (For- merly numbered 130L.) Lecture, two hours; laboratory, six hours outside study. Requisite for core- quise: course 108. Lectures and laboratory experi- ments in various structural mechanics testing of metals (steel, aluminum, brass), high-strength plastics, and concrete. Direct tension, direct compression. Ultrasonic nondestructive evaluation. Elastic buckling of columns. Fracture mechanics testing and fracture toughness. Splitting tension and flexural tension. Focus on how these concepts are used in experimental design and sampling, data analy- sis, risk and reliability analysis, and project design under uncertainty. Topics include basic probability concepts, random variables, and analytical probability distributions, functions of random variables, esti- mating parameters from observational data, regres- sion, hypothesis testing, and Bayesian concepts. Letter grading.

110. Introduction to Probability and Statistics for Engineers. (4) Lecture, four hours; discussion, one hour; outside study. Requisites: Mathematics 32A, 33A. Recommended: course M20. Introduction to fundamental concepts and applications of probability and statistics in civil engineering, with an emphasis on using these concepts in experimental design and sampling, data analy- sis, risk and reliability analysis, and project design under uncertainty. Topics include basic probability concepts, random variables, and analytical probability distributions, functions of random variables, esti- mating parameters from observational data, regres- sion, hypothesis testing, and Bayesian concepts. Letter grading.


121. Design of Foundations and Earth Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 120. Design methods for foundations and earth structures. Site in- vestigation, including evaluation of soil properties for design, design method, including stability and settlement calculations. Design of slopes and earth retaining structures. Letter grading.

123. Advanced Geotechnical Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 121. Analysis and design of earth dams, including seepage, piping, and slope sta- bility analyses. Case history studies involving land- slips, settlement, and expansive soil problems, and design repair with focus on solutions of design acquisi- tion and interpretation systems for comparison of ex- perimental and theoretically predicted behavior. Letter grading.

130L. Engineering Geomatics. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Requisites: course 130A. Systematic site investigation, including evaluation of soil properties for design, design method, including stability and settlement calculations. Design of slopes and earth retaining structures. Letter grading.

135A. Basic Structural Statics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course M20 (or Computer Science 31), 108, Introduction to structural analysis; classification of structural elements; analysis of statically determined trusses and frames; deflec- tions in elementary structures; virtual work; analysis of indeterminate structures using force method; intro- duction to determinant method and energy con- cepts. Letter grading.

135B. Intermediate Structural Statics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Analysis of truss and frame structures using matrix force methods; matrix displacement method; analysis concepts based on theorem of virtual work; moment dis- tribution. Letter grading.

M135C. Introduction to Finite Element Methods. (4) (Same as Mechanical Engineering M168.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 130 or Me- chanical and Aerospace Engineering 156A or 166A. Introduction to basic finite element methods (FEM) and applications to structural and solid mechanics and heat transfer. Direct matrix structural analysis; weighted residual, least squares, and Ritz approximation methods; shape functions; conver- gence properties; isoparametric formulation of multi-di- mensional heat flow and elasticity; numerical integra- tion. Practical use of FEM software; geometric and an- nalysis modeling; preprocessing and matrix-assembling 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, Lim- ited enrollment. Computer-aided optimum design, construction, instrumentation, and test of small-scale models of civil engineering structures. Hands-on experi- ence in the design and testing of prototype and design elements. Lecture grading.

137L. Structural Dynamics Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisite: course 135A. Laboratory course. Study of structural dynamics, using experimental results, analytical results and code requirements to assess accuracies and limitations of calculation procedures used in structural design. Tests include quasi-static tests of structural elements (beams, columns) and dynamic tests of simple building 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 damping. Development of communication 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. Requisites: courses 135B, 142. Limited enrollment. Design considerations used for reinforced concrete systems, slabs, beams, and columns evaluated using analysis and experiments. Links between theory, building codes, and experimental results. Students demonstrate accuracy and limitations of code used in design of reinforced concrete structures. Development of skills for written and oral presentations. Letter grading.

143. Design of Prestressed Concrete Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 135A, 142. Equivalent loads and allowable flexural stresses in determine and indeterminate systems. Flexural and shear strength design, including secondary effects in indeterminate systems. Design of indeterminate post-tensioned beam using both hand calculations and commercially available computer programs. Discussion of external post-tensioning, one- and two-way slab systems. Letter grading.


150. Introduction to Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 108, 135A. Proper ties and design of wood and timber structural members subjected to flexural, shear, and axial stresses; connections, fasteners, and detailing; and light-frame wood shear walls and diaphragms. Letter grading.


152. Hydraulic and Hydrologic Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: courses 150, 151. 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 practical design components, including reading/interpreting professional drawings and documents, taking notes, teamwork, oral presentation, agency coordination, and engineering ethics. Project-based course includes analysis of alternative designs, use of enhanced lab and field experience, and preparation of written engineering reports. Letter grading.

153. Introduction to Environmental Engineering Science. (4) Lecture, four hours; discussion, one hour (when scheduled); outside study, seven hours. Recommended requisite: Mechanical and Aerospace Engineering 103. Water, air, and soil pollution: sources, transformations, effects, and processes for removal of contaminants. Water quality, water and wastewater treatment, and environmental problems. Field trip. Letter grading.

154. Chemical Fate and Transport in Aquatic Environments. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 153. Fundamental principles of chemical, and biological principles governing movement and fate of chemicals in surface waters and groundwater. Topics include physical transport in various aquatic environments, air-water exchange, acid-base equilibria, oxidation-reduction chemistry, chemical sorption, biodegradation, and bioaccumulation. Practical quantitative problems solved considering both reaction and transport with experimental work. 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 153. Biological, chemical, and physical methods used to modify water quality. Fundamentals of phenomena governing design of engineered systems for water and wastewater treatment systems. Field trip. Letter grading.

156A. Environmental Chemistry Laboratory. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisites: course 153 (may be taken concurrently). Chemistry 20A, 20B. Basic laboratory in analytical chemistry, related to water and wastewater analysis. Selected experiments include gravimetric analysis, titrmetry spectrophotometry, redox systems, pH and electrical conductivity. Concepts to be applied to analysis of real water samples in course 156B. Letter grading.

156B. Environmental Engineering Unit Operations and Processes Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: Chemistry 20A, 20B. Characterization and analysis of typical natural waters and wastewaters for inorganic and organic contaminants. Techniques include analysis of solids, nitrogen species, oxygen demand, and chlorine residue, that are used in unit operation experiments that include reactor dynamics, operation, gas stripping, chlorination, 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 hydrologic modeling and study 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 contaminant 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. Requisite: course 155. Process design of wastewater treatment plants, including primary and secondary treatment, detailed design review of existing plants, process control, and cost estimation. Letter grading.

157C. Design of Wastewater Treatment Plants. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 155. Process design of wastewater treatment plants, including primary and secondary treatment plants, design of unit operations, design of water treatment plants, hydraulics of plants, process control, and cost estimation. Letter grading.

157L. Hydrologic Analysis. (4) Lecture, two hours; laboratory, five hours; outside study, five hours. Requisite: course 150. Collection, compilation, and interpretation of data for quantification of components of hydrologic cycle, including precipitation, evaporation, infiltration, and runoff. Use of hydrologic variables and parameters for development, construction, and application of analytical models for selected problems in hydrologic analysis. Letter grading.

157S. Wastewater Treatment Processes. (4) Lecture, two hours; laboratory, five hours; outside study, five hours. Requisite: course 150. Collection, compilation, and interpretation of data for quantification of components of hydrologic cycle, including precipitation, evaporation, infiltration, and runoff. Use of hydrologic variables and parameters for development, construction, and application of analytical models for selected problems in hydrologic analysis. 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 green infrastructure for stormwater management. Students design green infrastructure based on current practices, perform engineering calculations to calculate its performance, and develop critical thinking skills needed to design innovative green infrastructure. Green infrastructure design 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 C259. Letter grading.


M165. Environmental Nanotechnology: Implications and Applications. (4) Same as Engineering M103B. Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: Engineering M101. Introduction to potential implications of nanotechnology to environmental systems as well as the application of current nanotechnology to environmental protection. Technical contents include three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, reactivity, and toxicity of nanomaterials, and (3) use of nanotechnology for energy and water production, plus environmental protection, monitoring, and remediation. Letter grading.
M166. Environmental Microbiology. (4) (Same as Environmental Health Sciences M166.) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: 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, pathogen control. Letter grading.

M166L. Environmental Microbiology and Biotechnology. (4) Laboratory, two hours; outside study, two hours. Corequisite: course M166. General laboratory and environmental microbiology, sampling of environmental samples, classical and modern molecular techniques for enumeration of microbes from environmental samples, techniques for determination of microbial activity in environmental samples, 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 practices, and delivery methods, document control, critical path method scheduling, labor management, quality management, estimating, sustainability, and cost controls. 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, highways, rail, transit, air, water. Capacity considerations, including planning, design, and operations. Components of roadway design, including horizontal and vertical alignment, cross section, and longitudinal design. Letter grading.

181. Traffic Engineering Systems: Operations and Control. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for juniors/senior public and public affairs graduate students. Application of traffic safety improvements, highway capacity analyses, signal design and timing, Intelligent Transportation System concepts, and traffic interface with railroads, urban transit, bicyclists, and pedestrians. Students will develop and present improvements and recommendations to public agency officials. Letter grading.

C182. Rigid and Flexible Pavements: Design, Materials, and Practice. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisites: courses C104, 108, 120, Materials Science 104. Correlation, analysis, and correlation 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. Utilization and correlation of different variables that influence pavement performance and highlight the influence of pavement design. Concurrently scheduled with course C282. Letter grading.

188. Special Courses in Civil and Environmental Engineering. (4) Lecture, to be arranged; discussion, to be arranged (when scheduled); outside study, 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. May be repeated for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Civil and Environmental Engineering. (2 to 8) Seminar, two to eight hours. Open to 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 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 composition and basic chemical reactions, microstructure, properties of plastic and hardened concrete, chemical admixtures, and quality control and acceptance testing. Development and testing of concrete and understanding of overall response of all civil engineering materials. By end of term, successful utilization of fundamental materials science concepts to understand, 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, eight hours. Requisites: Engineering Geology 156A or 166A. Modeling and simulation of civil engineering materials, including materials selected for project case studies. Examination of computer simulations and their applications so students can independently run simulations at scale relevant to targeted problems. Letter grading.


225. Geotechnical Earthquake Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Review of engineering problems involving soil cyclic behavior. Introduction to earthquake and liquefaction effects on soil. Analysis of earthquake-induced ground failure, including soil liquefaction, cyclic softening of clays, seismic compression, surface fault rupture, and seismic liquefaction. Effects of earthquake ground motions. Soil-structure interaction, including inertial and kinematic interaction and 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 involves application of geotechnical principles to environmental problems, application of environmental regulations, waste characterization, geosynthetics, solid waste landfills, subsurface barrier walls, and disposal of high water content materials. Letter grading.

227. Numerical Methods in Geotechnical Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 220. Introduction to basic concepts of computer modeling of soils using finite element method, and to constitutive modeling based on elasticity and plasticity theories. Special emphasis on numerical applications and identification of modeling concerns such as instability, bifurcation, nonexistence of solutions, and uniqueness of solution. Letter grading.

228. Engineering Geology: Geologic Principles for Engineers. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Engineering geology involves interpretation, evaluation, analysis, and application of geologic information to civil engineering problems. Topics include geologic characterization and classification of soil and rock units. Relationships developed 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 volcanism, seismicity, and tectonics. Evaluation and analysis of effects of geologic processes to predict their potential effect on land use, development, public health, and public safety. Letter grading.

M230A. Linear Elasticity. (4) (Same as Mechanical and Aerospace Engineering M256A.) Lecture, four hours; outside study, eight hours. Requisite: Mechanical and Aerospace Engineering 156A or 166A. Linear elasticity. Cartesian and cylindrical strain tensor; Cauchy stress tensor; strain energy; equilibrium equations; linear constitutive relations; plane elastostatic problems, holes, corners, inclusions, cylindrical and spherical problems. Boussinesq, and Cerruti. Introduction to boundary integral equation method. Letter grading.

M230B. Nonlinear Elasticity. (4) (Same as Mechanical and Aerospace Engineering M256B) Lecture, four hours; outside study, eight hours. Requisite: course M230A. Kinematics of deformation, material and spatial coordinates, deformation gradient tensor, non-
linear and linear strain tensors, strain displacement relations; balance laws. Cauchy and Pios stresses. Cauchy equations of motion, balance of energy, stored energy; constitutive relations, elasticity, hyperelasticity, thermoelasticity; linearization of field equations; solution methods. 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; energy methods; free vibrations; membrane theory of shells; axisymmetric deformations of cylindrical and spherical shells, including bending. Letter grading. 


235A. 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. Requisite: course 135A. Recommended: introduction to finite element analysis. Letter grading. 

235B. Finite Element Analysis of Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: 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. Requisite: course 135A. Recommended: introduction to finite element analysis. Letter grading. 

235C. Nonlinear Structural Analysis. (4) Lecture, four hours; outside study, eight hours. Requisite: course 235B. Consider nonlinear effects; material nonlinearities; conservative, nonconservative material behavior; geometric nonlinearities, Lagrangian, Eulerian description of motion; finite element methods in geometrically nonlinear problems; postbuckling behavior of structures; solution of nonlinear equations; incremental, iterative, programming methods. Letter grading. 


C239. 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. Emphasizes principles of single degree of freedom systems, introduction to response history and response spectrum analysis approaches for single and multiple degree of freedom systems. Axial, bending, and torsional vibration of beams. Currently 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. Requisite: course 235B. Advanced theory of reinforced concrete structures, including stress-strain relationships for plain and confined concrete, moment-curvature analysis of sections, and design for shear. Design of slenderness and load resisting design of beam-column joints. Introduction to displacement-based and design applications of strut-and-tie models. Letter grading. 

243B. Response and Design of Reinforced Concrete Structural Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 243A, 246. Information on response and behavior of reinforced concrete buildings to earthquakes. Seismic design of elastic and inelastic response spectra, role of strength, stiffness, and ductility in design, use of prescriptive versus performance-based design methodologies, 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 course for civil engineering students. Emphasis on management of water quantity. Letter grading. 

245. Earthquake Ground Motion Characterization. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Corequisite: course C137 or 246. Earthquake fundamentals, including plate tectonics, fault types, seismic waves, and magnitude scales. Characterization of earthquake source, including magnitude, range of frequencies, and time histories. 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, 235A. Spectral acceleration, response spectra, 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. 

247. Earthquake Hazard Mitigation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 130, and M237A or 246. Concept of seismic isolation, linear theory of base isolation, visco-elastic and hysteretic behavior, elastomeric bearings under compression and bending, buckling of bearings, sliding bearings, passive energy dissipation devices, response of structures with isolation and passive energy dissipation devices, static and dynamic analysis of structures, and design methods for seismically isolated structures. Letter grading. 

250A. Surface Water Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 150. In-depth study of surface water hydrology, including discussion and interrelationship of major topics such as rainfall and evaporation, soils and infiltration properties, runoff and snowmelt processes. Introduction to rainfall-runoff modeling, floods, and policy issues involved in water resource engineering and management. Letter grading. 


250C. Hydrometeorology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 150. In-depth study of hydrometeorological processes. Role of hydrology in climate system, precipitation and evaporation processes, atmospheric radiation, exchange 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 management and operation; optimal timing, sequencing and sizing of water resources projects; and multiobjective planning and conjunctive use of surface water and groundwater. Emphasis on management of water quantity. Letter grading. 

251A. Rainfall–Runoff Modeling. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250B, 253. Phenomena and mechanisms of 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 Applications. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250B, 253. Phenomena and mechanisms of 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. 

251D. Hydrologic Data Assimilation. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250C. Introduction to basic concepts of remote sensing as they relate to surface and atmospheric hydrologic processes. Applications include radiative transfer modeling and retrieval of hydrometrically relevant parameters like topography, soil moisture, snow properties, vegetation, and precipitation. Letter grading. 

252. 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 generalize and extend assimilation methods to handle changes due to assimilation 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. Enforced requisites: Engineering 110, one or more courses from Economics 1, 2, 11, 101. Economic theory and application in 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.


254B. Environmental Aquatic Inorganic Chemistry. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20B, Mathematics 31A, 31B. Development of mathematical models for simulating environmental engineering problems. Emphasis on numerical techniques to solve nonlinear partial differential equations and their application to environmental engineering problems. Letter grading.

255A. Physical and Chemical Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Prerequisites: courses 155, 254A. Review of momentum and mass transfer, chemical reaction engineering, colloidation and flocculation, granular filtrations, 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 254A, 255A. Fundamentals of environmental engineering microbiology; kinetics of microbial growth and biological oxidation; applications for activated sludge, gas transfer, fixed-film processes, aerobic and anaerobic digestion, sludge disposal, and biological nutrient removal. Letter grading.

258A. Membrane Separations in Aquatic Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: Chemistry 20B, Mathematics 31A, 31B. Application of membrane separations to desalination, water reclamation, brine disposal, and ultrapure water systems. Discussion of reverse osmosis, ultrafiltration, electrodialysis, and ion exchange processes. Emphasis on both theoretical and practical 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, engineering, and ecological principles to designing green infrastructure for stormwater management. Students design green infrastructure based on current practices, perform engineering calculations to calculate its 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 future climatic 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 250A, 250B, 250D. Current research topics in inverse problem of parameter estimation, experimental design, conjunctive use of surface and subsurface objective water resource planning, and optimization of water resource systems. Topics may vary from term to term. Letter grading.

261. Colloidal Phenomena in Aquatic Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250B, 250D. Current research topics in inverse problem of parameter estimation, experimental design, conjunctive use of surface and subsurface objective water resource 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 250B. 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 microbial ecologies and population, contaminant removal, and recent literature. Application to important and emerging environmental problems. Letter grading.

262A. Introduction to Atmospheric Chemistry. (4) Lecture, four hours; discussion, two hours; outside study, six 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; chemistry and climate. S/U or letter grading.

262B. Atmospheric Diffusion and Air Pollution. (4) (Same as Atmospheric and Oceanic Sciences M224B.) Lecture, three hours. Nature and sources of atmospheric pollutants, dispersion from point, line, and area sources; pollution dispersion in urban complexes; meteorological factors and air pollution potential; meteorological processes. 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; small-scale dispersion 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. Requisite: course 263A. In-depth treatment of selected topics involving transport phenomena at environmental interfaces between solid, fluid, and gas phases, such as aquatic sediments, pore aggregates, and vegetative canopies. Discussion of current research 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, 250A. 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, four hours. Requisite: course 254A. Geochemical modeling is an 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. Uses of modeling: groundwater pollution, mineral solubility, surface complexation, reaction path, inverse mass balance, and reactive transport modeling. Letter grading.

268A. Chemical and Engineering Geosciences Graduate Seminar. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Seminars may be organized in advanced technical problems. S/U grading.

269A. 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.

269B. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Preparation for oral qualifying examination, including preliminary research, presentation, and defense. S/U grading.

269C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Preparation for oral qualifying examination, including preliminary research, presentation, and defense. S/U grading.

270. Research 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.

279. Research and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

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**CLASSICS**

**College of Letters and Science**

100 Dodd Hall

Box 951417

Los Angeles, CA 90095-1417

**Classes**

310-825-4171

Kathryn A. Morgan, PhD, Chair

**Faculty Roster**

**Professors**

David L. Bink, PhD

Kathryn A. Morgan, PhD

Sarah P. Morris, PhD (Steinmetz Professor of Classical Archaeology and Material Culture)
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 archaeology. 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 1, 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 1, 2, 3.

Transfer Students

Transfer applicants to the Greek 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 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.

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 by the department may be substituted by petition with approval of the faculty undergraduate adviser; (3) one capstone seminar (Classics 191). All other courses in the 190 series may be substituted only by petition.

Greek BA

Capstone Major

Learning Outcomes

The Greek 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 two courses 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) Ten upper-division courses in the department (courses in related fields not offered by the department may be substituted by petition and with approval of the undergraduate adviser)—no more than three may be selected from Greek 100 through 133 or Latin 100 through 133, and Classics 198A and 198B may be applied as only one course toward the major and (2) one capstone seminar (Classics 191). All other courses in the 190 series may be substituted only by petition.

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.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: (1) Seven upper-division Latin courses, including course 110; Latin 197 and 199 may be applied only by petition; (2) three upper-division courses in classical civilization and/or ancient history (History 112A through M112E, 113A, 113B, 114A, 114B, 114C, 115). Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser; (3) one capstone seminar (Classics 191).

Honors Program
Admission
The honors program is open to all departmental majors with a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better. 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.

Requirements
All honors students are required to take Classics 191 (or an equivalent undergraduate seminar) in their junior year before beginning work on the honors thesis. Students must then enroll in Classics 198A and 198B in consecutive terms, in which they write the thesis under the direct supervision of a faculty member. They may take courses 198A and 198B concurrently or be exempt from course 198A only with approval of the faculty undergraduate adviser. In course 198A students submit an annotated bibliography and preliminary outline of their thesis. In course 198B, they submit at least one initial draft and the final revised version of the thesis. Only course 198B may be applied toward the upper-division classical civilization requirement for departmental majors.

To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A- or better.

To qualify for graduation with departmental highest honors, students must (1) have a cumulative GPA of 3.85 or better in departmental courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A.

Classical Civilization Minor
The Classical Civilization minor is designed to recognize a serious commitment to the study of the cultures and civilizations of ancient Greece and Rome. Lower-division survey courses in historical studies, classical literature, mythology, and film provide an essential introduction to the imagination and power of the ancient world. Students may fulfill upper-division requirements from a variety of courses in classical civilization and related fields, including political and social history, literature, art and archaeology, religion, mythology, philosophy, and cultural studies of ethnicity, gender, and sexuality in antiquity.

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. After a year of elementary Latin (Latin 1, 2, 3) or its equivalent, students select departmental upper-division 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, epistemology, 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 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 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 (CPPH), 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. Knowledge of Greek not required. Study of Greek life and culture from time of city’s legendary foundations to end of classical antiquity. Readings focus on selections from works of ancient authors in translation. Lectures illustrated with images of art, architecture, and material culture. P/NP or letter grading.

30. Classical Mythology. (5) Lecture, three hours; discussion, one hour. Introduction to myths and legends of ancient Greece and Roman in their historical, literary, and cultural contexts. Prerequisite: course M102A. Enforced corequisite: course M102B. Satisfies Writing II requirement. Letter grading.

40W. Reading Greek Literature: Writing-Intensive. (6) Lecture, two hours; discussion, two hours; Reading site: English Composition 3. Exploration in detail and from variety of critical perspectives of carefully selected literary texts characteristic of classical, Hellenistic, Roman, and medieval literary traditions. Satisfies Writing II requirement. Letter grading.

41W. Reading Roman Literature: Writing-Intensive. (5) Lecture, two hours; discussion, two hours. Requisite: English Composition 3. Exploration in detail and from variety of critical perspectives of carefully selected literary texts characteristic of classical and significant in late 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.

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 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 archaeology 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. Exploration 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 antiquity 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, representation of travel (both fantastic and mundane), methods of measuring time and distance across space, 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, three 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) Seminar, three hours. Focused study of one aspect of ancient Greek or Roman culture or reception of classical tradition. Topics include the reception of classical thought (art, literature, philosophy, and rhetoric) in modern culture. Prerequisite: course M102A. Enforced corequisite: course M102B.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Prerequisite: Honors contract. 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. Prerequisite: Honors contract. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

101. Discovering Romans. (5) Lecture, three hours; discussion, one hour. Knowledge of Latin not required. Study of Roman life and culture from time of city’s legendary foundations to end of classical antiquity. Readings focus on selections from works of ancient authors in translation. Lectures illustrated with images of art, architecture, and material culture. P/NP or letter grading.

199. 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. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

292. Classics

Upper-Division Courses

M114A. History of Ancient Mediterranean World. (4) (Same as History M112C) 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.

M114B. History and Monuments of Rome: Field Studies. (4) (Same as History M112E) Fieldwork, five hours. Enforced corequisite: course M114A. Examination of history, art, and monuments of ancient Rome through daily lectures and visits 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 periods. May be 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 M111A) Lecture, three or four hours. Discussion, one hour (when scheduled). Designed for seniors. Exposition and critical analysis of major thinkers such as Plato, Aristotle, Thucydides, St. Augustine, Aquinas, Machiavelli, and modern thinkers and questions as forms of government, citizenship, justice, happiness, rhetoric, religion, emotion, P/NP or letter grading.

M124. Modern Receptions of Ancient Political Thought. (4) (Same as Political Science M119A) Lecture, three hours. Discussion, one hour (when scheduled). 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.

M125. Invention of Democracy. (5) (Same as Political Science M112B) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Democracy was invented in ancient Greece as political form grounded on equality before law, citizenship, and freedom. It came into existence as struggle by demos, people, aware of its excellence and proud of its power, kratos. It became only regime capable of including all members of community while disregarding wealth, status, and dividing interests. Examination of history and theory of ancient democracy. P/NP or letter grading.

130. Race, Ethnicity, Identity in Greco-Roman World. (4) Lecture, two and one half hours. Examination of construction of racial and ethnic identities in Greco-Roman thought and world 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 Empire). P/NP or letter grading.

M133. 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, cultural, and social history in ancient world. Prerequisite: course M102A. Enforced corequisite: course M102B.

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. Involves 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.
137. Ancient Lives: Art of Biography. (4) Lecture, three hours. Study of origins, development, and practice of writing lives (i.e., 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, Hesiod’s Works and Days, 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 Athens through later antiquity. P/NP or letter grading.

143B. Ancient Comedy. (4) Lecture, three hours. Requisite: course 10 or 20. Survey 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 that involves discussion of both Greek and Roman material. May be repeated for credit with topic change. P/NP or letter grading.

M145A. Ancient Greek and Roman Philosophy. (4) (Same as Philosophy M103A.) Lecture, three hours. Study of some major works of ancient Greek and Roman philosophical texts, including those of pre-Socratics, Plato, Aristotle, and Hellenistic philosophers, with emphasis on historical and cultural contexts, their literary form, interrelations, 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: one course from M145A. Use of logical arguments, metaphysics, and ethics. 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 late 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 societyparticularly with focus on marginalized characters 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 and culture. 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. Interdisciplinary study of concept of female in ancient 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.

152A. Ancient City: Greek World. (4) Lecture, three hours. Enforced requisite: course 51A or 51B or Art History 20 or History 201A. 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 requisite: course 20 or 51B or Art History 20 or History 201A. Range of interdisciplinary approaches to study of Rome and/or cities of Italy and Roman Empire. 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.

153A. Minoan Art and Archaeology. (4) (Same as Art History M111.) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art of Aegean Civilization from circa 3000 to 1000 BC. P/NP or letter grading.

153B. Mycenaean Art and Archaeology. (4) (Same as Art History M112A.) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture of Greek world from approximately 800 through 490 BC. P/NP or letter grading.

153C. Archaic Greek Art and Archaeology. (4) (Same as Art History M112B.) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture of Greek world from approximately 490 through 350 BC. P/NP or letter grading.

153D. Classical Greek Art and Archaeology. (4) (Same as Art History M112C.) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture of Greek world from approximately 350 BC to 300 AD. P/NP or letter grading.

153E. Hellenistic Greek Art and Archaeology. (4) (Same as Art History M112D.) 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 to beginning of Roman Empire. P/NP or letter grading.

153F. Etruscan Art and Archaeology. (4) (Same as Art History M113A.) Lecture, three hours. Requisite: course 20 or 51A or 51B or Art History 20. Study of Etruscan art, culture, and civilization. May be repeated for credit with department consent. P/NP or letter grading.

M153G. Roman Art and Archaeology. (4) (Same as Art History M113B.) Lecture, three hours. Requisite: course 20 or 51B or Art History 20. Art and architecture of Rome and its Empire from circa 300 BC to AD 300. P/NP or letter grading.

155A. Roman Painting. (4) (Same as Art History M113C.) Lecture, three hours. Requisite: course 20 or 51A or 51B or Art History 20. Art of Roman Empire from 2nd through 4th century AD. (P) or letter grading.

155B. Roman Sculpture. (4) (Same as Art History M113D.) Lecture, three hours. Requisite: course 20 or 51A, 51B, Art History 20, or History 1A. Knowledge of Greek and Latin not required. General introduction to study of Roman art — architecture, sculpture, and painting. May be repeated for credit with department consent. P/NP or letter grading.

M153L. Greco-Roman Sculpture. (4) (Same as Art History CM115A.) Lecture, three hours. Art and architecture of late Roman Empire and early Christian world. P/NP or letter grading.

156. Legal Advocacy in Ancient World. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 10 or 20. Study of theory and practice of legal advocacy in classical Greece and Rome. May be repeated for credit. Letter grading.

157. Women’s History in Ancient Mediterranean. (4) Lecture, three hours. Overview of approaches to problem of women’s history in ancient Mediterranean world. Topics include law, medicine, work, religion, and family. May be repeated for credit. Letter grading.

160. Classical Myth in Literature. (4) Lecture, three hours. Use of myth in principal authors and genres of Greek and Roman literature, with examples of its influence on later literatures. May be repeated once for credit with topic change. P/NP or letter grading.

163. Ovid and Consequences. (4) Lecture, three hours. Study of Ovid’s Metamorphoses and persistence and extent of Roman poet’s influence on subsequent literature, art, and film. Close analysis of Ovid’s seminal text before turning to poem’s classical, medieval, Renaissance, and modern imitators, from Auleius to Shakespeare to Picasso and beyond. P/NP or letter grading.


165. Ancient Athletics. (4) Lecture, three hours. Requisite: course 10 or History 1A. Study of ancient Greek and Roman athletics and their connections with religion, politics, literature, and art. P/NP or letter grading.

166A. Greek Religion. (4) Lecture, three hours. Requisite: course 10 or 30. Study of religion of ancient Greece. P/NP or letter grading.


M167. Magic in Ancient World. (4) (Same as Ancient Near East M167.) 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. Coverage of beliefs in supernatural forces, rituals, and magical acts at contemporary and historical times. Focus on character and social roles of ritual experts in various cultures of ancient world. Source material includes types of magical spells, literary texts about magic and magicians, and artifacts such as amulets and ritual implements. P/NP or letter grading.

168. Comparative Mythology. (4) Lecture, three hours. Requirements: course 30, or GE Cluster 30A, 30B, and 30CW. Religious, mythical, and/or historical
traditions of Greece and Rome compared with other and with other traditions worldwide. P/NP or letter grading.

169. Sex in Ancient World. (4) Lecture, three hours. Requisite: course 10 or 20 or History 1A. 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 a broad range of ancient texts in translation. P/NP or letter grading.

M170C. Power and Imagination in Byzantium. (4) (Same as History M118C) Lecture, three hours; discussion, one hour. Requisite: course 116A, 116B. Designed for juniors/seniors. Study of relations of authority and intellectuals in highly centralized Byzantine Empire. Topics include criticism of emperor, iconoclasm, 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 Central and South American 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 concerns. This course acts as a conduit, a form of mediating the study of one area by examining epic traditions of Central and South America, (mediated through European models that preceded and helped shape them) and their conscious engagement with classical tradition, through examples of both neo-Latin productions and vernacular poetry in Spanish and Portuguese. P/NP or letter grading.

180. Introduction to Classical Linguistics. (4) Lecture, three hours. Introduction to linguistic approach to Greek and Latin, including Indo-European background, etymology, pronunciation, alphabets, sociolinguistics (dialects, bilingualism), and applications to classical literature. 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.

190. Research Colloquia in Classics. (1 Seminar, one hour. Limited to juniors/seniors. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members responsible for work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

191. Capstone Seminar. Classics. (5) Seminar, three hours. Requisites: courses 10, 20, at least four upper-division major courses. Limited to declared junior/senior departmental majors; minors may be admitted with consent of instructor. Topical research seminar on important themes, periods, genres of ancient Greek and Roman world, intended to provide students with opportunity for serious engagement with research in discipline under close faculty supervision. Readings, discussions, oral presentations, and final research paper or project. May be repeated for credit. Letter grading.

193. Seminar in Classics. (1) Seminar, one hour. Limited to undergraduates. Group discussion of readings and topics selected from current issues in classics and related disciplines. May be repeated for credit. P/NP grading.

197. Independent Studies in Classics. (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 readings and topics depend on subject matter required. May be repeated for credit. Individual contract 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 mentor. Culminating paper or project may be required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


201B. Topics in Ancient History: Roman World. (2 or 4) Seminar, three hours. Introduction to basic methods and approaches to study of Roman history by intensive examination of selected topics, including readings of ancient texts and modern scholarship. S/U or letter grading.

M218. Paleography of Latin and Vernacular Manuscripts, 900 to 1500. (4) (Same as English M215, French M210, or 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 palaeography, (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 manuscripts and vernacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.

220A. Interfaces: Transmission of Roman Literature. (2 or 4) Seminar, three hours. Examination of transmission of Latin classical literature in late antiquity, Middle Ages, and Renaissance to understand processes by which Latin literature has been preserved, 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: locating manuscripts; collation; establishing texts; selecting right reading on basis of knowledge of context, of language of author, and of sources; emendations; formulation of apparatus and sources; textual apparatus in context. S/U (2-unit course) or letter (4-unit course) grading.

245. Computing and Classics. (2 or 4) Seminar, three hours. Introduction to processing and analysis of digitized texts of classical authors for purposes of literary history and criticism. 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 Literature. (2 or 4) Seminar, three hours. Interdisciplinary study on topics of ancient Greek and Roman culture and/or 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—Greco-Roman Architecture. (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 Archaeology—Greco-Roman 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—Greco-Roman 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 with consent of instructor. S/U or letter grading.

C251E. Archaeological Field Techniques. (12) Offered in conjunction with at least one classical archaeological course. Training in techniques of archaeological research in field, including topographic and area survey, mapping and recording, excavation, analytical. Conducted in Mediterranean area. Concurrently scheduled with course C215E. S/U or letter grading.

252. Topography and Monuments of Athens. (2 or 4) Lecture, two or four hours. Detailed studies in topography and monuments of Athens, combining evidence 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 topography and monuments of Rome, combining evidence of literature, inscriptions, and actual remains. S/U or letter grading.

260. Topics in Ancient Religion. (2 or 4) Seminar, three hours. S/U or letter grading.

267. 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. Undergraduate or graduate seminar. Discussion of chief texts in literary theory and criticism for readers of classical literature, 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 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.

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 Latin undergraduate courses. Reading assignments 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 coop. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.
Lec 597. Study for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U 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.
4. 8A-8B-8C. Elementary Modern Greek. (4–4–4) Lecture, three hours. Course 8A is 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.
5. Reading Scholarly Modern Greek. (4) Lecture, two and one half hours. Enforced requisite 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 texts necessary to comprehend written academic Greek. Students gain familiarity with various academic genres in Greek (among others, articles, chapters, reviews, lecture transcripts). 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 their competence in modern Greek reading, translating, and writing activities. Familiarization with basic aspects of modern Greek life and culture. P/NP or letter grading.
6. 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 writing. 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.
7. Elementary Modern Greek. (5) Lecture, 18 to 19 hours. Eight-week intensive introduction to principles of speaking, reading, and writing modern (demotic) Greek. Offered in summer only. P/NP or letter grading.
8. 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.
9. 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. 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.
11. 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.
12. 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. Consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
100. Readings in Greek Prose and Poetry. (4) Lecture, three hours. Requisite: course 20. 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.
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.
107. Hesiod. (4) Lecture, three hours. Requisite: course 100. Reading of Theogony and excerpts from 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, Hellenica, or Oeconomica—in Greek. P/NP or letter grading.
121. Plato. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

131. Readings in Later Greek. (4) Lecture, three hours. Requisite: course 100. Topics vary from year to year and include “Longinus,” On Sublime; Marcus Aurelius; Arrian; Second Sophistic; Plutarch; later epic; epigram; epistolography Greek. P/NP or letter grading.
133. Readings in Byzantine Literature. (4) Lecture, three hours. Requisite: course 122. 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. P/NP or letter grading.
190. Directed Research 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.
191. 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.

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 (2-unit course) or letter (4-unit course) grading.
201A-201B. Homer: Iliad. (2 or 4 each) Lecture, three hours. Course 201A is requisite to 201B. S/U (2-unit course) or letter (4-unit course) grading.
202A-202B. Homer: Odyssey and Epic Cycle. (2 or 4 each) Lecture, three hours. Course 202A is requisite to 202B. S/U (2-unit course) or letter (4-unit course) grading.
206A-206B. Sophocles. (2 or 4 each) Lecture, three hours. Course 206A is requisite to 206B. S/U (2-unit course) or letter (4-unit course) grading.
207A-207B. Euripides. (2 or 4 each) Lecture, three hours. Course 207A is requisite to 207B. S/U (2-unit course) or letter (4-unit course) grading.
208A-208B. Aristophanes. (2 or 4 each) Lecture, three hours. Course 208A is requisite to 208B. S/U (2-unit course) or letter (4-unit course) grading.
209A-209B. Seminars: Hellenistic Poetry. (2 or 4 each) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.
Upper-Division Courses

100. Intermediate Latin: Introduction to Reading Latin (4) Lecture, three hours. Enforced requisite: course 20 (may be taken concurrently). Introduction to developing skills of reading longer, continuous passages of original Latin prose and/or poetry texts, with attention to literary and cultural background. Course is requisite to advanced reading courses. May be repeated for credit twice with change of assigned readings and with consent of instructor. P/NP or letter grading.


103. Lucretius. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

104. Ovid. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

105A. Beginning Vergil: Selections from Aeneid I-VI. (4) Lecture, three hours. Requisite: course 100. Reading of one or more books from first half of Aeneid, designed especially for students with only limited experience in reading Latin poetry. May be repeated for credit with change in readings and consent of instructor. P/NP 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. P/NP or letter grading.

106. Catullus. (4) Lecture, three hours. Requisite: course 100. Readings from author(s) of Roman satire, including Horace, Persius, and Juvenal, or related satiric 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.


116. Roman Novel. (4) Lecture, three hours. Requisite: course 100. Reading and discussion of either Petronius' Satyricon or Apuleius' Metamorphoses and development of genre of prose novel in antiquity. May be repeated for credit with change in author and text. P/NP or letter grading.

117. Sallust. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

118. Seneca. (4) Lecture, three hours. Requisite: course 100. Selection of course texts. May be repeated for credit with topic change. P/NP or letter grading.

119A. Readings in Roman Prose. (4) Lecture, three hours. Requisite: course 100. Readings of selected Roman prose author(s). Topics may vary from year to year and may be organized in terms of chronology (Republican or imperial), literary genre (Roman biography, antiquarian learning, or science), and/or theme. May be repeated for credit with topic change. P/NP or letter grading.
110B. Readings in Roman Poetry. (4) Lecture, three hours. Requisite: course 100. Readings of selected Latin poet and author. Topics may vary from year to year and may be organized in terms of chronology (Republican or imperial), epic, lyric, elegy, and/or theme. May be repeated for credit with topic change. P/NP or letter grading.

120. Vulgata. (4) Lecture, three hours. Requisite: course 100. Reading of selected chapters of St. Jerome's translation of Bible, with emphasis on use of classical features of Latin, P/NP or letter grading.

121. Patristic Texts. (4) Lecture, three hours. Requisite: course 100. Reading and discussion of one or more Patristic texts (especially works of Ambrose, Augustine, and/or Jerome), with emphasis on specific features of patristic, as opposed to classical, Latin. P/NP or letter grading.


133. Postclassical Poetry (4) Lecture, three hours. Advanced readings of selected texts in postclassical Latin poetry. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate work. Exploration of 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 work with lecture course instructor to explore topics of 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 Latin. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between instructor 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 in Latin. (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

200A-200B-200C. History of Latin Literature (4-4-4). Lecture, three hours. Lectures on history of Latin literature, supplemented by reading of Latin texts in original language. Each course may be taken independently for credit. S/U or letter grading.

201. Roman Epic Tradition. (2 or 4) Seminar, three hours. Epic poet other than Vergil (e.g., Ennius, Livius, Valerius Flaccus, Statius, Titus Iulius), 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. Vergili’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: Vergili’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 reading of Vergil’s text; careful evaluation of intellectual 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. Attraction 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 repeated for credit. S/U (2-unit course) or letter (4-unit course) grading.

215. Seminar: Roman Novel. (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.

216. Roman Rhetoric. (2 or 4) Seminar, three hours. Close study of one rhetorical text (e.g., Rhetorica ad Herennium, Cicero’s De Oratore, Seneca’s Controversiae 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.

221B. Cicero’s Philosophical Works. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

221B, 221C. Cicero: De Natura 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.

222. Seminar: Roman Stoicism. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

223. Lucretius. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

224. Romans. (2 or 4) Seminar, three hours. Survey of history of Roman literature. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

225. Seminar: Roman Historians. (2 or 4) Seminar, three hours. Study of one or several Roman historians. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

229. Sight Translation. (2) Seminar, two hours. Close study, with attention to literary and historical background, of work of one or several prose authors who flourished between death of Tacitus and fall of Roman Empire. May be repeated for credit with change in author. S/U or letter grading.

230. Topical Studies of Ancient Rome. (2 or 4) Seminar, three hours. Study in development of book hand in Latin manuscripts earlier than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.

231A-231B-231C. Seminars: Medieval Latin. (2 or 4 each) Seminar, three hours. Preparation: at least two upper-division Latin courses. Required: a two-hour test or a two-hour essay. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

235. Late Latin Poetry. (2 or 4) Seminar, three hours. Study of Latin poetry and characteristics of Latin; its development into early forms of Romance languages. S/U or letter grading.


243. Seminar: Latin Paleography. (2 or 4) Seminar, three hours. Study of operation of book hand in Latin manuscripts earlier than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.

245. Neo-Latin. (2 or 4) Seminar, three hours. Preparation: at least two upper-division Latin courses. Required: a two-hour test or a two-hour essay. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

495. College Teaching of Latin. (2) Seminar, to be arranged. Preparation: appointment as teaching assistant. Methodology of instruction in conjunction with classroom practice. May be repeated for credit. S/U grading.

597. Study for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Cluster Program / 297

Cluster Program
College of Letters and Science
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Anthony R. Frischia, PhD, Director

Faculty Committee
Sara F. Burdorff, PhD (Undergraduate Education Initiatives)
Seth H. Chandler, PhD (Integrative Biology and Physiology)
Raffaella D’Auria, PhD (Environment and Sustainability)
Jeffrey L. Decker, PhD (English)
Scope and Objectives
Cluster courses are an option for satisfying both general education and Writing II requirements. Clusters are yearlong, collaboratively taught, inter-disciplinary courses that focus on a topic of timely importance, such as the global environment or intercultural dialogues. The cluster courses are an option for satisfying both General Education Clusters M1A-M1B-M1CW. Cluster courses are an option for satisfying both General Education Clusters 20A-20B-20CW. 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.

Clustering courses 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 year-long cluster, students complete 40 to 50 percent of their general education course requirements and fulfill the Writing II requirement. Cluster students are eligible for three terms of honors credit, with the spring quarter seminar granting Honors Colleague credit.

For the current cluster course offerings and general education credit, refer to the cluster program website.

Clusters
Lower-Division Courses
M1A-M18-M1CW. Food: Lens for Environment and Sustainability. (6–6–6) (Formerly numbered General Education Clusters M1A-M1B-M1CW) (Same as Environment M1A-M1B-M1CW) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. Letter grading.
M1A-M18. Lecture, three hours; discussion, two hours. Food as lens for local and global environmental and sustainable 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. Satisfies Writing II requirement.

20A-20B-20CW. Interdisciplinary 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. Examination of nature and meaning of race in American society through study of history, literature, and law. Consideration 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, debate, 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 writings of Rousseau and Wollstonecraft to Foucault and Baudrillard in historical context and from perspectives of academic specialists 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 theories and debates that 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 as well as its consequences. Critical examination of globalization theories, international institutions of trade, finance, governance, and impacts 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 3. Topics may include political economy, 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 the history 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 3. Topics include origins and ideas of performance, art and performance, and music as cultural expression. Satisfies Writing II requirement.

24A-24B-24CW. Work, Labor, and Social Justice in U.S. (6–6–6) (Formerly numbered General Education Clusters 24A-24B-24CW) (Same as Labor and Workplace Studies M24A-M24B-M24CW) Course 24A is enforced requisite to 24B, which is enforced requisite to 24CW. Limited to first-year freshmen. Letter grading. 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 24B. Topics include labor law/history, gender, race, and workplace. 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. Introduc- tion to social determinants of health, with focus on cultural, historical, socioeconomic, public health, medical, political, and artistic context of poverty in Latin America. In-depth examination of major local, regional and responses to health inequities. Exploration of major trends and debates that have shaped and continue to define issues related to poverty and health in region. 26B. Lecture, three hours; discussion, two hours. Enforced requisite: course 26A. Responses to 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 health professionals. Introduction to tools to promote health, such as service delivery, health 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 discuss, and then generate policy solutions to create 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.

40A-40B-40CW. Chinese Classics, Their Legacy in East Asia, and Reimagination in Modern Times. (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. 40A-40B. 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 constructions of various stories of myth. 40CW. 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.

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. Lecture, three hours; discussion, two hours. Exploration of causes, dynamics, and consequences of political violence. Political violence can include any form of extra-legal warfare inciting genocide, civil war, riots and pogroms, terrorism and state repression, revolution and counter-revolution, and more. Political violence is not modern phenomen-
M72A-M72B-M72CW. Sex from Biology to Gendered Society. (6–6–6) (Formerly numbered General Education Clusters M72A-M72B-M72CW.) (Same as Communication M72A-M72B-M72CW, Society and Genetics M72A-M72B-M72CW, and Sociology M72A-M72B-M72CW. Course M72A is enforced requisite to M72B, which is 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; these hours. Enforced requisite: course M72A. 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. Lecture, three hours; discussion, two hours. Human brain is most complex structure in universe and last major organ system to be understood. Our brains give us power to see and hear, learn and remember, interpret others, and act purposefully in our environment. We can lose these abilities that we take for granted, naturally or as a result of injury or disease. Brain function from historical, biological, psychological, and philosophical perspectives to enable students to better understand organ responsible for all mental processes and behavior in health and disease and to encourage them to think and write critically about interrelation of neurobiological, philosophical, and psychological factors that control behavior and our experiences as human beings. Use of historical perspective to better understand how field of neuroscience and study of brain have emerged over time. 73CW. Special Topics. Seminar, three hours. Enforced requisite: course 73B. Topics include mental illness, neuroscience in popular culture, and neuroscience of decision making. Satisfies Writing II requirement.

80A-80B-80CW. Frontiers in Human Aging. (6–6–6) (Formerly numbered General Education Clusters 80A-80B-80CW.) Course 80A is enforced requisite to 80B, which is enforced requisite to 80CW. Limited to first-year freshmen. Letter grading. 80A-80B. Lecture, three hours; discussion, two hours. Examination of aging process from vantage points of multiple disciplines, including biology, psychology, sociology, ethics, and public policy. Study of biomedical and biological aging and psychological, social, and ethical implications as human beings. 80CW. Special Topics. Seminar, three hours. Enforced requisite: course 80B. In-depth examination of gender and aging, cellular aging, cancer, and aging of brain. 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: Debates and Writing. (B) Lecture, three hours; discussion, two hours. Course 180A is requisite to 180B designed for transfer students. 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 attendant on excavation, preservation, and presentation of these materials to different publics, and what all of this means to those whose heritage is being studied and/or exhibited through use of many rich cultural resources on and off campus. Examination of topics related to cultural heritage, with strong focus on debate and writing. Writing of weekly short essays or Op-ed pieces based on what students have learned. Letter grading.

180B. Cultural Heritage and Representation of Identity: Special Topics. (8) Seminar, three hours. 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 attendant on excavation, preservation, and presentation of these materials to different publics; and what all of this means to those whose heritage is being studied and/or exhibited through use of many rich cultural resources on and off campus. 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.

COMMUNICATION

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Keri L. Johnson, PhD, Chair

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Professors Emeriti
William W. Johnson, PhD
Paul I. Rosenthal, PhD
John H. Schumann, PhD

Associate Professors
PJ Lamberson, PhD
Francis C. Steen, PhD
Anne S. Warlaumont, PhD

Assistant Professors
Tao Gao, PhD
Jungseock Joo, PhD
Georgia C. Kornell, PhD

Senior Lecturers
Marde S. Gregory, MA, Emeritus
Thomas E. Miller, MA
Steven M. Peterson, PhD
Michael W. Suman, PhD
Paul Von Blum, JD, Emeritus

Michael W. Suman, PhD

Thomas E. Miller, MA

Steven M. Peterson, PhD

Paul Von Blum, JD, Emeritus

Communication / 299
Scope and Objectives
The major in Communication is an interdisciplinary curriculum leading to a Bachelor of Arts degree. It seeks to provide students with a comprehensive knowledge of the nature of human communication, the symbol systems by which it functions, the environments in which it occurs, its media, and its effects. Employing critical and empirical approaches, the major draws its resources from the social sciences, humanities, and fine arts. Four areas of focus are offered: communication technology and digital systems, interpersonal communication, mass communication and media institutions, and political and legal communication.

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

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, Communication M70, Linguistics 1, 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:

- Political and Legal Communication—Core courses: Communication 101, 160, 162, 170; elective courses: Communication 102, 163, 164, 167, 168, 171, M172, M176, 178, 184, 188D, 191D, Political Science M141A, M148 (or Sociology 133), 141C, 141E.

Required Practicum Course: One course from Communication 101, 102, 103A, 103B, 104, 109, 111, 116, M117, 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 UC 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) completing four courses (at least one of which must be in communication) from Communication 129, 131, 154, 155, 156, 158, Program in Computing 10C, 20A, 20B, 40A. Courses need to be completed with a grade of C—or better 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 Counseling Office). Students graduate with a bachelor’s degree in Communication 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 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 spe-
The document includes detailed descriptions of courses offered at the University of California, Los Angeles (UCLA), covering various topics within the fields of Communication, Mass Communication, and Gender Studies. The courses range from freshman seminars to upper-division seminars, covering topics such as Fiat Lux Freshman Seminars, Communication Theory, Gender and Communication, Entrepreneurial Communication, and more. The courses are designed to introduce students to current research in these fields and to develop their critical thinking and research skills.
115. Interpersonal Dynamics. (4) Lecture, three hours. Survey of recent scientific approaches to dyadic communication and relationships. Surveys selection of experimental, observational, and quantitative methods, and how they can be applied to key issues in dyadic and interpersonal relationships. Topics include recent technological 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. Consideration also 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; (2) the nature of these processes as they apply 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 M117.) Lecture, four hours. Art and science of negotiation in securing agreements between independent parties. Theory and practice that underscores successful negotiation. Experiential course in which students learn broad array 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.

118. Language and Music. (4) Formerly named Communication Studies 118.) Lecture, three hours. Evolution of language and music. (4) Formerly Sociology C125.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Practices of communication and social interaction in number of major contexts in contemporary society. Setting varies but may include emergency services, police and courts, medicine, news interviews, and political oratory. P/NP or letter grading.

120. Evolution of Interpersonal Communication. (4) Formerly numbered Communication Studies 120.) Lecture, four hours. Examination of current issues in interpersonal communication from perspectives of evolutionary psychology and biology. Topics include coevolution of language and kinship, verbal and non-verbal communication, courtship behavior, miscommunication between sexes, implied language use, and deception. Letter grading.

121. Animal Communication. (4) Formerly numbered Communication Studies M121.) (Same as Anthropology M128Q.) Lecture, three hours. Designed for Anthropology and Communication Studies majors. 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.

125. Talk and Social Institutions. (4) Formerly numbered Communication Studies M125.) (Same as Sociology C125.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Practices of communication and social interaction in number of major contexts in contemporary society. Setting varies but may include emergency services, police and courts, medicine, news interviews, and political oratory. P/NP or letter grading.

126. Evolution of Interpersonal Communication, (4) Formerly numbered Communication Studies 126.) Lecture, four hours. Examination of current issues in interpersonal communication from perspectives of evolutionary psychology and biology. Topics include coevolution of language and kinship, verbal and non-verbal communication, courtship behavior, miscommunication between sexes, implied language use, and deception. Letter grading.

M127. Animal Communication. (4) Formerly numbered Communication Studies M127.) (Same as Anthropology M128Q.) Lecture, three hours. Designed for Anthropology and Communication Studies majors. 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.

128. Play and Entertainment. (4) Formerly numbered Communication Studies 128.) Lecture, three hours. Entertainment is significant component of both education and social disruptions. Examination of how popular Bollywood cinema materializes in large audiences about history, society, and politics. Critical evaluation of these works to understand power and limitations of films as social commentary. Letter grading.

129. Gaming Mind. (4) Formerly numbered Communication Studies 129.) Lecture, three hours. Exploration of various aspects of online computer games that are becoming increasingly popular and technically sophisticated, with focus on what people learn from them, and whether learning is purposeful. Letter grading.

130. Scientific Language. (4) Lecture, three hours. Introduction to scientific foundations of psycholinguistics, and connections to applied issues in communication. Survey of various scientific methods, and how they are applied to key issues in language and communication. Discussion of how we can measure meanings of words, complexity of sentences, and study of how these are processed (and produced) during communication. Involves various exercises, including learning some scientific tools that can be used both in future research and in field. Letter grading.


132. Multicultural Television. (4) Formerly numbered Communication Studies 132.) Lecture, four hours. Critical evaluation of television programming and scholarly research of new developments in television. Application of research findings by students to real-world contexts such as current issues, papers, and presentations. Letter grading.

133. Decoding Media Strategies. (4) Formerly numbered Communication Studies 133.) Lecture, three hours. Today’s mass media are thriving business, central part of cultural identity, and vital component of democracy. How do these different and often conflicting functions determine content of mass media? Examination of how mass media participate in commercial, educational, entertainment, and political culture. P/NP or letter grading.

134. Evolution of Mass Media Images. (5) Formerly numbered Communication Studies 146.) Lecture, four hours; discussion/laboratory, one hour. Analysis of how television and other mass media portray mass media image, and a wide range of issues. P/NP or letter grading.

135. 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 American life and culture have influenced sitcoms. Exploration of issues of family, race, and ethnicity, class and economy, and political culture. P/NP or letter grading.

136. Media Portrayals of Gay and Lesbians. (4) Formerly numbered Communication Studies 136.) Lecture, three hours. How mass media have portrayed gays and lesbians and why. Media's depiction, portrayal, and handling of homosexuality, with particular focus on how gays and lesbians have been negatively stereotyped, portrayed unrealistically, and often not portrayed at all. Exploration not only of how gays and lesbians have been represented, but also why certain portrayals have tended to dominate. P/NP or letter grading.
148. Integrated Marketing Communications. (4) (Formerly numbered Communication Studies 148.) Lecture, three hours. Examination of key concepts and methods in marketing communications in both traditional and digital media. Development and execution of communications strategies, with primary emphasis on consumer insight, branding, market segmenting 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 and Workplace Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/senior Communication Studies and Gender Studies majors and Labor and Workplace Studies. 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 groups are portrayed and often misrepresented in media. Investigation and employment of theories of media. Use of feminist theories for understanding ideological nature of stereotypes and politics of representation through use of media, guest presentations, lectures, class discussions, and student presentations. Introduction to theory and practice of cultural studies. Letter grading.


151. Computer-Mediated Communication. (4) (Formerly numbered Communication Studies 151.) Lecture, four hours. Examination of how computer technology, particularly Internet, has influenced patterns of human communication. History and distinctiveness of computer-mediated communication (CMC). CMC's influence on modern economic, political, and social interaction. Letter grading.


M153. Media and Aggression against Women. (4) (Formerly numbered Communication Studies M153.) (Same as Gender Studies M153.) Lecture, three hours. Social scientific study of intersection between mass media and aggression against women. Particular consideration of sexual aggression, pornography, and characteristics of aggressive men. Analysis of interaction between nature and nurture. 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 shopping, dating, news, entertainment, and trade. Exploration of history, social effects, and possible futures of digital communication. Letter grading.

155. Privacy, Intimacy, and the Digital Divide. (4) (Formerly numbered Communication Studies 155.) Lecture, three hours. Review of origin and modern development of artificial intelligence (AI) and its recent breakneck growth, with emphasis on its impact on the media industry (personization, recommendation, and target advertising). Study includes technical merits and controversies such as ethical and moral issues of AI, privacy concerns in data collection, and fair use of AI in general. P/NP or 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 entertainment. Critical investigation of current popular social networking websites (e.g., Facebook, Myspace, Friendster, You Tube) 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, political, and social perspectives, and how entities cultivate celebrity for financial gain. Topics include celebrity gossip and privacy, news coverage, 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 in history of communication 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 innovation. Letter grading.

M159. Pornography and Evolution. (4) (Formerly numbered Communication Studies M159.) (Same as Gender Studies M159.) Lecture, three hours. Discussion of theories of evolution as relationship exists and effects its use of topic to illustrate value of evolutionary theory to social sciences generally. Letter grading.

160. 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 with established political institutions; state papers; deliberative discourses; electoral campaigns. Letter grading.

161. Public Diplomacy. (4) (Formerly numbered Communication Studies 161.) Lecture, three hours. Exploration of theories and research on why pornography exists and its effects. Use of topic to illustrate value of evolutionary theory to social sciences generally. Letter grading.

162. Presidential Communication. (4) (Formerly numbered Communication Studies 162.) Lecture, three hours. Examination of presidential communication environment, resources, and strategies, as well as how 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 the industry, with primary focus on business, legal, and free speech-related concepts. P/NP or letter grading.

165. Agitational Communication. (4) (Formerly numbered Communication Studies 165.) (Same as Labor and Workplace 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 how motivation and creativity interact with business interest, research, and policies in producing entertainment for media market. Letter grading.

167. Sex, Politics, and Race: Free Speech on Campus. (4) (Formerly numbered Communication Studies 167.) Lecture, three hours. Focus on concept of freedom of expression on campus during postsec- ondary education. How First Amendment, case law, and federal and state statutes affect one's ability to speak at work. Conflict between discrimination law and ability to speak freely at work as well as meaning and limits of free speech on campus. Letter grading.

168. Free Speech in Advertising. (4) (Formerly numbered Communication Studies 168.) Lecture, three hours. Exploration of First Amendment and commercial speech within context of product and service adver- tising (e.g., vice products such as tobacco, alcohol, illegal drugs, gambling, and political advertisements). Examination of when, where, and how (time/place/manner) restrictions imposed on advertising and commercial speech, with specific ref- erence to shopping malls, news tabloid racks, and billboards, among other places. 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 Colloquium M179.) Seminar, three hours. Study of tradition 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. Focus on concept of freedom of expression in workplace and how First Amendment, case law, and federal and state statutes affect one's ability to speak at work. Conflict between discrimination law and ability to speak freely at work as well as meaning and limits of free speech on campus. Letter grading.

172. Free Speech in Workplace. (4) (Formerly numbered Communication Studies 172.) Lecture, four hours. Focus on concept of freedom of expression in workplace and how First Amendment, case law, and federal and state statutes affect one's ability to speak at work. Conflict between discrimination law and ability to speak freely at work as well as meaning and limits of free speech on campus. Letter grading.

175. Criticism and Public Arts. (4) (Formerly numbered Communication Studies 175.) Lecture, four hours; discussion, one hour (when scheduled). Introduction to methods and problems of criticism in public art. Survey of selected critical methods: formalist, analogical, pragmatic, and aesthetic criticism. Topics include definition of art and criticism, aesthetic media, genre and resources of film, television, theater, and public discourse, fine art and method, problems of critical judgment. Letter grading.

176. Visual Communication and Social Advocacy. (4) (Formerly numbered Communication Studies 176.) (Same as Labor and Workplace Studies M176.) Lecture, four hours. Visual communication reaches diverse audiences in communicating major social and political topics. Cartoons, posters, murals, and documentary photography have had powerful world im- pact. Survey of all four genres of visual communica- tions as features of modern mass media. Letter grading.


179. Images of U.S. (4) (Formerly numbered Communication Studies 179.) Lecture, four hours. Focus on concept of freedom of expression on campus during postsec- ondary education. How First Amendment, case law, and federal and state statutes affect students and teachers' abilities to speak on and off campus. Discus- sion of harassment and campus speech codes, campus demonstrations, student publications, stud- ent conduct rules, and the acceptability of art and academic freedom. P/NP or letter grading.
182. 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. Letter grading.

183. Media and Mind. (4) (Formerly numbered Communication Studies 183.) Lecture, three hours. Investigation of media persuasion and entertainment appeal through three intersecting approaches: study of cognition, reflection on personal experience, and hands-on analysis of television, film, and radio. Topics include perception, imagination, narrative, play, emotion, and dreams. Students collaborate with each other to assemble media critiques and create their own short stories. P/NP or letter grading.

184. Abortion, Death Penalty, and Gun Control: Arguing Contemporary Social Issues. (4) (Formerly numbered Communication Studies 184.) Lecture, four hours. Focus on variety of hot-button contemporary social issues to provide students with knowledge of arguments on both sides of issues covered, with emphasis on sound reasoning to support various arguments. P/NP or letter grading.

185. Field Studies in Communication. (2 to 4) (Formerly numbered Communication Studies 185.) Lecture, two hours. Designed for juniors/seniors. Field work in centers and organizations participate. Limited to eight. Eighteen hours seminar sessions and spend seven hours in approved community settings each week for each 2 units of credit. May be taken for maximum of 4 units per term. P/NP grading.

187. Ethical and Policy Issues in Institutions of Mass Communication. (4) (Formerly numbered Communication Studies 187.) Lecture, three hours. Intensive 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, tourism) and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

188A. Variable Topics in Mass Communication and Media Institutions. (4) (Formerly numbered Communication Studies 188A.) 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. Letter grading.

188B. Variable Topics in Interpersonal Communication. (4) (Formerly numbered Communication Studies 188B.) 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. 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.

188E. Variable Topics: Practicum. (4) (Formerly numbered Communication Studies 188E.) Lecture, three hours. Practicum. Topics: preparation for selected topics in communication, Reading, writing, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced prerequisite: course 188SA. 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 Honors Seminars. (1) (Formerly numbered Communication Studies 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 students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) (Formerly numbered Communication Studies 189HC.) 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. 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. Reading, 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 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 be repeated for credit. P/NP grading.

195. Summer Internships. (4) (Formerly numbered Communication Studies 195.) Tutorial, to be arranged. Internship in supervised setting in community agency where students meet with adviser and provide final reports of their experiences. May be repeated for credit. Individual contract with supervising faculty member required. Offered in summer only. P/NP 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 tangible 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. Requisites: 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 relevant progress to supervising faculty member. 198C. Requisite: course 198B. Completion of research developed in courses 198A, 198B. Presentation of honors project to supervising faculty member.

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 Course

375. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered Communication Studies 375.) Sem. to be arranged. Preparation of person 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.

COMMUNITY ENGAGEMENT AND SOCIAL CHANGE

Interdisciplinary Minor
College of Letters and Science
A265 Murphy Hall
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Community Engagement and Social Change 310-825-7867
E-mail contact
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Community Engagement and Social Change / 305

Faculty Committee
Joel D. Aberbach, PhD (Political Science)
Barbara Drucker, MFA (Art)
Michelle F. Erai, PhD (Gender Studies)
Jennifer A. Jay, PhD (Civil and Environmental Engineering, Environment and Sustainability)
Michael C. Lens, PhD (Urban Planning)
Reynaldo F. Macias, PhD (Chicana and Chicano Studies, Education)
Meredith Phillips, PhD (Public Policy, Sociology)
Robert Chao Romero, JD, PhD (Asian American Studies, Chicana and Chicano Studies)
Olga T. Yokoyama, PhD (Humanities)
David K. Yoo, PhD (Asian American Studies, History)

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 the interwoven 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.

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 endorsed by a faculty sponsor, and submit a written statement describing how civic engagement relates to their academic interests or career goals. Applications are available in A265 Murphy Hall.

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 50SL 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, 19B, with grades of B or better. Students must have completed the core courses requirement, and at least one other community-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 satisfy the minor’s capstone requirement. Petitions are reviewed on a case-by-case basis, and are assessed by how closely the major capstone requirement aligns with desired learning outcomes associated with 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 or 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 service learning 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.
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 on a minor, where students will examine issues from all majors who are interested in theories and concepts of civic engagement within undergraduate education. Letter grading.

102SL. Reflections on Alternative Spring Break. (2) (Formerly numbered Civic Engagement 102SL) 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 identity formation, with specific attention to reflection on Alternative Spring Break experiences. P/NP or letter grading.

105SL. Client-Based Program Evaluation and Research. (3) (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 practice theory and 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 literature program. Service-learning course on early childhood education and civic engagement. Overview of child development theory as well as examination of policies and systems that impact practice of preschool education, history and future of civic engagement movement designed to engage diverse groups of committed stakeholders in reaching common goal. P/NP or letter grading.

110SL. Civic Engagement Perspectives. (5) (Formerly numbered Civic Engagement 110SL) Same as Political Science M110SL) Lecture, three; 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 and formation of civil society. 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 of final project with local nonprofit organizations selected in advance by instructor. May be repeated for credit with topic change. P/NP or letter grading.

115. Civic Engagement Perspectives. (4) (Formerly numbered Civic Engagement 115) Lecture, three hours; 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 and formation of civil society. 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 of final project with local nonprofit organizations selected in advance by instructor. May be repeated for credit with topic change. P/NP or letter grading.

116SL. Community-Based Studies of Popular Literature. (4) (Formerly numbered Civic Engagement 116SL) Lecture, three; fieldwork, four 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 and formation of civil society. 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 of final project with local nonprofit organizations selected in advance by instructor. May be repeated for credit with topic change. P/NP or letter grading.

117SL. Civic Engagement Theory and Application. (4) (Formerly numbered Civic Engagement 117SL) Seminar, three hours. Limited to students in UCLA Summer Social Innovation Research Program. Study of social innovation as theory 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 on campus and in communities. Offered in summer only. 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 theory 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 on campus and in communities. Offered in summer only. Letter grading.

153. Civic Engagement and Public Use of Knowledge: Special Topics. (5) (Formerly numbered Civic Engagement 153) Seminar, three hours; fieldwork, three hours. Limited to juniors/senior. Service-learning course that explores community-based research projects related to University/community partnerships and role of civic education in higher education. May be repeated for credit with topic or instructor change. Letter grading.

155L. Storytelling for Social Justice: Research and Writing with Nonprofit Organizations. (4) (Formerly numbered Civic Engagement 155L) Seminar, three hours; fieldwork, two hours. Limited to juniors/ seniors. Exploration of how nonprofit organizations use storytelling strategies to advance social justice. Offers opportunity to use research and writing skills telling stories of social justice through print and online media. Students collaborate with nonprofit organizations to research and write projects. Special focus on how storytelling can empower individuals and communities and advance equity in diverse urban centers like Los Angeles. Letter grading.


160SL. Access to Justice: Hope and Reality. (4) (Formerly numbered Civic Engagement 160SL) Seminar, three hours; fieldwork, 10 hours. Limited to juniors/senior. Examination of how addressing social determinants in racial/ethnic minority communities can reduce or eliminate physical and economic disparities. Students will currently in racial and ethnic minority communities. Social health status of individuals community can be function of built environment, exposure to pollutants and toxins, scarcity of safe food and water, and quality and quantity of food and nutrition. Focus on civil society to explore multiple forms of intervention and organizations that take place in multiple communities across Los Angeles basin. Service learning course that examines how social justice organizations are addressing immigration concerns. 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 capitalism; urbanism, liberal, and neoliberalism. Examination of modalities and theories of conflict and transformation, with emphasis on three primary forms of societal conflict: social movements, 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.

175. Civic Engagement Minor. (1) (Formerly numbered Civic Engagement 175) Lecture, one hour. Course change. Letter grading.

180. Access to Justice: Hope and Reality. (4) (Formerly numbered Civic Engagement 180) Seminar, three hours. Limited to UCLA students who are members of JusticeCorps program through AmeriCorps. JusticeCorps was established as innovative approach to address the needs of communities and individuals in underserved areas by providing legal services through the use of community-based partnerships and role of civic education in higher education.
to solving one pressing issue faced by courts around country today, providing equal access to justice. Ex-
amination 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 legal system, including origins and current status of legal services and self-help movements, including role of JusticeCorps. Were these strategies 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? P/NP or letter grading.

M188. Social Entrepreneurship. (4) (Formerly numbered Civic Engagement M188) Same as Economics M188.) 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 enter-
prise accelerator program aimed at helping participat-
ing organizations secure financial and operational resources they need to implement social enterprise for which viable business plan has already been con-
structed. Students meet assigned organization, study its business, and work with instructors of course and staff of nonprofit organization to develop tailored plan of work for 10-week accelerator program. Stu-
dents carry out work in conjunction with staff of orga-
ization under supervision of instructors and with as-
sistance of experienced entrepreneur volunteer men-
tors, P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) (Formerly numbered Civic Engagement 188SA) Tutor-
ial, to be arranged. Enforced prerequisite: Honors Col-
egium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, develop preparatory research, and begin prepara-
tion 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 195SB.) Tuto-
rial, to be arranged. Enforced prerequisite: Honors Col-
egium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to fi-
nalize 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 prerequisite: course 188SB. 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 re-
peated. 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. Lim-
ited 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, pa-
ers, or other activities. May be repeated for max-
ummum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

194. Capstone Research Seminar. (4) (Formerly numbered Civic Engagement 194.) Seminar, two hours. Requisite: 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 cap-
stone research project. Letter grading.

194A. Astin Civic Engagement Research Seminar. (4) (Formerly numbered Civic Engagement 194A.) Seminar, three hours. Limited to students in Astin civic engagement spring training program. Integration of off-campus work with academic theories and con-
cepts within field of civic engagement. Students report on their internship experiences and analyze relation-
ship 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.

195. Community or Corporate Internships in Civic Engagement. (4) (Formerly numbered Civic Engagement 195.) Tutorial, one hour; fieldwork, eight hours. Limited to juniors/seniors in Civic Engagement minor. Internship in supervised setting in corporate, govern-
mental, or nonprofit setting, using knowledge base of civic engagement. Students submit weekly writing as-
signments and final paper that examine civic issues related to meaningful work at internship site. Students expected to learn ways in which individuals and groups can organize to solve problems, analyze is-
sues, or bring about change in democratic society. Must be repeated for three consecutive terms to fulfill minor requirements. Individual contract with super-
vising faculty member required. Letter grading.

195CE. Community and Corporate Internships in Civic Engagement. (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 coordi-
nated through Center for Community Learning. Stu-
dents 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 in-
ternship site. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. Letter grading.

198. Honors Research in Civic Engagement. (4) (Formerly numbered Civic Engagement 198.) Tutorial, one hour. Required capstone course to Civic Engagement minor for students pursuing College Honors. De-
velopment and completion of honors thesis or com-
prehensive research project under direct supervision of faculty member. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Civic Engagement. (4) (Formerly numbered Civic Engagement 199.) Tutorial, to be arranged. Required cap-
stone course to Civic Engagement minor. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated once for credit. Individual contract required. Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered Civic Engagement 375.) Seminar, to be arranged. Preparation: apprentice personnel em-
ployment as teaching assistant, associate, or fellow. Teaching apprentice practicum under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.
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 schoolwide 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 management 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 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 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 application of them to student lives and real-world issues through lectures, video, diet analysis, activities, reports, discussion of video and reading assignments, and reviews of community programs that apply nutrition and behavior theory to improve health and wellness of individuals and communities. Practical applications of 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 other’s 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.

130. Nutrition and Health, (4) Lecture, three hours; laboratory, 90 minutes. History and recent reappraisal of nutrition through the ages. Case studies of evidence-based health promotion programs provided. Letter grading.

131. Healthy Food Access in Los Angeles: History and Practice of Urban Agriculture, (4) Lecture, three hours; laboratory, 90 minutes. 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 springs from healthy food/active living movements and access to locally grown, in-season, affordable food. 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, four hours. 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.

160. Intergroup Dialogue: Theory and Practice of Peer Facilitation, (4) Lecture, four hours. Recommended requisite: course 60. Discussion on issues of difference, conflict, and community to facilitate understanding between social/cultural groups. Peer facilitator training course to develop understanding of the theoretical and research foundations of intergroup dialogue, peer facilitation, 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 requisite: 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 further development of knowledge and techniques in areas of group dynamics, conflict intervention, communication and community, and mental health effects of structural inequality as they relate to discussions of social justice and multicultural issues. Readings in these areas and discussions of ongoing dialogue dynamics. May be repeated once for credit. Letter grading.

CM170. Improving Worker Health: Social Movements, Policy Debates, and Public Health, (4) (Same as Labor and Workplace Studies M170.) 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 interventions. Concurrently scheduled with course CM470. P/NP or letter grading.

180. Field Studies in Cancer Control. (4) Lecture, two hours; discussion, one hour; fieldwork, four hours. Required. Preparation: 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 guidance, two to three 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 disciplines. Community-based service learning strategy used to enhance knowledge of concepts covered. As part of service portion, students trained as caseworkers and committee members. Letter grading.

188A-188B. Special Courses in Community Health Sciences. (4–2) Lecture, two hours (188B) and three hours (188A). Examination of current topics or particular subfields or experimental or temporary courses in community health sciences. Specific topics 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 departmental Honors programs. Designed as an 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 work. Interns 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 to be arranged between faculty member and student. Designed 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 of documented and undocumented immigrants and refugees in U.S. Demographic, 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.

208. Introduction to Demographic Methods. (4) Same as Sociology M213A.) Lecture, four 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, two hours; outside assignments, eight hours. Course 211A is requisite to 211B. Development, planning, and administration of public health programs in community settings. Introduction to design and implementation of health education and community health interventions. Seminar, two hours; discussion, one hour. Limited to graduate students. Letter grading.

211B. Development, Planning, and Administration of Data Collection Instruments, with particular emphasis on evaluation of community-based public health programs. Course organized into three modules. Letter grading. Requisite: course 211A. Requisites: courses 210, 211A, and Biostatistics 100A or Epidemiology 100. Letter grading.

212. Advanced Social Research Methods in Health. (4) Lecture, four hours; laboratory, two hours; outside assignments, eight hours. Requisite: courses 211A, 211B, Biostatistics 100B, 406. Problems of health survey design and data collection; measurement issues in data analysis and interpretation; use of computer 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: course 211A. Application of conceptual, theoretical, and evaluation skills to community-based health education risk-reduction programs. Computer applications, data management, and research methods for designing and implementing computer-assisted health education microcomputer and mainframe computer management and analysis of program databases. Letter grading.

214. Issues in Program Evaluation. (4) Discussion, three hours; reading and research paper, one hour. Requisite: course 211B. Seminar examines problems of planning and implementing evaluation research in context of local demonstration projects. Letter grading.

216. 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 methods and techniques in research and evaluation related to health. Letter grading.

218. Questionnaire Design and Administration. (4) (Same as Epidemiology M218.) Lecture, four hours. Requisites: courses 211A and 211B, or Epidemiology 206B and 200C. Design, testing, field use, and administration of data collection instruments. Special emphasis on questionnaires. Letter grading.

219. Theory-Based Data Analysis. (4) Seminar, three hours. Enforced requisites: Biostatistics 100A, 100B, 406. Introduction of theory into data analytic plan, its application to real data, and interpretation of results obtained through multivariate analysis. Analysis of quantitative data using range of multivariate techniques, such as linear multiple regression and logistic regression. Analysis of theoretical problem using student quantitative data or public use data. Letter grading.

220. Racism and Public Health: Social Epidemiologic Approaches. (4) Seminar, two hours; discussion, one hour. Requisite: Biostatistics 100B. Integration of social epidemiologic methods and critical approaches to study of racial stratification and public health. Focus on role of historically rooted, socially determined factors as social determinants of health, (2) building methodological competence for conducting research on racism as social determinant of health, and (3) developing critical thinking skills to better understand how persons’ racial- or race-related perspectives and experiences might inform their research. Letter grading.

222. Understanding Fertility: Theories and Methods. (4) (Same as Sociology M206.) 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 under-studied age 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, three hours; discussion, one hour. Requisite: one biology course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic disadvantage and food-related health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplinary (economics, sociology, nutrition, health, and more), with focus on linkages between social and physical environment (including 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/or 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) Seminar, four hours. Requisites: course 219, two graduate biostatistics courses, one graduate epidemiology course. Development of skills for advanced doctoral students in producing peer-review-quality research papers, with focus on theoretically informed empirical research papers. Examination of other types of manuscripts (e.g., reviews) included. Letter grading.

M234. Obesity, Physical Activity, and Nutrition. (4) Lecture, three hours; discussion, one hour. Introduction to the physiological and behavioral factors involved in the development of obesity and the role of physical activity and nutrition in its prevention and treatment. Letter grading.


M236. Determinants of Health. (4) Same as Health Policy M232.) 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, and individual behavioral factors. Introduction to concepts related to health disparities and defined subgroups. Letter grading.


M238. Race, Ethnicity, and Culture as Concepts in Community Practice and Research. (4) Lecture, three hours; discussion, one hour. Introduction to the concepts of race, ethnicity, and culture as they relate to research and practice. Letter grading.

M239. Child and Reproductive Health in Communities: Global Environmental Perspective. (4) Lecture, three hours; discussion, one hour. Global environmental influences on health and fertility and the interaction of these factors in low-income and middle-income countries. Letter grading.

M240. Population, Policy, and Cost-Benefit Analysis. (4) Lecture, three hours; discussion, one hour. Examination of health policy and cost-benefit analysis from the perspectives of public health, industry, and individuals. Letter grading.


M242. Program Planning in Community Disaster Preparedness. (4) Lecture, three hours; discussion, one hour. Examination of the role of program planning in community disaster preparedness. Letter grading.


M244. Women's Roles and Family Health. (4) Lecture, two hours; discussion, one hour. Discussion of the role of women in family and community health. Letter grading.


M253. Health and Culture in Americas. (4) Same as Latin American Studies M253.) Lecture, two hours. Introduction to biostatistics and epidemiology courses. Review of all aspects of contemporary nutrition sciences that require application of epidemiologic principles and methods, ranging from food-borne outbreak 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.


M255. Program Planning in Community Disaster Pre- paredness. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 211A, 211B, 215. Introduction to health and emergency management principles combined to design, plan, implement, and evalu- ate community disaster preparedness programs, in- cluding needs assessment, identification of target population, objective writing, program planning, and process, outcome, and impact evaluation. Letter grading.


Holistic approach covering politics, economics, history, geography, human rights, maternal/child health, culture. Letter grading.

M263. Social Demography of Los Angeles. (4) (Same as Sociology M263.) Lecture, three hours. Enrolled for credit: course 210. Course 270A is enforced requisite to 270B. Limited to departmental doctoral students. In-depth analysis of theories, methods, and research on which community health sciences are based. Letter grading.

270A-270B. Foundations of Community Health Sciences. (4) (Same as Anthropology M233Q and Latin American Studies M264.) Lecture, three hours. Recommended preparation: course 132, bilingual English/Spanish skills. Examination of what factors in traditional medicine and shamans in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-define illness with emphasis on kinds of healing methods. Examination of art, music, spiritual, cosmology, and case examples of religion and healing practices via lecture, film, and audiotape. Letter grading.

270A. Foundations of Community Health Sciences. (4) (Same as Anthropology M233Q and Latin American Studies M264.) Lecture, three hours. Recommended preparation: course 132, bilingual English/Spanish skills. Examination of what factors in traditional medicine and shamans in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-define illness with emphasis on kinds of healing methods. Examination of art, music, spiritual, cosmology, and case examples of religion and healing practices via lecture, film, and audiotape. Letter grading.

270B. Foundations of Community Health Sciences. (4) (Same as Anthropology M233Q and Latin American Studies M264.) Lecture, three hours. Recommended preparation: course 132, bilingual English/Spanish skills. Examination of what factors in traditional medicine and shamans in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-define illness with emphasis on kinds of healing methods. Examination of art, music, spiritual, cosmology, and case examples of religion and healing practices via lecture, film, and audiotape. Letter grading.


M272. Social Epidemiology. (4) (Same as Epidemiology M272.) Lecture, two hours; discussion, one hour. Requisite: Epidemiology 100. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence, and distribution of morbidity and mortality; how these factors affect health care; environmental factors associated with general susceptibility to disease and subsequent mortality. Letter grading.

276. Complementary and Alternative Medicine. (4) Lecture, three hours. Requisites: course 100 or 210, Health Policy 100. Analysis of use and acceptance of complementary and alternative medicine (CAM) by clients and providers. Core beliefs of CAM, relationship of CAM to conventional medicine, and CAM providers' perspective of CAM in conventional medicine, impact of CAM on client identity. Letter grading.

M277. 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 problem. Conceptual, theoretical, and evaluative skills developed for constructing community-based educational program. Letter grading.

M278. Work and Health. (4) (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 impact of workplace physical and psychological health in context of newly emerging discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnicity, class), and new work stressors can be ameliorated. S/U or letter grading.

281A. Capstone Seminar: Health Promotion and Education. (4) Seminar, 90 minutes; discussion, 90 minutes. Enrolled requisite: course 210. 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.

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, implementing, evaluating social change marketing campaigns, including use of social marketing practices and strategies of audience research, marketing psychology, creative message development, branching, 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. Examination of 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 disorder and how it is socially constructed. Letter grading.

286. Doctoral Roundtable in Community Health Sciences. (4) Seminar, four hours. Designed for 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. (4) (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, including effects of structural and institutional factors; economic and social factors; interest groups, classes, 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 audio storytelling techniques, new media, entertainment education, and transmedia. Competencies: need for diverse media and transmedia, reaching audiences through popular nutrition (blogs, journalism), creating and evaluating effective communications using popular media. Letter grading.

290. Race, Class, Culture, and Aging. (4) Lecture, three hours; discussion, one hour. Experience of aging for African Americans and other racial minority groups. 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; fieldwork, one hour. Integrative health communication courses for new media, including websites, print media, short videos, curricula, and training materials. Laboratory sessions for materials production. Competencies: creating health communication materials for diverse audiences; using new media information technology, e.g. applied to website, social media, print media, video, and audio platforms. Letter grading.

293. Social and Behavioral Research in AIDS: Roundtable Discussion. (2 to 4) Discussion, two hours; individual consultation, two hours. Review and discussion of research programs directed toward identification of psychosocial, biobehavioral, environmental, and community factors related to prevention and control of AIDS/HIV. Letter grading.

M294. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (4) (Same as Psychiatry M288.) Lecture, four hours. Requisites: course 100 and Epidemiology 100, or prior social sciences courses. Overview of social and behavioral factors that influence both transmission and prevention of HIV/AIDS throughout world. Letter grading.


296. Advanced Research Topics in Community Health Sciences. (2 to 4) Discussion, two to four hours. Advanced study and analysis of current topics in community health sciences. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. 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 assistant: interactive guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Field Studies in Public Health. (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 forms for available funding from Student Affairs Office. May not be applied toward MS minimum course requirement; 4 units may be applied toward 60-unit minimum total required for MPH degree completion.

M411. Issues in Cancer Prevention and Control. (4) (Same as Health Policy M411.) Lecture, four hours. Designed for juniors/senior and graduate students. Introduction to causes and characteristics of cancer epidemic, cancer control goals for nation, and interventions designed to encourage smoking cessation/prevention, cancer screening, and other dietary, psychosocial, and lifestyle changes. Letter grading.

M420. Children with Special Healthcare Needs: Social-Policy Perspective. (Same as Health Policy M420 and Social Welfare M290L.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices that have evolved to identify, assess, and meet the needs of children, infants, children, and adolescents with developmental disabilities or chronic illness and their families. Letter grading.

427. Reproductive Health in Sub-Saharan Africa. (4) Lecture, four hours. Recommended requisite: course 247. In-depth understanding of reproductive health challenges facing sub-Saharan Africa and major programs designed to address them. Topics include family planning, STIs, abortion, adolescents, HIV/AIDS, and refugees. Letter grading.

M428. Child and Family Health Program Community Leadership Seminar. (2) (Same as Health Policy M428.) Seminar, two to four hours. Designed for graduate students. Examination of characteristics of community-based organizations (CBOs) and role of leader 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, comment on their practicum experiences, and underscore community leadership concepts designed to be practiced by those students. Letter grading.

M430. Building Advocacy Skills: Reproductive Health Focus. (4) (Same as Health Policy M434.) Seminar, three hours. Recommended requisite: one prior health policy course such as Community Health
School of Public Health graduate and doctoral students. Skills-building course to develop competency in assessing, developing, and implementing advocacy strategies for reproductive health initiatives. Introduction to legislative and community advocacy initiatives and to policymaking process, including policy analysis and development of resources necessary for legislative advocacy; identification of advocacy goals and objectives; advocacy planning, coalition building, 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.

431. Foundations of Reproductive Health. (4) Lecture, three hours. Limited to graduate students. Understanding of the role of reproductive health policies and Programs is critical for public health students interested in designing programs to address problems such as unwanted pregnancy, family planning, sexually transmitted diseases, and inadequate preventive services. Examination of foundations of reproductive health from medical perspective, with particular attention to implications for public health programs, health services, and reproductive health issues. Lecture, four hours. Requisite: course 231. Letter or S/U grading.

432. Perinatal Healthcare: Principles, Programs, and Policies. (4) Lecture, three hours; discussion, one hour. Comprehensive examination of perinatal healthcare, including perinatal epidemiology, outcome measures, public programs, controversies surrounding new technology, regionalization, organization of services at federal, state, and county levels, and medical/ legal issues. S/U or letter grading.

434A. Maternal and Child Health in Developing Areas. (4) Lecture, four hours. Requisite: course 231. Major health problems of mothers and children in developing areas, stressing causation, management, and prevention. Particularly relevant to adapting programs to limited resources in cross-cultural milieu. Letter grading.

435. Seminar: Advanced Issues in Women’s Health. (4) Seminar, three hours. Preparation: at least one prior women’s health course, one to two biostatistics courses, one research methods course. Provides more advanced and in-depth understanding of ways in which scientists “know” and considers of women’s health in a scientific discourse. Examination of series of case studies as starting point for discussion. Letter grading.


440. Public Health and National Security at U.S.-Mexico Border. (4) Lecture, two hours; discussion, one hour; research and literature review, one hour. Designed for graduate students. Exploration of community and environmental health and health issues that are present along U.S.-Mexico and coastal California borders. Integrated within public health framework are issues and mitigation of national security and disaster/terrorist risks and hazards. Letter grading.

441. Planning and Evaluation of Global Health Pro- grams. (4) Lecture, two hours. Theory, guidelines, and team exercise for planning community health/ family planning projects in U.S. and in developing countries. Phases include community needs identification, goal setting, and work plan development; evaluation; funding; staff development; evaluation design; data and cost analysis; and project presentation. Letter grading.

444. Anthropometric and Dietary Aspects of Nutri- tional Assessment. (4) Lecture, two hours; discussion, one hour; laboratory, two hours. Practical skills in anthropometric and dietary assessment, including selection of appropriate methods, data gathering and handling, and analysis and presentation. Letter grading.

446. Nutrition Education and Training: Third World Considerations. (4) Lecture, two hours; discussion, one hour; letter participation, one hour. Requisite: course 434A. Problems and priorities in nutrition edu- cation and training for families and health workers in Third World countries, including new concepts in primary healthcare services, mass media, communication, and government and international interven- tions. S/U or letter grading.


448. Nutrition Policies and Programs: Domestic and International Perspectives. (4) Lecture, two hours; discussion, two hours; field visits. Preparation: one nutrition sciences course and/or nutrition program experience. Nutrition programs and policies in U.S. and developing countries. Compared and contrasted. Analysis of role of major international, government, and nongovernmental agencies. Emphasis on meeting needs of vulnerable populations. Letter grading.


451. Post-Disaster Community Health. (4) Lecture, four hours. Examination of how public health resources and practices can be combined to address post-dis- aster community health needs. Identification of dis- aster-related health problems, data collection strate- gies, and service delivery approaches in post-disaster environment. Letter grading.

452. Management of Food and Nutrition in Major Emergencies. (4) Lecture, three hours. Designed for second-year master’s or doctoral students interested in humanitarian relief. Required to design rational and cost-effective food and nutrition emergency relief approaches and programs. Letter grading.


477. Health Disparities, Health Equity, and Sexual Minority Populations. (4) Lecture, two hours; discus- sion, one hour. Limited to graduate students. Examina- tion of health disparities affecting sexual minority populations, category that includes lesbians, gay men, bisexuals, and transgender (LGBT) persons. Use of Healthy People 2010 Companion Document for LGBT Health to outline key health issues and national recom- mendations for achieving reductions in each area. Discussion of considerations for providing clinical care and health promotion to LGBT populations. Unique social and contextual factors influencing LGBT health and methodological issues for conducting research among LGBT persons. S/U or letter grading.

482. Practicum: Community Health Sciences. (4) Discussion, two hours; fieldwork, up to 20 hours. Requ- isites: courses 210, 211A, 211B. Understanding of professional practice in health-related organizations. Letter grading.

484. Risk Communications. (4) Lecture, three hours; fieldwork, one hour. Requisites: courses 210, 211A, and 211B, or prior public health and behavioral sci- ences courses. Risk communication theory, research, and practice, including social and psychological bases of public health and health behavior theories, and how risk is portrayed in media. Environmental, product safety, food-borne and infectious diseases, disasters, and bioterrorism communication. Compe- tencies required for understanding emergency and everyday risk communication principles, creating valid risk commu- nication messages and materials, working proactively with new media. Letter 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, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master’s degree minimum total course requirement; may not be applied to minimum graduate course requirement. S/U grading.

506. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Limited to graduate stu- dents. 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 or letter grading.

507. Preparation for Master’s Comprehensive or Doctoral Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course require- ments. May be repeated for credit. S/U grading.

508. Master’s Thesis Research. (2 to 8) Tutorial, to be arranged. Only 4 units may be applied toward MPH and MS minimum total course requirement; may not be applied toward minimum graduate course requirement. May be repeated for credit. S/U grading.

509. Doctoral Dissertation Research. (2 to 12) Tuto- rial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.
Faculty Roster

Professors
Ali Behdad, PhD (John Charles Hills Professor of Literature)
Massimiliano Ciavolella, PhD
Eleanor K. Kaufman, PhD
Kathleen L. Komar, PhD
Efrain Kristal, PhD
Tamara J. M. Levitz, PhD
David W. MacFadyen, PhD
Saree Makdisi, PhD
Kirstie M. McClure, PhD
Aamir R. Mutti, PhD
Todd S. Presner, PhD (Michael and Irene Ross Professor of Yiddish Studies)
Kenneth Reinhard, PhD
Michael P. Rothberg, PhD (1939 Society Samuel Goetz Professor of Holocaust Studies)
Jennifer A. Sharpe, PhD
Shu-Wei Shih, PhD
Zrinka Stahuljak, PhD
Dominic R. Thomas, PhD (Madeleine L. Letessier Professor of French and Francophone Studies)

Associate Professors
Nouri Gana, PhD
Elizabeth A. Marchant, PhD
Yasemin Ylidiz, PhD

Assistant Professor
Stephanie B. Santana, PhD

Scope and Objectives
Standing at the forefront of innovative work in literary, theoretical, and cultural studies, comparative literature is one of the most exciting fields in the humanities. As a discipline it requires exceptional linguistic ability, theoretical knowledge, and high intellectual caliber. The UCLA program offers students the opportunity to work with faculty members in any of the language and literature departments as well as with the Department of Comparative Literature faculty.

The department, which is interdisciplinary and multilingual in scope, is committed to continuing its pioneering work in defining new literary paradigms and fostering new directions for exploration in literary studies, including such areas as the relationship between translation and transnationalism, literary theory and emerging media, the future of national literatures in an era of globalization, gender and sexuality studies, East-West cultural encounters, human rights and global censorship, postcolonial and diaspora studies, and experimental approaches to literature and culture.

Focusing on elements that preoccupy literary studies in general, such as genre, period, theme, language, and theory, comparative literature also extends its range to questions that concern other disciplines such as anthropology, art history, film and media studies, gender studies, history, and philosophy. Courses are designed to provide students with both a historical and theoretical understanding of literary and cultural forms, themes, and movements. Given its focus on interdisciplinary research and pedagogy, comparative literature is a natural site around which to explore the boundaries of modern language and literary studies.

Undergraduate Study

Comparative Literature BA

Learning Outcomes
The Comparative Literature major has the following learning outcomes:

- Ability to analyze literary texts
- Ability to situate literary texts in their aesthetic, historical, and cultural contexts
- Knowledge of different methods of analyzing literature
- Understanding of the importance of reading texts in their cultural context
- Ability to read literary texts in two languages
- Ability to write clearly-written, structured analytic essays

Preparation 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 GPA 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/W may be substituted), (2) two upper-division courses in one language (e.g., Arabic, Chinese, English, French, German, Korean, Russian, Spanish) in the original language, and (3) one upper-division course in a second language 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.
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 Iseult. 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 2DW or 4DW. Study of major literary texts usually overlooked in courses that focus only on canon of Western 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, 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 1D or 4DW. Study of major literary texts usually overlooked in courses that focus only on canon of Western literature, with emphasis on literary analysis and expository writing. Texts include authors such as Iliad, Odyssey, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, or Marie de France. Satisfies Writing II requirement. Letter grading.

2A. 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 2AW. Study and discussion of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts include works and authors such as Iliad, Odyssey, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, or Marie de France. Satisfies Writing II requirement. Letter grading.

2B. 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 selected texts from Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Chaucer, Dante, Cervantes, Don Quixote, Shakespeare, 1001 Nights, Christine de Pizan, Popul Vuh, Moliere, and Racine. Satisfies Writing II requirement. Letter grading.

4C. Literature and Writing: Age of Enlightenment to 20th Century. (5) 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 4CW. Study and discussion of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts include authors such as Chaucer, Dante's Divine Comedy, Cervantes' Don Quixote, Shakespeare, 1001 Nights, Christine de Pizan, Popul Vuh, Moliere, and Racine. Satisfies Writing II requirement. Letter grading.

4D. Literature and Writing: Great Books from World at Large. (5) 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 1D or 4DW. Study and discussion of major literary texts usually overlooked in courses that focus only on canon of Western literature, with emphasis on literary analysis and expository writing. Texts include authors such as Chaucer, Dante, Cervantes, Don Quixote, Shakespeare, Calderon, Moliere, and Racine. Satisfies Writing II requirement. Letter grading.

Upper-Division Courses

100. Introduction to Literary and Critical Theory. (5) Lecture, four 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. Seminar-style introduction to disciplinary and comparative literature presented through series of texts illus- trative of its formation and practice. Letter grading.


103. People on Run: Migrants, Minorities, and Mul- tipolarism in Europe. (4) Seminar, three hours. Problem of migrants and refugees in ongoing crisis of European Union. Examination of contemporary crisis of European Union and of European multiculturalism in post-WWII Europe. Emphasis on how Europe has faced immigration since World War II, as well as more focused examina- tion of ways in which culture and migration have come to dominate discussions of future of what has pri- marily remained a concept of the European Union. Of- fered in summer only, P/NP or letter grading.

104. . (4) Seminar, three hours. Engagement with cur- rent debates and key theoretical texts about film ad- aptation. Exploration of art of film adaptation in broad sense, including transformation of short stories, plays, novels, historical accounts, biographies, paintings,
111. Histories and Methodologies of Comparative Literature / 315

112. Symbolism and Decadence. (5) Seminar, four hours. Designed for upper-division literature majors. Study of symbolism and decadent movements in 19th- and 20th-century literature, art, and culture, including futurism, Dadaism, Expressionism, Surrealism, and the works of Strindberg, Lagerkvist, Gide, Proust, Mann, Joyce, Hemingway, and Hemingway. May be concurrently scheduled with course C264. Undergraduate students may read all works in translation. P/ NP or letter grading.

113. Adventures of Avant-Garde. (5) Seminar, four hours. Designed for upper-division literature majors. Study of avant-garde movements in literature and the visual arts, including futurism, Dadaism, Expressionism, Surrealism, and the works of Strindberg, Lagerkvist, Gide, Proust, Mann, Joyce, Hemingway, and Hemingway. May be concurrently scheduled with course C264. Undergraduate students may read all works in translation. P/ NP or letter grading.

114. Modern European Novel. (5) Seminar, three hours. Designed for upper-division literature majors. Study of modern European novels from the 19th century to the present, with a focus on works of Kafka, Rilke, Woolf, Sartre, and Stevens. May be concurrently scheduled with course C264. Undergraduate students may read all works in translation. P/ NP or letter grading.

115. Holocaust in Literature. (4) (Same as Jewish Studies M167.) Lecture, three hours. Investigation of the Holocaust's influence on fiction, poetry, and nonfiction, and its role in literature and art, including Holocaust literature and films, and to analyze the Holocaust as a key event in the history of European Jewry and to analyze the Holocaust as a key event in the history of European Jewry. May be concurrently scheduled with course C264. Undergraduate students may read all works in translation. P/ NP or letter grading.

116. Modern Jewish Literature in English: Diaspora Literature. (4) (Same as Jewish Studies M164.) Lecture, three hours. Study of the works of Jewish authors who have lived in countries outside of Israel, including Turkey, Algeria, France, and the United States, and to analyze the development of Jewish literature in these countries. May be concurrently scheduled with course C264. Undergraduate students may read all works in translation. P/ NP or letter grading.

117. Modern Arab Literature in English. (4) (Same as Arabic M151.) Lecture, three hours. Study of the works of Arab authors who have written in English, including works from the Middle East, the Maghreb, and the Arab world, and to analyze the role of literature in Arab society and culture. May be concurrently scheduled with course C264. Undergraduate students may read all works in translation. P/ NP or letter grading.

118. Autobiography in Francophone and Anglophone Africa. (5) Seminar, three hours. Designed for upper-division literature majors. Study of the works of African authors who have written in French, including works from countries in West Africa, Francophone Africa, and the Caribbean, and to analyze the role of autobiography in African society and culture. May be concurrently scheduled with course C264. Undergraduate students may read all works in translation. P/ NP or letter grading.
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, exoticism, translation, and marketing. Genres may include prison narratives, epic poetry by women and men; verse 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 focus on Maghreb or one country such as Algeria, Palestine, Iraq, Lebanon, or Egypt. May also be organized around Arab literature written in one specific language, namely English, Arabic, or French. Letter grading.


C176. Literature and Technology. (4) (Same as Japanese M156.) Lecture, three hours. Knowledge of Japanese not required. Examination of representation of technology in literature; discussion of impact of technology on shifting images of gender, subjectivity, and national identity. P/NP or letter grading.

C178. India Ink: Literature and Culture of Modern South Asia. (5) Seminar, three hours. Survey of significant issues in 20th century Indian literature and culture. Great works of modern Indian culture by such figures as Rabindranath Tagore, Satyajit Ray, Faz Ahmad Faiz, and U.R. Anantham Murthy, including novels, short stories, poetry, films, music, and works 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 leaders like Mahatma Gandhi and expansion of Indian diaspora. Concurrently scheduled with course C287. P/NP or letter grading.

M179SL. Movement in Art, Philosophy, and Daily Life. (5) (Same as Art History Studies M179SL.) Seminar, three hours; fieldwork, three hours. Exploration of relation between human world and only relevant to what may or may not go on inside it, is control over movements. In living animals, sentence 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 psychosocial environment that permeates and surrounds us. Exploration of movements and animal movement, and how movement, 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. (4) Seminar, three hours. Course topics and emphasis are selected for juniors/seniors. Study of medical humanities in comparative context or topics. Concurrently scheduled with course CM170. P/NP or letter grading.

180S1. Variable Topics: Medical Humanities in Comparative Contexts and Community-Based Learning. (4) Seminar, three hours; fieldwork, three hours. Exploration of topics in medical humanities in community through service learning project. Consult Schedule of Classes for classes to be offered in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading. 180. Undergraduate Research Seminar: Comparative Literature. (4) Seminar, three hours. Preparation: satisfaction of Entry-Level Writing and College Writing requirements. Designed for undergraduate students interested in leaning research and/or writing honors thesis. Introduction to research in comparative literature, with focus on critical and theoretical methodologies and approaches to analyzing literary texts. Students choose their own topic of their own design. P/NP or letter grading.

181. Reading across Culture. (5) Seminar, three hours. What is it we do when we try to understand words, habits, gestures, and beliefs of other? 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 have long history in both Western and non-Western cultures. Discussion of history of questions about cross-cultural interpretation and comparative intertextuality. Reading of cross-cultural literature and cultural anthropology. Reading of some very complex and influential works by such writers as Claude Lévi-Strauss, Amritav Ghosh, James Clifford, Edward Said, Gayatri Spivak, and Erich Auerbach. Concurrently scheduled with course C287. 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. (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 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. Enforced corequisite: course 188SB. 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 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 of greater depth through reading, writings, 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 Comparative Literature. (2) Seminar, three hours. 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 or letter grading.

191. Variable Topics in Comparative Literature. (4 to 6) Seminar, three hours. Designed for juniors/seniors. Study and discussion of limited periods and specialized issues and approaches in literary theory, especially in relation to other modes of discourse such as history, philosophy, psychology, linguistics, anthropology. Development of culminating project required. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Concurrently scheduled with course C178. P/NP or letter grading.

192. Individual Studies in Comparative Literature. (2 to 4) Tutorial, three hours. Designed for 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.

193. 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 written 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.

194. Directed Research or Senior Project in Comparative Literature. (2 to 4) Tutorial, three hours. Designed to provide individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with consent of chair. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Theory of Comparative Literature. (6) Seminar, three hours. Survey of theories of comparative literature, with emphasis on epistemology 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 Tradition: Epic, Tragedy, or Comedy. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Survey and analysis of features and function and appearance of such archetypal heroes as Achilles, 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. Examination of nature of cross-cultural, cross-linguistic, and cross-confessional exchange in known medieval worlds of Europe, Asia, and Africa, with focus on communication and translation. Reading of literary, social, cultural, artistic, and historical, manuscript studies to trace formation of discourses produced by diverse encounters. Choice of bilingual texts. May be repeated for credit with topic change. 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 types and plays of Renaissance, 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 C212. 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.

C256. Fantastic Fictions. (4) Seminar, three hours. Time and again in modern literature, corpses become conduits or catalysts for revelation. What are ghosts that fiction freely can purify, purged, and what is their connection to national history or nation language or narrative? Readings from James Joyce, John Banville, Henry James, Toni Morrison, Adolfo Bioy Casares, Italo Calvino, Jorge Luis Borges, Fuentes, with films by Alejandro Amenabar, Andrea Tarkovsky, and Kenji Mizoguchi. May be concurrently scheduled with course C156. Graduate students have additional meetings and theoretical readings by Benjamin, Freud, Barthes, Derrida, Rabelle, Rickels, and Caruth. S/U or letter grading.

C260. Literature and Visual Arts. (4) Lecture, three hours. Knowledge of art history valuable but not required. Assumings literature and visual arts are in some degree expressions of cultural and philosophical patterns of eras, study of relationships between writers and movements in painting, architecture, and sculpture. Emphasis on similarities and differences between plastic and verbal arts in comparative study. May be repeated for credit with instructor and/or topic change. May be concurrently scheduled with course C160. Graduate students required to read works in original languages. S/U or letter grading.

C261. Fiction and History. (4) Seminar, three hours. Analysis of use of historical events, situations, and characters in literary works of Renaissance and/or modern period. Texts and individual assignments range from Renaissance historical narratives (Italian humanism, Marlowe, and 20th-century novels) by authors such as Stendhal, Veha, Tomasi di Lampedusa, Carpentier, and Kundera. Use of fictional methods by historians. Emphasis on how aesthetic, ideological, and cultural dimensions of authors’ choice and use of historical material. May be concurrently scheduled with course C161. Graduate students required to prepare papers based on texts read in original languages. S/U or letter grading.

C273. 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 with both the major and artistic methods with growing self-consciousness of human beings and their society, with focus on works of Kafka, Rilke, Woolf, Sartre, and Stevens. May be concurrently scheduled with course C172. Graduate students are required to prepare papers based on texts read in original languages and to meet as a group one additional hour each week. S/U or letter grading.

C274. Modern European Novel. (5) Seminar, three hours. Preparation: reading knowledge of at least one appropriate foreign language. Study of modern European novel’s development from 19th to 21st century. Use of authors such as Hardy, Strindberg, Lagerkvist, Ibsen, Mann, Tucholsky, Woolf, Diderot, Grass, Christa Wolf, and Enquist to focus on development of themes such as shifting authority, gender conflicts, changes versus stability, formal experimentation, 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 whenever possible and to meet one additional hour each week. S/U or letter grading.

C266. Writing and Photographic Image. (4) Seminar, three hours. Preparation: knowledge of one appropriate foreign language. Designed for graduate students. Examination of interrelationship between writing and photography in American and European contexts. Study rests on premise that photographic en- tapers public domain framed by writing and discourse and, in turn, serves as horizon and arena for literary and visual modes of representation. S/U or letter grading.

C275. Comparative Arab Studies. (5) Seminar, three hours. Preparation: knowledge of one appropriate foreign language. Investigation of ways in which Arab literati, artists, and intellectuals have perseveringly sought to imagine and construct viable structures of cultural empowerment on the periphery of political project of Arab nationalism and in growing response to globalization and consolidation of Western colonial and imperial ideologies in Arab world. Particular attention to technical and experimental modes of expression through which Arab artists working in different genres have engaged with some persistent and recurrent questions related to their mission, vocation, and commitment (ilfani) 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 French, German, English, American, Spanish, American, African, and Asian women writers from cross-cultural perspective. Common themes, problems, and techniques. Concurrently scheduled with course CM170. S/U or letter grading.


C272. Postmodern Novel. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of postmodern novel as it developed out of modernism. Postmodernism defined in three different ways—philosophically, scientifically, and economically. Emphasis on relationship of recent narrative/theories of structuralism and poststructur- alism. Readings include authors such as Borges, Beckett, Nabokov, Pynchon, Fuentes, Grass, Böll, and Calvino. Concurrently scheduled with course C172. Graduate students required to meet as a group one additional hour each week. S/U or letter grading.

M274. Theorizing Third World. (4) (Same as Asian American Studies M261.) Seminar, three hours. Investigation of politics of power, gender, and race in contemporary sociocultural and political contexts of First, Second, and Third World, using both theoretical and textual approaches. S/U or letter grading.


M276. Reading Modern Bodies. (4) (Same as Japanese M276.) Seminar, three hours. Designed for graduate students. Exploration of construction of human body through various modern technologies and discourses, including theories of race, gender, and sexuality. Examination of texts from variety of cultural contexts, with particular emphasis on Japan. S/U or letter grading.
to retourn au pays natal and ending with consideration of dispersion of identities in work of writers and intellectuals who contend with problem of diasporic Caribbean return. (5) Virtual return. (4) Seminar. Three hours. Survey of significant issues in history of 20th-century Indian literature and culture. Modern Indian literature and culture, such as novels by Rabindranath Tagore, Satyajit Ray, Faz Ahmed Faiz, and U.R. Anantha Murty, including works such as short stories, poetry, films, music, and works in modernist 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 leaders like Mahatma Gandhi and expansion of Indian diaspora. Concurrently scheduled with course C178. S/U grading.

279. Subaltern Studies: Colonial Histories and Cultural Critique. (5) Seminar, three hours. Examination of certain links between practice of cultural criticism and problems of identity of colonial and postcolonial societies. Use of key texts by members of Subaltern Studies collective of Indian historians to explore some central issues arising from this relationship. What kind of interdisciplinary space is produced by dialogue of history and literary and cultural theory? Attention to literary texts to practice such interdisciplinary criticism. Nature of modernity in colonial setting. What is nature of bourgeoisie in colonial society? What kind of modernization does it seek? What is relationship of modern metropolitan bourgeoisie to indigenous 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 comparative 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 works of philosophers 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. Qualified undergraduates with proper language preparation. Introduction to principles of literary translation historically, that is, on basis of texts participating students translate, and presentation of student work for discussion. Opportunity for students to determine whether they have desire and talent to pursue literary translation as part of their professional lives. S/U or letter grading.

286. Workshop: Social Sciences Translation. (4) Seminar, three hours. Preparation: solid reading knowledge of at least one foreign language. Designed for graduate social sciences students. Techniques and issues need to render scholarly texts in their fields from language they use in their research into English and to advance their knowledge of language to stage where they can use it more effectively in all aspects of their research, as well as take advantage of translation techniques they have learned. S/U or letter grading.

287. Reading across Culture. (5) Seminar, three hours. What is it we do when we try to understand words, ideas, concepts, 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 have long history in both Western and non-Western cultures. Discussion of history of questions of cultural interpretation and comparative interpretation of cultures in both comparative literature and cultural anthropology. Reading of some very complex and influential works by such writers as Claude Lévi-Strauss, Amitav Ghosh, James Clifford, Edward Said, Pratap Chatterji Spivak, and Eric Auerbach. Concurrently scheduled with course C178. S/U or letter grading.

288. Modern Arab Thought. (4) Same as Arabic M288. Seminar, three hours. While much has been written in it said about resurgence and spread of political Islam after collapse of ideology of secular nationalism and failure of Arab left to apprehend exigencies 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 artists in aftermath of 1967. Course addresses and redresses this 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 approach to unlikelihood coexistence in Arab contemporary of ever-deepening and generalized crisis and of steady and consolidated development (if not effervescence) 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 redefinition and aims of theories of film and literature. Approaches vary by instructor (e.g., postcoloniality, psychoanalytic, semiotics, transnationalism, gender theory, S/U or letter grading.


292. Theories of Empire. (4) Seminar, three hours. History of theorizations of modern imperialism and colonialism since relevant writings of Karl Marx and Friedrich Engels. Examination of number of landmark theories 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 accounts. S/U or letter grading.

294. Seminar: Literary Theory. (4) Same as English M270. Seminar, three hours. Advanced interdisciplinary 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.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or instructor, with approval of chair, under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. 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. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Limited to graduate comparative 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.


597. Preparation for MA and PhD Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. Preparation for MA comprehensive examination or PhD qualifying examinations. May be repeated for credit. S/U grading.


Computational and Systems Biology

Interdepartmental Program College of Letters and Science

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Computational and Systems Biology
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Faculty Committee

Faculty Committee

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Alan Garfinkel, PhD (Biological and Physical Systems)

Alexander Hoffmann, PhD (Microbiology, Immunology, and Molecular Genetics)

Tetsuya Iwasaki, PhD (Mechanical and Aerospace Engineering)

Elliott M. Landaw, MD, PhD (Biomathematics)

James O. Lloyd-Smith, PhD (Biostatistics, Human Genetics)

Eric Auerbach, PhD (Chemistry and Biochemistry, Integrative Biology and Physiology)

Xinshu Grace Xiao, PhD (Integrative Biology and Physiology)
ample research problems include finding statistical
the inherent structure of biological information. Ex
and analyzing high-throughput biological data, and
mathematical approaches for mining, modeling,
proteomic, or metabolomic data. Bioinformatics
students interested in computational discovery and
well-justified combinations are also possible.
tractions have substantial methodologic overlap,
and biology at molecular and cellular levels. Stu
more focused on computational aspects of genetics
are more focused. For example, bioinformatics is
tems studies at all levels. The other concentrations
ition covers the widest spectrum of quantitative sys
- engineering, management, medicine, and public health.

Undergraduate Study

The Computational and Systems Biology major is a
designated capstone major. The capstone experi-
ence is a senior-level sequence of two courses inte-
grating the discipline via mathematical modeling,
simulation, and active research and report writing.
Students are expected to demonstrate critical
thinking skills and familiarity with research tech-
niques needed to successfully pursue a research
project in computational and systems biology, con-
ceive 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, bio-
medical systems, computers and biosystems, neu-
rosystems, 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 mas-
tery of advanced quantitative skills is essential for
multidisciplinary understanding. Each concentra-
tion emphasizes different systems or modalities,
and modeling or other computational approaches.
For students interested in broad options for post-
graduate studies in life sciences and related areas,
including medicine, the systems biology concentra-
tion covers the widest spectrum of quantitative sys-
tems 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. Stu-
dents normally select one, but because the concen-
trations have substantial methodologic overlap,
well-justified combinations are also possible.
The 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. Ex-
ample research problems include finding statistical
patterns that reveal genomic or evolutionary or de-
velopmental information, or how regulatory se-
quences give rise to programs of gene expression,
or how the genome encodes the capabilities of the
human mind.
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 computers and biosystems concentration is de-
signed for students interested primarily in com-
puter hardware, software, data management, data
representation, graph theory, computational algo-
rithm, or artificial intelligence applications in bio-
logical sciences, medicine, or pharmacology. Re-
search problems are typically algorithm oriented
and/or involve graphs, automata, or software devel-
opment. Examples include algorithmic or graph-
theory based studies for managing genomics data,
development of knowledge-based systems (KBS)
for delivering patient education, and KBS for auto-
mating complex biosystem modeling tasks.
The neurosystems concentration is designed for
students interested primarily in the nervous system,
or quantitative neurophysiology, with emphasis on
neural system networks that control behavior at
molecular, cellular, and whole-organism levels, neu-
ral 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 sys-
tems holistically and quantitatively, and pursue re-
search 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 biol-
ogy. For example, at the cellular level, systems biol-
gists 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 regula-
tory biomechanisms at all levels—molecular, cellu-
lar, organ, and/or whole-organism levels—and are
prevailing 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:

• Demonstrated critical thinking skills, and famil-

iarity with research techniques, needed to suc-

cessfully pursue a research project
• Conception and execution of a research project

that engages current methods and theory
• 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 aver-
age (GPA) of 2.0, and (4) have established a prema-
ajor 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. For more information, see the program
website.

All courses taken for the premajor must be com-
pleted with a grade of C or better. Premajor courses
Program in Computing 10B, 16, or Computer Sci-
ences 32 are required for students following the Bio-
logical Data Sciences or Bioinformatics concentra-
tions, but do not have to be completed prior to ap-
plying to the major.
All students are identified as premajors until they
satisfy the preparation for the major requirements
by (1) achieving a minimum 2.7 GPA in all premajor
mathematics courses, (2) achieving a minimum 2.7
GPA in all premajor courses, and (3) and 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
course, and additional requisites for specific con-
centrations), including Chemistry and Biochemistry
14A, 14B, and 14BL, or 20A, 20B, and 20L; Computer
Science 31 or Program in Computing 10A; Life Sci-
cences 30A, 30B, 40, and Computational and Sys-
tems Biology M32 or Mathematics M32T, or Mathe-
matics 31A or 31AL, 31B, and Statistics 10; Mathemat-
ics 33A, 33B; Physics 1A, 1B, and 1C, or 1AH, 1B4, 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 or 16.

Students following the biological data sciences concentration must also complete Mathematics 32A.

In addition, Chemistry 14C or 30A 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 six courses (23 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 M184, M185, (2) two probability and statistics courses from: Electrical and Computer Engineering 131A, Mathematics 170A, or Statistics 100A, and Bio-statistics 100A or Statistics 100B, and (3) two capstone courses: Computational and Systems Biology 150, to be taken in the junior or senior year, and M187, to be taken in the junior or senior year after completion of course 150.

**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 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 M140 (or 144), 172 (or Physiological Science 125), and one additional course from the bioinformatics approved course list. Note: Computer Science 32 or Program in Computing 108 or 16, and Mathematics 32A are completed in the premajor.

Biological Data Sciences (at least 20 units): Computer Science CM121, CM146 (or Statistics 101C or 1C1), 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 CM102, CM103, 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: Mathematics 32A is completed in the premajor.

Systems Biology (at least 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 systems biology approved list. Note: Mathematics 32A is completed in the premajor.

Required Upper-Division Courses (22 units): Computational and Systems Biology M184, M186, Mathematics 170A or Electrical and Computer Engineering 131A or Statistics 100A, Molecular, Cell, and Developmental Biology M140 or 144, Statistics 100B, and one elective course selected from Biomathematics 106, 108, Electrical and Computer Engineering 102, Mathematics 134, 136, 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.

**Mathematical Biology Minor**

The Mathematical 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 and consists of lower-division courses basic to the minor, plus three core courses and one option course that provide the needed background in structural biology, biologic 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 (1) 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, (2) submit an application essay supporting their interest in pursuing the minor and detailing any projects that they have already undertaken, and (3) file a petition in the Undergraduate Advising Office, 4436 Boelter Hall, after appropriate counseling.

**Required Lower-Division Course (4 units): Mathematics 33A.**

**Required Upper-Division Courses (22 units):** Chemistry and Biochemistry 153A, 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, and four core courses and one option 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 (1) 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, (2) submit an application essay supporting their interest in pursuing the minor and detailing any projects that they have already undertaken, and (3) file a petition in the Undergraduate Advising Office, 4436 Boelter Hall, after appropriate counseling.

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 M144, and one elective course selected from Biomatics 106, 108, 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.

M32. Essential Calculus for Mathematical Biologists. (4) Same as Mathematics M32T. Lecture, three hours; discussion, one hour. Requisites: Life Sciences 30A, 30B. Not open to students with credit for course 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.

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 under guidance of faculty mentor. Students learn how to translate their biological knowledge and intuition into mathematical equations and computer simulations, and how to interpret and glean biological insights from quantitative results and predictions. Review and integration of core mathematical and computational approaches in novel ways. Students gain experience translating and intuition about systems through many examples across range of biological levels, such as predator-prey, disease transmission, cancer initiation, cell migration, neural systems, vascular networks, sleep, drug interactions, gene expression, and more. Students learn how to model biological systems using ordinary and partial differential equations, and how to instantiate their mathematical models and biological intuition through numerical solutions and simulations. Letter grading.

M175. Stochastic Processes in Biochemical Systems. (4) Same as Chemistry M186L. Lecture, three hours. Requisites: Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C, 30A or 30B, or Mathematics 33A or 33B, with grades of C or better. Recommended Requisites: Physics 1A, 1B, and 1C, or 5A, 5B, and 5C, with grades of C or better. Students learn how to translate their biological knowledge and intuition into mathematical equations and computer simulations, and how to interpret and glean biological insights from quantitative results and predictions. Review and integration of core mathematical and computational approaches in novel ways. Students gain experience translating and intuition about systems through many examples across range of biological levels, such as predator-prey, disease transmission, cancer initiation, cell migration, neural systems, vascular networks, sleep, drug interactions, gene expression, and more. Students learn how to model biological systems using ordinary and partial differential equations, and how to instantiate their mathematical models and biological intuition through numerical solutions and simulations. Letter grading.

M184. Introduction to Computational and Systems Biology. (2) Same as Bioengineering M184 and Computer Science M184.) Lecture, two hours; outside study, four hours. Enforced requisites: one course from Civil Engineering M20, Computer Science 31, Mechanical and Aerospace Engineering M20, or Program in Computing 10A, and Mathematics 3B or 31B. Survey course designed to introduce students to computational and systems modeling and computation 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 attending computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology research. P/NP grading.

M185. Research Opportunities in Computational and Systems Biology. (4) (Same as Computer Science M185.) Lecture, two hours; discussion, two hours. Requisites: course M184, Mathematics 32B, 33A, 33B, Life Sciences 4. Introduction to interdisciplinary laboratory research methods and research opportunities in computational and systems biology to prepare and initiate students for active engagement in research. Presentation of potential projects by faculty mentors and visits to individual laboratories and participation in ongoing projects. P/NP or letter grading.

M186. Computational Systems Biology: Modeling and Simulation in Biological Systems. (8) (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/bio-medical processes and systems at multiple levels of organization. Control system, multicompartamental, predator-prey, pharmacokinetic (PK), pharmacody-namic (PD), and other structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismic levels. Both theoretic and 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. 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. Requisite: course M186. 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 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 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 under guidance of faculty mentor. Students learn how to translate their biological knowledge and intuition into mathematical equations and computer simulations, and how to interpret and glean biological insights from quantitative results and predictions. Review and integration of core mathematical and computational approaches in novel ways. Students gain experience translating and intuition about systems through many examples across range of biological levels, such as predator-prey, disease transmission, cancer initiation, cell migration, neural systems, vascular networks, sleep, drug interactions, gene expression, and more. Students learn how to model biological systems using ordinary and partial differential equations, and how to instantiate their mathematical models and biological intuition through numerical solutions and simulations. Letter grading.

Scope and Objectives

As biology advances rapidly in quantitative research methods, both the need and potential for closely associated theoretical research increases. On numerous medical science frontiers—such as genetics, molecular biology, oncology, pharmacology, neuroscience, and physiology—the Department of Computational Medicine contributes both in basic research and the development of specialized software to support investigation and health care. UCLA has one of the few departments in this rapidly evolving field.

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 bio-medical 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 research training in the medical curriculum and post-graduate medical programs.

Faculty Roster

**Professors**

- Douglas S. Bell, MD, PhD, in Residence
- Thomas Chou, PhD
- Robert M. Elashoff, PhD
- Eleazar Eskin, PhD
- Eran Halperan, PhD
- Kenneth L. Lange, PhD (Maxine and Eugene Rosenfeld Endowed Professor of Computational Genetics)
- Alexander J. Levine, PhD
- Gang Li, PhD
- James O. Lloyd-Smith, PhD
-Wei Wang, PhD
- Michael E. Phelps, PhD (Norton Simon Professor of Biophysics)
- Zhilin Qu, PhD, in Residence
- Marcus L. Roper, PhD
- Van M. Savage, PhD
- Janet S. Sinheimer, PhD
- Eric M. Sobel, PhD, in Residence
- Marc A. Suchard, MD, PhD

**Associate Professors**

- Jason Ernst, PhD
- Bogdan Pasaniciu, PhD

**Assistant Professors**

- Jingyi Jessica Li, PhD
- Sriram Sankaranarayan, PhD

**Adjunct Professors**

- David Elashoff, PhD
- Jeffrey A. Gornbein, DrPH

**Adjunct Associate Professors**

- Maria-Rita R. D’Orsogna, PhD
- Eli Engel, MD, PhD
- Ning Li, PhD
- Mary E. Sehl, MD, PhD

**(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. 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**

106. Introduction to Modeling in Neurobiology. (4) Lecture, four hours; computer laboratory, two hours. Preparation: some computer programming. Requisites: Mathematics 32A. Designed for upper-division science majors and biomedical graduate students. Introduction to modeling cells and cell systems, including intracellular biochemical networks, applications to cancer research. How to develop one’s own computer models using IMSL mathematics subroutines. P/NP or letter grading.

108. Introduction to Modeling in Neurobiology. (4) Lecture, four hours; computer laboratory, two hours. Preparation: some computer programming. Requisite: Mathematics 32A. Designed for upper-division science majors and biomedical graduate students. Survey of wide variety of topics in neurological modeling, current neuronal modeling systems. Development of skills to formulate and program one’s own studies using IMSL mathematics subroutines. P/NP or letter grading.

160. Introductory Biomathematics for Medical and Biological Research. (4) Lecture, four hours; discussion, 90 minutes. Elementary statistics course that focuses on statistical concepts and critiques literature, with emphasis on clinical research. Output from statistical computer packages discussed in class, but students do not use computer themselves. Topics include descriptive statistics, t-tests, confidence intervals, linear regression and correlation, analysis of variance, nonparametric statistics, basic experimental design, sample size determination, article interpretation. P/NP or letter grading.

170A. Introductory Biomathematics for Medical Investigators. (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.

170B. Statistical and Mathematical Modeling in Medical and Biological Research. (4) Lecture, four hours; discussion, 90 minutes. Second course in biomathematical methods. Topics include randomization methods, intermediate experimental design, contingency table analysis, analysis of variance, multiple linear regression, nonlinear regression, methods of classification, model checking, basic mathematical models including compartment models, and statistical computer software. Students have opportunity to design their own experiments and analyze them on computer, and to analyze previously collected data. 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.

190HA-190HB. Honors Research in Biomathematics. (4-4) 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

200. Research on Frontiers in Biомathematics. (2) Lecture, two hours; series of presentations by faculty members on research frontiers in biомathematics. S/U grading.

200B. Frontiers and Methods in Mathematical Sys- tems. (4) Lecture/seminar, four hours. Introduction to cutting-edge biомathematics. Im- ports critical thinking through critique of research. Trains students in scientific writing and presentation skills. Short writing assignments, figure preparation, and slide preparation.

210. Deterministic Models in Biology. (4) Lecture, three hours; laboratory, three hours. Preparation: knowledge of linear algebra and differential equations. Examining deterministic models with focus on how different 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.


203. Stochastic Models in Biology. (4) Same as Human Genetics M203.) Lecture, four hours. Requi- site: Mathematics 170A or equivalent experience in probability. Mathematical description of biological re- lationships, with particular attention to areas where conditions for deterministic models are inadequate. Examples are random walks in genetics, phy- siology, ecology, and variety of other biological and medical disciplines. S/U or letter grading.

204. Biomedical Data Analysis. (4) Lecture, four hours. Quantity and quality of observations have been greatly affected by present-day extensive use of com- puters. Problem-oriented study of latest methods in statistical data analysis and use of such arising in lab- oratory and clinical research. S/U or letter grading.

259. Controversies in Clinical Trials. (2) Discussion, one hour. Requisite: Biostatistics 200C. Topics include data analysis, basis for authorship, issues in genetic re- search area in biomedicine. Basic principles of com- puters. Trains students in critical thinking through critique of research. Trains students in scientific writing and presentation skills. Short writing assignments, figure preparation, and slide preparation.


207A. 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, population genetics, population genetics, and computer programming. Emphasis on mathematical derivation, practical complexity analysis, significant applications, and coding in Julia programming language. Big data appli- cations.

207B. Applied Genetic Modeling. (4) Same as Biostatistics M237 and Human Genetics M207B.) Lecture, three hours; laboratory, one hour. Requisites: Biostatistics 200B, 205A (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 methods in understanding 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 take either and are encouraged to take both. S/U or letter grading.

208A. Modeling in Neurobiology for Mathemati- cians. (4) Lecture, four hours; laboratory, two hours. Preparation: interpretation and solution of partial differential equations, programming experience. Introduction to electrochemical bases for nerve function and mathe- matical and computational methods for studying this. Appropriate for physicists engaging in active re- search area in biomedicine. Basic principles of com- puter modeling and computational methods, various reconstruction algorithms, special characteristics of CT, physics in CT, and various biomedical applications. S/U or letter grading.

208B. Modeling in Neurobiology for Biologists. (4) Lecture, four hours; laboratory, two hours. Preparation: interpretation and solution of partial differential equations, programming experience. Introduction to neuronal modeling, including how to formulate models and study them with existing computer software (e.g., NODUS) or one’s own simple programs that use IMSL subrou- tines. Survey of current leading research areas and software systems. S/U or letter grading.


210. Optimization Methods in Biology. (4) Lecture, four hours. Preparation: undergraduate mathematical analysis and linear algebra; familiarity with program- ming language such as Python or C. Modern compu- tational methods applicable to optimization problems. S/U or letter grading.

211. Mathematical and Statistical Phylogenetics. (4) Same as Biostatistics M239 and Human Genetics M211.) Lecture, three hours; laboratory, one hour. The- oretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolutionary tree reconstruction methods, studies of viral evolution, phylogeny, and coalescent approaches. Exam- ples from evolutionary biology and medicine. Labora- tory for hands-on computer analysis of sequence data. S/U or letter grading.

212. Nonlinear Dynamics in Biological Systems. (4) Lecture, three hours; discussion, one hour. Required preparation: mathematical methods, partial differential equations, and computer programming. Mathematical bases of non- linear dynamics and self-organization in temporal and spatial systems, with applications to biological sys- tems. Topics range from bifurcation theory in low di- mension to pattern formation in high dimension. Use of biologically important examples to illustrate appli- cations of these dynamics, including gene regulation and protein-protein interaction networks, glycolytic and metabolic oscillations, circadian rhythms, cell cycle controls, intracellular calcium cycling, pattern formation in action potential models and electrical wave formation and propagation in nerve and cardiac systems. S/U or letter grading.

213. Modeling Vascular Networks. (4) Lecture, four hours; laboratory, two hours. Preparation: interpretation and solution of partial differential equations, complex analysis, elementary knowledge of boundary value problems. Introduction to equations that describe fluid flow dynamics and branching structures. Laboratory and computer programming exercises to provide surveys of models for structure and flow of vascular systems. Vascular systems are nearly ubiquitous in nature, oc- curring across animals, plants, and other organisms. Coverage of applications to tumor growth and angio- genesis, sleep, and brain scaling, and other phe- nomena. S/U or letter grading.


230. Computed Tomography: Theory and Appli- cations. (4) (Same as Physics and Biomedicine M230.) Lecture, four hours. Computed tomog- raphy is three-dimensional imaging technique now widely used in radiology. Topics include current active re- search area in biomedicine. Basic principles of comp- uted tomography (CT), various reconstruction algo- rithms, special characteristics of CT, physics in CT, and various biomedical applications. S/U or letter grading.

231. Statistical Methods for Categorical Data. (4) (Same as Biostatistics M210.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 100B, 200B. Statistical techniques for analysis of categorical data; discussion and illustration of their applications and limitations. S/U or letter grading.


233A. Applied Bayesian Inference. (4) (Same as Biostatistics M233A.) Lecture, three hours; laboratory, one hour. Requisite: Biostatistics 200B or another substantial regression course. Bayesian approach to statistical inference, with emphasis on biophysical ap- plications and contrasts than mathematical theory. Topics include large sample Bayesian inference from likelihood, noninformative and conjugate priors, empirical Bayes, approaches to linear and nonlinear regression, model selection, Bayesian hy- pothesis testing, and numerical methods. S/U or letter grading.

243. Condensed Matter Physics of Cells. (4) (Same as Biophysics M243.) Seminar, four hours; discussion, one hour. Requisite: Biostatistics 200C. Theoretical and computational models of cellular systems, with applications to diffusion and transport, and binding processes, and optimal experiment design. S/U or letter grading.

259. Controversies in Clinical Trials. (2) Lecture, one hour; discussion, one hour. Requisite: completion of professional health sciences or MD degree. Required of all MS in Clinical Research students. Discussion and analysis of eight published and well-known trials with students, one invited clinical faculty member, and course director. Development of critical ability to eval- uate trial design and pitfalls. S/U or letter grading.

259A-M260B. Methodology in Clinical Research I, II. (4-4) (Same as Biostatistics M234) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Requisites: courses 170A, 265A. Course M260A is requisite to M260B. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as bio- statistics, epidemiology, pharmacokinetics, S/U or letter grading.

259C. Methodology in Clinical Research III. (4) (Same as Medicine M260C.) Lecture, four hours. Recommended preparation: MD, PhD, or dental de- gree. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as bio- statistics, epidemiology, pharmacokinetics, S/U or letter grading.

261. Responsible Conduct of Research Involving Humans. (2) (Same as Medicine M261.) Lecture, two hours; discussion, two hours. Preparation: completion of an online course in research integrity and responsible conduct of research subjects through Collaborative Institutional Training Initiative. Discussion of current issues in responsible conduct of clinical research, including reporting of re- search, basis for authorship, issues in genetic re-
search, principles and practice of research on humans, 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 training in good practice. Detailed analysis of articles: methods, results, discussion. Writing of review article. Grant submissions: aims, background, results, design, role of appendices. 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 (MD, DDS, DNP, or PhD). 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.

264. 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 structures for analysis, and data archival. Lectures, in-class practicums using actual studies and datasets, and student presentations. Letter grading.

265. Data Analysis Strategies I. (4) Lecture, two hours; laboratory, two hours. Preparation: MD or PhD degree. Requisite: course 170A. Designed to provide students with hands-on experience developing and testing hypotheses using various types of databases. Topics include developing testable hypotheses, data management, and analysis strategies and written presentation of findings. Experience with full process of hypothesis generation, operationalization of variables, 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.

266A. Applied Regression Analysis in Medical Sciences. (4) Lecture, three hours; laboratory, one hour. Requisite: course 170A. Proficiency in applied regression analysis, with focus on interpretation of results and performance of regression. Primary topics include simple linear regression, multiple regression, regression model selection, analysis of variance, logistic regression, and survival analysis. Letter grading.

266B. Advanced Biostatistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 266A. Continuation of course 266A. Some traditional multivariate methods, such as principle components, factor analysis, cluster analysis, and more modern methods, including recursive partitioning and missing data. Multilevel and longitudinal analysis. Letter grading.

M270. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioinformatics M223 and Biostatistics 260A.) Lecture, four hours; outside study, eight hours. Requisite: course 220 or Bioengineering C268 or M268A. 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 experiment design via applications in physiology and pharmacology. Letter grading.

M271. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics M223 and Statistics M254.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requisite: Bioinformatics M221 or Statistics 100A or 200A. Introduction to statistical methods developed and widely applied in several branches of computational biology, such as gene expression, sequence alignment, motif discovery, comparative genomics, and biological networks, with emphasis on understanding of basic statistical concepts and use of statistical inference to solve biological problems. Letter grading.

273. Stochastic Modeling in Molecular Cellular Biophysics. (4) Lecture, three hours; discussion, one hour. Requisite: Mathematics 170A or equivalent experience in probability, lower-division physics, or physical chemistry. Most molecular systems are large collections of molecules; behavior of such systems is stochastic. Mathematical descriptions of biochemical reactions with and without energy dissipation, molecular structures, and biophysical techniques that measure various biological processes. S/U or letter grading.


M282. Longitudinal Data. (4) (Same as Biostatistics M236.) Lecture, three hours; laboratory, one hour. Requisite: Biostatistics 202B or another substantial regression course. Analysis of 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 response. Advanced topics include introduction to clustered, multivariate, and discrete longitudinal data. S/U or letter grading.

M284. Methodology of Clinical Trials. (4) (Same as Biostatistics M238.) Lecture, three hours; discussion, one hour. Requisite: Biostatistics 200B. Introductory material on design and analysis of clinical trials, including adaptive methods for early and later 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.

296A-296B. Advanced Topics in Clinical Pharmacology. (2-2) Lecture, one hour; discussion, one hour. Review of pharmacokinetics, drug metabolism and transport, assessment of drug effects, drug therapy in special populations, and contemporary drug development. 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.


99. Preparation for MS or PhD Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Individual study. S/U grading.

Ravil Netravali, PhD
Anthony J. Nowatzki, PhD
Sriram Sankararaman, PhD
Fabiens Scalo, PhD, in Residence
Guy Van den Broeck, PhD

Senior Lecturers SOE
Paul R. Eggert, PhD
David A. Smallberg, MS

Adjunct Professors
David E. Heckerman, PhD
Van Jacobsen, MS
Alan C. Kay, PhD
Peter L. Reifer, PhD

Adjunct Associate Professor
Carey S. Nachenberg, MS
Giovanni Pau, PhD

Adjunct Assistant Professors
Alexander Afanasyev, PhD
Ramin Ramezani, PhD
Ameet S. Talwalkar, PhD

Scope and Objectives

Computer science is concerned with the design, modeling, analysis, and applications of computer systems. Its study at UCLA provides education at the undergraduate and graduate levels necessary to understand, design, implement, and use the software and hardware of digital computers and digital systems. The programs offer comprehensive and integrated studies of subjects in computer system architecture, computer networks, distributed computer systems, programming languages and software systems, information and data management, artificial intelligence, computer science theory, computational systems biology and bioinformatics, and computer vision and graphics.

The undergraduate and graduate studies and research projects in the Department of Computer Science are supported by significant computing resources. In addition to the departmental computing facility, there are over a dozen research laboratories specializing in areas such as distributed systems, multimedia computer communications, distributed sensor networks, VLSI systems, VLSI CAD, embedded and reconfigurable systems, computer graphics, bioinformatics, and artificial intelligence. Also, the Cognitive Systems Laboratory is engaged in studying computer systems that emulate or support human reasoning. The Biocybernetics Laboratory is devoted to multidisciplinary research involving the application of engineering and computer science methods to problems in biology and medicine.

The B.S. degree may be attained through the Computer Science and Engineering major, Computer Science major, or Computer Engineering major described below.

In addition, the department offers M.S. and Ph.D. degrees in Computer Science, as well as minor fields for graduate students seeking engineering degrees. In cooperation with the John E. Anderson Graduate School of Management, the Computer Science Department offers a concurrent degree program that enables students to obtain the M.S in Computer Science and the MBA (Master of Business Administration).

Undergraduate Study

The computer science and engineering program is accredited by the Computing Accreditation Commission and the Engineering Accreditation Commission of ABET.

The computer science program is accredited by the Computing Accreditation Commission of ABET.

The Computer Science and Engineering, and Computer Science, majors are designated capstone majors. Computer Science and Engineering students complete a major product design course, while Computer Science students complete either a software engineering or a major product design course. Graduates are expected to apply the basic mathematical and scientific concepts that underlie modern computer science and engineering; design a software or digital hardware system, component, or process to meet desired needs within realistic constraints; function productively with others as part of a team; identify, formulate, and solve computer software- and hardware-related engineering problems; and demonstrate effective communication skills.

The Computer Engineering major is a designated capstone major that is jointly administered by the Computer Science, and Electrical and Computer Engineering, departments. Undergraduate students complete a design course in which they integrate their knowledge of the discipline and engage in creative design within realistic and professional constraints. Students apply their knowledge and expertise gained in previous mathematics, science, and engineering coursework.

Students identify, formulate, and solve engineering problems and present their projects to the class.

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, M51A; Electrical and Computer Engineering 3; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4A or 4BL.

The Major

Required: Computer Science 111, 118, 131, M151B, M152A, 180, 181, Electrical and Computer Engineering 100, 102, 115C; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 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 M185; 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 course.

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,
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 3, 31, 32, 33, 35L, M51A; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4AL or 4BL.

The Major

Required: Computer Science 111, 118, 131, M151B, M152A, 180, 181; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, or Statistics 100A; one capstone software engineering or design course from Computer Science 130 or 152B; a minimum of 20 units and five elective courses selected from Computer Science 111 through CM187; a minimum of 12 units and three science and technology courses (not used to satisfy other requirements) that may include 12 units of upper-division computer science courses or 12 units of courses selected from an approved list available in the Office of Academic and Student Affairs; and 12 units of technical breadth courses selected from an approved list available in the Office of Academic and Student Affairs.

Students must take at least one course from Computer Science 130 or 132. Computer Science 130 or 152B may be applied as an elective if it is not taken as the capstone course. Credit is not allowed for both Computer Science 170A and Electrical and Computer Engineering 173A unless at least one of them is applied as part of the science and technology requirement or as part of the technical breadth area. 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 M116C may be taken instead of 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-computer-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 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, 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.

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 Office of Academic and Student Affairs of the Henry Samueli School of Engineering and Applied Science, 6426 Boelter Hall.

Required Lower-Division Courses (17 units minimum): Computer Science 32 or Program in Computing 10C, Life Sciences 3 or 7A, Mathematics 33A, 61.

Required Upper-Division Courses (18 units minimum): Computer Science 180 (or Mathematics 182), M184, two courses selected from Computer Science CM121, CM122, and CM124, and one course selected from Chemistry and Biochemistry C100, 138B, Civil and Environmental Engineering 110, Computer Science CM121, CM122, CM124, 170A, CM186, CM187, Ecology and Evolutionary Biology C135, Electrical and Computer Engineering 102, 131A, 141, Human Genetics C144, Mathematics 170A, Microbiology, Immunology, and Molecular Genetics 122, Molecular, Cell, and Developmental Biology 144, 187AL, Physiological Science 125, Statistics 100A, 100B. Eight units of either Bioinformatics 199 or Computer Science 194 or 199 may be applied as an elective by petition.

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, or Statistics 100A toward minor 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
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, 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. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in at least one (excluding this course). 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. Letter grading.

Computer Science
Lower-Division Courses
1. Freshman Computer Science Seminar. (1) Seminar, one hour; discussion, one hour. Introduction to department resources and principal topics and key ideas in computer science and computer engineering. Assignments given to bolster independent study and writing skills. 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. 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 tools 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. Letter grading.


Upper-Division Courses
112. Modeling Uncertainty in Information Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 111 and one course from 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 methodological tools include random variables, conditional probability, expectation and higher moments. Bayesian models for applications. Analysis includes probabilistic algorithms, evidential reasoning, analysis of algorithms and data structures, reliability, communication protocol and queuing models. Letter grading.

117. Computer Networks: Physical Layer. (4) Formerly numbered M117.) Lecture, two hours; discussion, two hours; laboratory, 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, ZigBee). Experimental project based on mobile or lab-equipped devices (cell phones, tablets, etc.) as sensor platforms for personal applications such as wireless health, positioning, and environment awareness, and experimental laboratory sessions included. Letter grading.

118. Computer Network Fundamentals. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 111. Designed for juniors/seniors. Introduction to design and performance evaluation of computer networks. Study of such topics as IP protocols, TCP/IP, Internet routing, and link layer protocols including Ethernet and wireless channels. Letter grading.

M119. Fundamentals of Embedded Networking Systems. (4) Same as Electrical and Computer Engineering M119.) Lecture, 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 of operation of cyber physical systems such as devices and systems constituting Internet of Things. Topics include feedback control and modeling, sensing, node architecture and operation, and applications. Letter grading.

CM121. Introduction to Bioinformatics. (4) Same as Chemistry CM160A.) Lecture, four hours; discussion, two hours. Requisites: course 32 or Program in Computer Science 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 concepts 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 or letter grading.

CM122. Algorithms in Bioinformatics. (4) Same as Chemistry CM160B.) Lecture, four hours; discussion, two hours. Requisites: course 32 or Program in Computer Science 10C with grade of C- or better, and 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, computational problems and then solving these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM222. Letter grading.
Computational techniques from statistics and computer science problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM224.

Letter grading.

130. Software Engineering. (4) Lecture; four hours; laboratory, two hours; outside study, six hours. Required: courses 111, 131. Recommended requisite: Engineering 183EW or 185EW. Structured programming, program specification, program proving, modularity, abstract data types, design, software tools, software control systems, program testing, team programming. Letter grading.

131. Programming Languages. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisites: courses 131, 35L, 35P. Basic concepts in design and use of programming languages, including abstraction, modularity, control mechanisms, types, declarations, syntax, and semantics. Study of several different programming paradigms, including functional, object-oriented, and logic programming. Letter grading.

132. Compiler Construction. (4) Lecture; four hours; discussion, two hours; outside study, six hours. Required: course 131. Compiler structure, lexical and syntax analysis; semantic analysis and code generation; theory of parsing. Letter grading.

133. Parallel and Distributed Computing. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 131, M151B. Distributed memory and shared memory parallel architectures; asynchronous parallel languages: MPI, MapReduce; primitives for parallel computation: specifications of parallelism, interprocess communication and synchronization; design of parallel programs for scientific computation and distributed systems. Letter grading.

136. Introduction to Computer Security. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 118. Introduction to basic concepts of information security necessary for students majoring in Computer Science and engineering. Overview of protection systems and data. Topics include security models and architectures, security threats and risk analysis, access control and authentication, cryptographic, 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. Required: course 131. How different programming language paradigms provide dramatically different ways of thinking about computation and offer trade-offs on many dimensions, such as modularity, expressiveness, safety, and efficiency. Concrete exploration of three major programming paradigms—functional, object-oriented, and logic programming—by prototyping implementations of languages in order to provide students with hands-on experience with design and structural properties of each language and paradigm to allow easy comparison against one another. Hands-on experience implementing new abstract data types and language paradigms and comparing results with existing languages. Concurrently scheduled with course C237A. Letter grading.

C137B. Programming Language Design. (4) Seminar; four hours; discussion, eight 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 bloated, buggy, and difficult to maintain and extend depend on 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 paradigms. Concurrently scheduled with course C237B. Letter grading.

143. Database Systems. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisites: course M151B or 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 database systems, gateway applications and design, for obtaining genetic information, and genetic sequencing. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, and introduction to the challenges for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems as computational problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course C237B. 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 first-hand experience with basic tools. 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. Web services 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 automatic discovery of patterns, changes, associations, and anomalies in massive databases), knowledge engineering, and wide spectrum of data mining application areas such as bioinformatics, e-commerce, environmental studies, financial markets, to name a few. Data processing, network monitoring, and social service analysis. Letter grading.

M146. Introduction to Machine Learning. (4) (Same as Electrical and Computer Engineering M146L.) Lecture; four hours; discussion, one hour; outside study, seven hours. Required: Civil and Environmental Engineering 110 or Electrical and Computer Engineering 131A. An overview of machine learning and data science, focusing on the statistical theory, algorithmic principles, and best practices. Topics will include supervised and unsupervised learning, data representation, and classification. Letter grading.

M151B. Computer Systems Architecture. (4) (Same as Electrical and Computer Engineering M151BC.) Lecture; four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 33, and M51A or Electrical and Computer Engineering M16. Recommended: courses 111, and M152A or Electrical and Computer Engineering M16L. Computer system organization and design, implementation of CPU data-path and control, instruction set design, memory hierarchy (caches, main memory, virtual memory) organization and management, input/output subsystems (bus structures, interfaces, I/O processor evaluation, pipelined processors. Letter grading.

M152A. Introductory Digital Design Laboratory. (2) (Same as Electrical and Computer Engineering M151LD.) Laboratory; four hours; outside study, two hours. Enforced requisites: courses 33, and M51A or Electrical and Computer Engineering M16. Hands-on design, implementation, and debugging of digital logic circuits, use of computer-aided design tools for schematic capture, simulation, and layout using schematic capture and/or complex circuits using programmed array logic design projects. Letter grading.

152B. Digital Design Project Laboratory. (4) Laboratory; two hours; discussion, six hours; outside study, six hours. Enforced requisite: course M151B or Electrical Engineering M116C. Recommended: Engineering 183EW or 185EW. Limited to seniors. Design and implement complex digital subsystems 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.

161. Fundamentals of Artificial Intelligence. (4) Lecture; four hours; laboratory; two hours; outside study, six hours. Enforced requisite: course 180. Introduction to fundamental concepts of knowledge representation paradigms of artificial intelligence. Introduction to Lisp with regular programming assignments. State-space and problem reduction methods, back-tracking and heuristic search, planning techniques, two-player games. Knowledge structures including predicate logic, production systems, semantic nets and primitive frames, scripts. Special topics in natural language processing, expert systems, vision, and parallel architectures. Letter grading.

168. Computational Methods for Medical Imaging. (4) Lecture; four hours; discussion, two hours; outside study, six hours. Required: course 32 or Program in Computing 10C with grade of C– or better, Mathematics 33A, one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, or Statistics 100A. Theory and practice of image acquisition including angiography, computed tomography (CT), and magnetic resonance (MR). Project-based course covers applied techniques of medical imaging in imaging processing, atlasing, predictive modeling, personalized medicine, data driven and machine learning methods. Letter grading.


M171L. Data Communication Systems Laboratory. (2 to 4) (Same as Electrical and Computer Engineering M171L.) Laboratory; four to eight hours; outside study, two to four hours. Enforced requisite: course M125A. Limited to seniors. Not open to students with credit for course M117. Interpretation of analog-signal aspects of digital systems and data communication through experience in using contemporary software to generate and analyze relevant laboratory setups. Use of oscilloscopes, pulse and function generators, baseband spectrum analyzers, desktop computers, PCs, and workstations in experiments on pulse transmission impairments, waveforms and their spectra, and modem and terminal characteristics, and interfaces. Letter grading.

172. Two-Time Three-Dimensional Animation. (4) Lecture; four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 32, Introduction to handling of geometry, appearance, and motion specifically for real-time virtual environments, both on theoretical and practical levels. Completion of one quality real-time three-dimensional animation by following through from preproduction to postproduction. Essential products expected to be game demonstrations, storytelling games, or machinima (use of real-time graphics engines to create cinematic productions). Focus on achieving highest quality productions two to four studio environments. Exploration of methods for numeric and symbolic computation, matrix algebra, statistics, floating point, optimization, and spectral analysis. Emphasis on applications in simulation and computer systems. Letter grading.

174A. Introduction to Computer Graphics. (4) Lecture; four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 32. Basic principles behind modern two- and three-dimensional computer graphics systems, including complete set of steps that modern graphics pipelines use to create realistic images in real time. How to position and manipulate objects in scene using geometric and camera
transformations. How to create final image using perspective and orthographic transformations. Basics of modeling primitives such as polygonal models 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 requisites: course 174A. State of art in three-dimensional photography and image-based rendering. How to use cameras and light to capture shape and appearance of real objects and scenes. Procedures for digitally acquiring and manipulating 3-D models and shape of objects. Applications of techniques from entertainment (reverse engineering and postprocessing of movies, generation of realistic synthetic objects and characters) to medicine (modeling of biological structures from imaging data), mixed reality (augmentation of video), and security (visual surveillance). Fundamental analytical tools for modeling and rendering of objects and scenes, and for rendering and manipulating novel views. Letter grading.

C174C. Computer Animation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 174A. Designed for juniors/seniors. Introduction to computer animation, including basic principles of character modeling, forward and inverse dynamics, and inverse kinematics, 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 and others interested in learning about algorithms, computational complexity, and the science of problem solving. Topics include problem complexity, basic techniques for analyzing algorithms, and paradigms for designing algorithms. Letter grading.


187. Research Communication in Computational and Systems Biology. (4) (Same as Bioengineering CM187.) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 180, 329, 30B, or Life Sciences 30A. Recommended corequisite: Mathematics 32C, 32A, or Life Sciences 32B. Designed for graduate students working in life sciences and engineering. Introduction to explicit modeling and simulation of dynamic biological systems. Presentation of how biology, biochemistry, and physiology are modeled in biological systems. The use of these models is transformed into system diagrams and graphs for refining conceptual understanding of their form and function. Structural models, formulated from basic conservation principles and inverse boundary effects, are further transformed into first-order differential equations, and implemented in simulation diagrams for quantifying and exploring biosystem properties. 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.

188. Introduction to Cryptography. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Preparation: knowledge of basic probability theory. Enforced requisites: course 180, Introduction to cryptography, computer security, and basic concepts and techniques. Topics include notions of hardness, one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permutations, semantic security, public-key and private-key encryption, key-agreement, homomorphic encryption, private information retrieval and voting protocols, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, and two-party secure computation with static security. Letter grading.


188B. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisites: course 188A. 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.

Graduate Courses

201. Computer Science Seminar. (2) Seminar, four hours; outside study, two hours. Designed for graduate computer science students. Seminars on 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 theoretical foundations, design and analysis of algorithms, 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. Enforced requisites: courses 31, 180. Recommended: statistics and probability, numerical linear algebra, knowledge of programming languages. Applied data analytics course with focus on healthcare applications. How to properly generate and analyze health data. Project-based course to learn about best practices in health data collection and validation. Exploration of various machine learning and data analytic tools to learn underlying structure of datasets to solve healthcare problems. Different machine learning
ciples 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; outside study, eight hours. Enforced requisite: course 217A. Designed for graduate students. Study of network protocol and systems software design in areas of secure mobile and wireless Internet. Topics include (1) IP and Internet protocols, network measurement of TCP/IP, end-to-end arguments, and protocol design principles, (2) networking protocols: 802.11 MAC standard, packet forwarding, routing protocols, and wireless TCP, (3) mobile computing systems software: middleware, file system, services, and applications, and (4) topical studies: energy-efficient design, security, location management, and quality of service. Letter grading.


M213A. Embedded Systems. (4) (Same as Electrical and Computer Engineering M202A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Designed for graduate computer science and electrical engineering students. Methodologies and technologies for design of embedded systems. Topics include hardware and software platforms for embedded systems, techniques for modeling and specification of hardware and software organization, time operating system scheduling, real-time communication and packet scheduling, low-power battery and energy-aware system design, timing synchronization, fault recovery, and techniques for hardware and software architecture optimization. Theoretical foundations as well as practical design methods. 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 M202A. Recommended: courses 111, and M151B 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 and for embedded, mobile, personal, enterprise, and data-center scale. Computing, networking, sensing, and control technologies and algorithms for improving energy sustainability in human-cyber-physical systems. Topics include modeling of energy consumption, energy sources, and energy storage; dynamic power management; power-performance scaling and energy proportionality; energy-cycling; power-aware scheduling; low-power protocols; battery modeling and management; thermal management; and sensing of power consumption. Letter grading.


M225. Computational Methods in Genomics. (4) (Same as Bioinformatics M225S and Human Genetics M225S.) Lecture, two and one half hours; discussion, two and one half hours; outside study, seven hours. Introduction to computational approaches in bioinformatics, genomics, and genetics and preparation for computational interdisciplinary research in genetics and genomics. Topics include genome analysis, regulatory genomics, association analysis, computational techniques for analyzing population, population substructure, human structural variation, model organisms, and genomic technologies. Computational techniques and methods in dealing with data from statistics and computer science. Letter grading.

M226. Machine Learning in Bioinformatics. (4) (Same as Bioinformatics M226S and Human Genetics M226S.) Lecture, four hours; outside study, eight hours. Enforced requisite: course 32 or Program in Computing 10C with grade of C– or better. Recommended: one course from Bioinformatics 100A, 110A, Civil Engineering 110, Electrical Engineering 111, Mathematics 170A, or Statistics 100A. Familiarity with probability, statistics, linear algebra, and algorithms expected. Designed for engineering students as well as students from biological sciences and medical school. Introduction to the computational techniques and methods in analyzing these datasets. Statistical machine learning provides important toolkit in this endeavor. Biological databases 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.

M229S. Seminar: Current Topics in Bioinformatics. (4) (Same as Biological Chemistry M229S and Human Genetics M229S.) Seminar, four hours; outside study, eight hours. Enlisted for graduate engineering students as well as students from biological sciences and medical school. Overview of current topics in bioinformatics, genomics, and computational and statistical methods in preparation for computational interdisciplinary research in genetics and genomics. Topics include genome analysis, regulatory genomics, association analysis, course study design, isolated and admixed populations, population substructure, human structural variation, model organisms, and genomic technologies. Computational techniques include those from statistics and computer science. Letter grading.
systems, as well as readings from recent research literature on modern applications of type systems. Letter grading.


233A. Parallel Programming. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 131. Mutual exclusion and resource allocation in distributed systems; primitives for parallel computation: interprocess communication, atomic actions, binary and multivalued locks. Flow-directed analysis of concurrent languages: CSP, Ada, Linda, Maia, UC, and others; introduction to parallel program verification. Letter grading.

233B. Verification of Concurrent Programs. (4) Lecture, four hours; outside study, eight hours. Requisite: course 233A. Formal techniques for verification of concurrent programs. Topics include safety, liveness, program and state-assertion-based techniques, weakest precondition semantics, Hoare logic, temporal logic, UNITY, and axiomatic semantics for selected parallel languages. Letter grading.

234. Computer-Aided Verification. (4) Lecture, four hours; outside study, eight hours. Requisite: course 211. Modern techniques for formal methods for design and analysis of concurrent and embedded systems, with focus on algorithmic techniques for checking logical properties of hardware and software systems. Topics include semantics of reactive systems, invariant verification, temporal logic model checking, theory of omega automata, state-space reduction techniques, compositional and hierarchical verification. Letter grading.

235. Advanced Operating Systems. (4) Lecture, four hours. Preparation: C or C++ programming experience. Requisite: course 111. In-depth investigation of operating system design and implementation through guided construction of a research operating system for PC machines and consideration of recent literature. Memory management and protection, interrupts and traps, processes, interprocess communication, preemptive multitasking, file systems. Virtualization, networking, profiling, re-search operating systems. Series of laboratory projects, including extra challenge work. Letter grading.

236. Computer Security. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 118. Basic and research material on computer security. Topics include basic principles and goals of computer security, common security tools, use of cryptographic protocols. Security tools (firewalls, virtual private networks, honeypots), virus and worm protection, security assurance and testing, design of secure programs, privacy, applying security principles to realistic problems, and new and emerging threats and security tools. Letter grading.

237A. Prototyping Programming Languages. (4) Lecture, four hours; discussion, two hours; outside study, one hour. Requisites: courses 111, 118. Hands-on experience implementing new abstractions, both stand-alone languages and as libraries 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 programming languages, compiler design, and computing history. And design, and implementation of software systems that are bloated, buggy, and difficult to maintain and extend despite trend in computing toward ever higher levels of abstraction for program- ming. Hands-on experience designing, proto-typing, and evaluating new languages, language semantics, and/or programming environments. Concurrently scheduled with course C137B. Letter grading.

239. Current Topics in Computer Science: Programming Languages and Systems. (2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer science program-ming languages and systems in which instructor has developed special proficiency as consequence of research interests. May be repeated for credit with topic change. Letter grading.


241B. Pictorial and Multimedia Database Manage- ment. (4) Lecture, three and one half hours; discussion, 30 minutes; laboratory, one hour; outside study, seven hours. Requisite: course 241A. Multimedia data: alphabetic, long text, images/pictures, video, and audio. Multimedia information systems requirements. Data models. Searching and accessing databases andnocademic databases. Image and video processing and audio content. Querying, visual languages, and commu-nication. Database design and organization, logical and physical. Indexing methods. Internet multimedia standards. Other topics at discretion of instructor. Letter grading.

244A. 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, semantic query answering, multi-database systems, fault recovery techniques, network partitioning, examples, trade-offs, and design experi-ences. Letter grading.

245. Big Data Analytics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 143 or 180 or equivalent. With unprecedented rates at which data is being collected, there is almost complete data. Human endeavors, there is emerging economic and sci-entific need to extract useful information from it. Data analytics is process of automatic discovery of patterns, characteristics, and relationships in large datasets: data storage, data flow, data visualization, and cloud computing. Survey of main topics in big data analytics and latest advances, as well as wide spectrum of applications such as bioin-formatics, commerce, environmental study, financial market study, multimedia data processing, network monitoring, social media analysis. Letter grading.

246. Web Information Management. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 112, 143, 180, 181. Designed for graduate students. Scope of Web data requires novel algorithms and principles for their management and retrieval. Study of Web characteristics, algorithms and management techniques needed to build computer systems suit-able for Web environment. Topics include Web meas-uring techniques, large-scale data mining algorithms, efficient search engines, data mining, and security and privacy. Letter grading.

247. Advanced Data Mining. (4) Lecture, four hours; outside study, eight hours. Requisite: course 145 or equivalent. Various algorithms, and techniques of data mining on different types of datasets, covering basic data mining algo-rithms, advanced topics on text mining, recommender systems, and graph/network mining. Team-based project involving hands-on practice of mining useful knowledge from large data sets is required. 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. May be repeated for credit with consent of instructor. Letter grading.

251A. Advanced Computer Architecture. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 211, 211B. Computer architecture, 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 examples, introduction to parallel architec-tures. Letter grading.

251B. Parallel Computer Architectures. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. Recommended: course 251A. SIMD and MIMD systems, pipelined parallel processors, distributed-shared-memory systems, messages-passing systems, multicore chips, clusters, interconnection networks, host-network interfaces, switching element design, communication primitives, cache coherence, memory consistency models, synchronization primitives, state-of-art design examples. Letter grading.

252A. Arithmetic Algorithms and Processors. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. Algorithmic and hardware techniques for exploiting parallelism at multiple levels. Current re-search areas. Examples of contemporary arithmetic ICs and processors. Letter grading.


265A. Modern Design of VLSI Circuits and Systems. (4) Same as Electrical and Computer Engineering M216A. Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, two hours. Requisites: course 216, course 251A. Overview of VLSI design and implementation technology, chip microarchi-tecture, and system architecture. High-performance building blocks, such as chip multiprocessors (CMPs). On-chip and off-chip communication. Mechanisms for exploiting parallelism at multiple levels. Current re-search areas. Examples of chips and systems. Letter grading.
M225C. LSI in Computer System Design. (Same as Electrical and Computer Engineering M215C.) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course M258A. LSI/LSI 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. (Same as Electrical and Computer Engineering M216C.) Lecture, four hours; outside study, eight hours. Detailed study of various physical design automation problems in the fields of logic synthesis, design, and routing. Emphasis is placed on the design of physical design automation systems. Letter grading.

259G. Logic Synthesis of Digital Systems. (Same as Electrical and Computer Engineering M260C.) 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 two-level Boolean network optimization; multilevel Boolean network optimization; technology mapping for standard cell designs and field-programmable gate arrays (FPGA) designs; retiming for sequential circuits; and inclusion of decision diagrams (BDDs). Letter grading.

259H. Analysis and Design of High-Speed VLSI Interconnects. (Same as Electrical and Computer Engineering M259A, 259B, 259C.) Lecture, four hours; outside study, eight hours. Requisites: courses M258A, 258F. Detailed study of specific problems in analysis and design of high-speed VLSI interconnects at both integrated circuit (IC) and package 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.

259H. Current Topics in Computer Science: System Design/Architecture. (2 to 12) Lecture, four hours; outside study, two hours. Topics announced in advance by department. Selections from design, advanced topics in logic, architecture, 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. (Same as Statistics M232A.) Lecture, four hours. Recommended requisite: course 180. Problems of identifying patterns in data. Machine learning allows computers to learn potentially complex patterns from data and to make accurate predictions 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 include supervised learning, regression and classification, unsupervised learning, clustering, reinforcement learning, and evolutionary algorithms. Letter grading.


262A. Learning and Reasoning with Bayesian Networks. (Same as Statistics M232A.) Lecture, four hours; outside study, eight hours. Requisite: course 180. Review of elementary probability. Emphasis is placed on the design of physical design automation systems. Letter grading.


263A. Language and Thought. (Same as Statistics M232A.) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 161. Introduction to natural language processing (NLP), with emphasis on semantics. Presentation of process models for variety of tasks, 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. Animats-Based Modeling. (Same as Statistics M232A.) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 161. Introduction to animal and artificial life-like software agents embedded in simulated dynamic environments. Emphasis on modeling: goal-oriented behavior via neurocontrollers, adaptation via re-organization of programming; learning. Animat-based tasks include foraging, mate finding, predation, navigation, predator avoidance, cooperative nest construction, communication, and parenting. Letter grading.

264A. Automated Reasoning: Theory and Applications. (Same as Statistics M232A.) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course 180. Introduction to theory and practice of automated reasoning using proof systems. Topics include logic and syntax of formal languages; algorithmic and complexity results for logical reasoning, including satisfiability and entailment; automated theorem proving: knowledge bases; effect of these restrictions on expressive- ness, compactness, and computational tractability; applications of automated reasoning to diagnosis, planning, design, formal verification, and reliability analysis. Letter grading.


270. Seminar: Current Topics in Artificial Intelligence. (Same as Statistics M232B.) Seminar, two hours; outside study, four hours. Designed for students undertaking thesis research. Discussion of advanced topics and current research in computational neuroscience, robotics, and connectionism as paradigm for parallel and concurrent computation in application to problems of perception, vision, multi-modal sensory integration, and robotics. May be repeated for credit. Letter grading.

274. Seminar: Current Topics in Artificial Intelligence. (Same as Statistics M232B.) Seminar, two hours; outside study, four hours. Designed for students undertaking thesis research. Discussion of advanced topics and current research in computational neuroscience, robotics, and connectionism as paradigm for parallel and concurrent computation in application to problems of perception, vision, multi-modal sensory integration, and robotics. May be repeated for credit. Letter grading.
CM286. Computational Systems Biology: Modeling and Simulation of Biological Systems. (4) (Same as Bioengineering CM286.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic biosystems modeling and computer simulation methods for studying life sciences problems and systems at multiple levels of organization. Control system, multicompartamental, predator-prey, pharmacokinetik (PK), pharmacodynamic (PD), and other structural and algorithmic models related to life sciences problems at molecular, cellular (biological path- ways/networks), organ, and organismic levels. Both theory- and data-driven modeling, with focus on transcriptional and posttranslational regulatory mechanisms in math- ematics models and implementing them for simulation and analysis. Basics of numerical simulation algo- rithms, with modeling software exercises in class and PC laboratory assignments. Concurrently scheduled with course CM186. Letter grading.

CM287. Research Communication in Computa- tional and Systems Biology. (4) (Same as Bioengi- neering CM287.) Lecture, four hours; outside study, eight hours. Requirement: course CM286. Closely di- rected, interactive, and real research experience in ac- tive quantitative systems biology research laboratory. Direction on how to focus on topics of current interest in scientific community, appropriate to student inter- ests and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with research for major empirical or effective research reporting, both oral and written. Concurrently scheduled with course CM187. Letter grading.

288S. Seminar: Theoretical Computer Science. (2) Seminar, two hours; outside study, six hours. Requi- sites: courses 280A, 281. Intended for students un- dertaking thesis research. Discussion of advanced topics and current research in such areas as algo- rithms and complexity models for parallel and concur- rent 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. Requirement: course CM282B. Consideration of advanced cryptographic protocol design and analysis. Topics include noninteractive zero- knowledge proofs, zero-knowledge arguments; current- generation non-black-box zero-knowledge IP=PSPACE proof, stronger notions of security for public-key encryption, including chosen-ciphertext security; intractability of computational problems; complexity classes; complexity of dynamic adversary; nonlinearity and composability of secure protocols: software protection; threshold cryptography; identity-based cryptography; private in- formation retrieval against man-in-the-middle attacks; voting protocols; identification protocols; dig- ital cash schemes; lower bounds on use of crypt- ographic primitives, software obfuscation. May be re- peated for credit with topic change. Letter grading.

M283A-M283B. Topics in Applied Number Theory. (4-4) (Same as Mathematics M208A-M208B.) Lecture, three hours. Basic number theory, including congru- ences and prime numbers. Cryptography: public-key and digital signatures. Attacks on cryptographic systems. Primality testing and factorization methods. Elliptic curve methods. Topics from coding theory: Hamming codes, cyclic codes, Gilbert-Varshamov bound. S/U or letter grading. 284A-284ZZ. Topics in Automata and Languages. (4 each) Lecture, four hours; outside study, eight hours. Requirement: course 181. Additional requisites for each offering announced in advance by department. Selection from finitely generated languages, grammars, machines, operators; pushdown automata, con- text-free languages and their generalizations, parsing; multidimensional grammars, developmental systems; machine learning. Substitutes of some current and planned sections: Context-Free Languages (284A), Parsing Algorithms (284B). May be repeated for credit with consent of instructor and topic change. Letter grading.

M290A. Seminar: Research Seminar: Computer Science. (4) Seminar, to be arranged. Preparation: apprentice per- sonnel employment as teaching assistant, associate, or fellow. Research apprenticeship under active guid- ance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U 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, effi- ciency, implementation, and application. May be re- peated for credit. S/U grading.

375. Teaching Apprenticeship Practicum. (1 to 4) Sem- inar, to be arranged. Preparation: apprenticeship per- sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid- ance 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, four hours; outside study, two hours. Limited to graduate Computer Science Department students. Seminar on being effective teaching assistant, including preparation, classroom presentation, encour- aging interactive discussion, active learning, office hours, review sessions, making up and grading as- signments and exam questions, proctoring exams, and grading. S/U grading.

495B. Teaching with Technology. (2) Seminar, two hours; outside study, four hours. Limited to graduate Computer Science Department teaching assistants. Seminar for teaching assistants covering how tech- nology can be used to aid instruction in and out of classroom. S/U grading.

497D-497E. Field Projects in Computer Science. (4-4) Fieldwork, to be arranged. Students are divided into teams led by instructor; each team is assigned one external company or organization that they inves- tigate as candidate for possible computerization, sub- mitting team report of their findings and recommenda- tions. In Progress (497D) and S/U or letter (497E) grading.

596. Directed Individual or Tutorial Studies. (1 to 8) Tutorial, to be arranged. Limited to graduate computer science students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced tech- nical problems. S/U grading.
limited to, core teaching and learning, independent research, and laboratory experience in museums and 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 sector and beyond.

The aim of the program is to train the next generation of multidisciplinary researchers, heritage practitioners, and cross-cultural leaders in the theoretical and experimental developments and policy of conservation and sustainable preservation of material culture. Through this training, graduates will bring innovative, cutting-edge methods and holistic approaches to the conservation profession. More specifically, these degree programs aim to provide students with integrated, comprehensive curricula to foster the next generation of conservation professionals and leaders with strong research, theoretical, and applied qualitative and quantitative skills; rigorous training in conservation theory, praxis, ethics, policy, and research; substantive research training in a specific domain of application in conservation; and experiential learning and mentoring in communication, scientific writing skills, and the ability to work in multidisciplinary teams.

The objectives of the program are to provide students with a solid educational base and practical training in the conservation of both archaeological and ethnographic materials, as well as an appreciation of the often complex issues related to significance, access, and use of these materials that can be very different from the criteria for conservation of fine art or historical materials. The special focus of the program and its interdisciplinary curriculum serves the archaeological, scientific, native, and cultural minority communities alike and offers a nexus at the boundaries of conservation, archaeology, ethnography, the natural sciences, and engineering.

The partnership between UCLA and the Getty in establishing the program ensures that both a major research university and an institution with a principal mandate for conservation of world cultural heritage section and beyond.

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.

Graduate Degrees

Conservation of Archaeological and Ethnographic Materials

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.
211. 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 treatments. General chemistry, physics, and physical chemistry (atomic structure bonding, etc.), fluid transfer, behavior of diffusion, interfaces, surface tension, wetting, adsorption, adhesion, dissolution and crystallization, mechanical properties (properties/characterization), phase transformations (glass, metals and ceramics). Letter grading.

212. Conservation and Stewardship: Science I: Analytical Imaging and Documentation in Conservation of Materials. (4) Formerly numbered 212.) (Same as Materials Science M212L.) 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 (deterioration) and technological features of archaeological and ethnographic materials. Development of basic theoretical knowledge on imaging and photonics technology and practical skills on conservation photo-documentation, analytical (forensics) photography, and advanced new imaging technologies. Letter grading.


220. Field Methods in Archaeological Conservation: Readiness, Response, and Recovery. (4) Laboratory, four hours. Overview of risk (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 measures, including burial, shelters, rescue excavations, and documentation as well as developing inventories and awareness campaigns. First aid response covers development of on-site emergency risk assessments to evaluate damage and putting triage theory into practice, salvaging rescue operations, emergency response in situ stabilization and protection (using locally available materials), and training. Recovery is based on documentation, lifting methods, handling, transportation, and storage of materials and techniques used to prevent and mitigate damage and to recover and safeguard archaeological artifacts. Concurrently scheduled with course C120. Letter grading.

221. Principles, Practice, and Ethics in Conservation. (4) Lecture, three hours. An overview focusing on what is involved in preservation of works of art, from LA Murals to Sistine Chapel, from ancient wall paintings to Statue of Liberty. Discussion of issues of preservation and restoration of these cultural heritage materials and strategies found in museum and outdoor environment contexts. Materials and conservation strategies in the fields of cultural heritage materials, in relation to preservation efforts needed to prevent decay and loss. Introduction to examples of preservation issues related to sites, buildings, and collections. Ethical and contextual aspects with respect to changing values in conservation of cultural materials, illustrating how cultural materials may have been treated differently according to the issues at hand.

222. Conservation and Stewardship: Science II. (4) Laboratory, four hours. Designed for graduate conservation students. Introduction to work as conservators in indigenously repositories housing cultural collections and centers, and importance of material selection and properties in baskets they are treating. Letter grading.

223. Issues in Preservation and Management of Archaeological and Cultural Sites. (4) Seminar, three hours. Designed to offer practical model of preservation and management planning for heritage sites that reflect the cultural heritage. Problems resulting from preservation planning following iterative processes for sustainable heritage preservation addressing threats and challenges such as climate change and global warming. Emphasis on 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 provide a technical strategy in line of site preservation management, including visitors' organization, urban development, socioeconomic growth, and tourism development. Letter grading.


226. Structure, Properties, and Deterioration of Materials: Stone and Adobe. (4) Laboratory, four hours. Recommended requisite: course 220. Designed for graduate conservation students. How to recognize characteristic deterioration problems found in organic materials from archaeological and ethnographic contexts and introduction to typical treatments used historically and currently for these materials. Materials focus on wood, bark, and cloth, paper, and plastics and rubber. Letter grading.


232. Conservation Laboratory: Organic Materials I. (4) Laboratory, four hours. Recommended requisite: course 262. Designed for graduate conservation students. How to recognize characteristic deterioration problems found in organic materials from archaeological and ethnographic contexts and introduction to typical treatments used historically and currently for these materials. Focus on wood, bark, and cloth, paper, and plastics and rubber. Letter grading.


DENTISTRY

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, 1 hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas 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 at least 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 credit with topic or instructor change. P/NP 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 16 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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Ramesh Srinivasan, PhD

Assistant Professors

Isla Hansen, MFA
Lauren L. McCarthy, MFA

Academic Administrator

Chandler McWilliams, MA, MFA

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 chal-
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 definition of spatial, material, and auditory elements
- Thorough research of appropriate and relevant production methods
- Analysis, review, and critique of others’ work

**Preparation for the Major**

**Required:** Design|Media Arts 8, 10, 21, 22, 24, 25, 28.

**The Major**

**Required:** Twelve upper-division courses: Design|Media Arts 101, 104; six courses selected from 152, 153, 154, 156, 157, 161, 163; three courses selected from 160, 171, 172, 173; and one capstone course selected from IS9A, IS9B, or IT9C.

*It is recommended that students have each term’s program approved by the departmental adviser.*

**Note:** Consult the Schedule of Classes for courses limited to majors only.

**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 BA**

**Capstone Major**

**Learning Outcomes**

- Deep understanding of the field through immersion
- Exploration and development of ideas through listening 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 definition of spatial, material, and auditory elements
- Thorough research of appropriate and relevant production methods
- Analysis, review, and critique of others’ work

**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 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 create their own use of Web design and understand enormous potential of Internet. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP 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 in each discipline area, with focus on the 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 area, developing 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 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 fundamental skills for preproduction and postproduction using latest digital software, 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 UCLA Game Lab 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 needs of high school 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 area, developing 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. P/NP grading.

6. **Art/Science and Technology Studio/Laboratory.** (4) Studio/laboratory, 40 hours. Limited to high school students. Two-week summer course designed to meet needs of high school students interested in exploring their creative potential within fields of design media arts, 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
Upper-Division Courses

101. Media Arts: Introduction. (5) Lecture; three hours; outside study, 12 hours. Limited to and required of Design | Media Arts majors. Survey of media arts, their history, aesthetics, and cultural roles from late-19th century to present. Investigation of media arts within broad historical and cultural framework. Discussion of parallels and links with other cultural forms, including history of technology and various art and design practices. P/NP or letter grading.

104. Design Futures. (5) Lecture; three hours; outside study, 12 hours. Preparation: completion of preparation for major courses. Open to nonmajors with consent of instructor. Critical examination of design practice and theory of 20th and 21st centuries, incorporating historical as well as speculative methodologies. Consideration of how various design practices and techniques related to each other across culture and media, with streamlining on communication design. P/NP or letter grading.

152. Tangible Media. (5) Studio, six hours; outside study, nine hours. Requisites: courses 22, 28, and 101 or 104. Through workshops, readings, lectures, critiques, and discussions, reevaluation of role of desktop computers (and their mice, trackpads, keyboards, screens, and gamepads) playing in forming our understanding of what is technically possible, sensible, logical, foolish, magical, and intuitive.

153. 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 motion. 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 preparation for major courses. Requisites: courses 21, 22, 25, and 101 or 104. Focus on relationship of type to content, image, and materials. Acquisition of knowledge of and sensitivity to typography in context of complex communication problems in print and digital media. Focus on concept and content development, and articulation/translation methodology for visual communication. P/NP or letter grading.

156. Three-Dimensional Modeling and Motion. (5) Studio, six hours; outside study, nine hours. Requisites: courses 28, 101 or 104, 157. Selected topics in interactive and digital media explored through variety of approaches that may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 15 units. Letter grading.

159A-159B. Capstone Senior Project. (5–5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: courses 24, 28, 101 or 104, 156. Focus on creating final project that explore various aspects of game design: rule design, game balance, multiplayer strategy, complexity, randomness, polemics, narrative, physical interaction, and aesthetic and technical aspects of physical game design. P/NP or letter grading.

159A-159B. Capstone Senior Project. (5–5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: courses 24, 28, 101 or 104, 156. Focus on creating final project that explore various aspects of game design: rule design, game balance, multiplayer strategy, complexity, randomness, polemics, narrative, physical interaction, and aesthetic and technical aspects of physical game design. P/NP or letter grading.

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 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.
Digital Humanities

Interdisciplinary Minor

College of Letters and Science
212 Royce Hall
Box 951539
Los Angeles, CA 90095-1539

Digital Humanities
310-825-1147
Minor e-mail
Todd S. Presner, PhD, Chair

Faculty Committee

Jon A. Christensen, PhD (Environment and Sustainability)
Dana Cuff, PhD (Architecture and Urban Design, Urban Planning)
Maria (Maite) T. de Zubiaurre, PhD (Germanic Languages, Spanish and Portuguese)
Johanna R. Drucker, PhD (Design/Media Arts, Information Studies)
F. Tobias Higbie, PhD (History)
Christopher Johanson, PhD (Classics)
Christopher M. Keilty, PhD (Anthropology, Information Studies, Society and Genetics)
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)
Francis F. Steen, PhD (Communication)
Willeke Z. Wendrich, 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 interprets 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 projects-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 (or Art History M110C, 125A, M125B (or Architecture and Urban Design M125B), M125C (or Architecture and Urban Design M125C), 162, C165, C167 (or Anthropology C110Q), Anthropology M116R (or Chinese M183), Architecture and Urban Design 122, Armenian 123, Art History C145A, C145B, Classics 164, 166B, Design/Media Arts 104, Digital Humanities 151, 195 or 196, English 118A, History 188, Korean 183, 187, Russian 121, 129, Scandinavian C133A, C171, Society and Genetics 131, 175, Spanish 130, 150, 170, Urban Planning 129, 141. Variable topics courses may be taken as topics apply.
**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 illuminating 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 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-segmentation, to 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) 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.

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. Placement 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 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. Letter grading.

198HC. 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.

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. Culminating project required. May be repeated for maximum of 12 units. Letter 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 theories and methods 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.


150. Advanced Topics in Digital Humanities. (4) Seminar, three hours. Requisite: course 101. Introduction to advanced research methods or thematic issues in digital humanities such as database and visualization technologies, social media technologies, application programming interfaces, and digital mapping to acquire familiarity with particular set of technologies by learning practical research methods and theoretical issues to carry out advanced research in this area. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

151. Advanced Topics in Urban Humanities. (4) Seminar, three hours. Introduction to advanced research topics in urban humanities. Looking at specific urban subject matters related to notion of spatial equity in context of Los Angeles, exploration of how certain spatial technologies such as geographic information system (GIS) capacity, mobile technology, real-time data collection, social media, digital databases, and interactive web platforms can be deployed to research and document urban experience. Familiarization 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.

201. Introduction to Digital Humanities. (5) Seminar, three hours; laboratory, one hour. Introduction to field of digital humanities. Historical overview of field from its beginning in post-World War II era 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. Acquaintance with particular 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.

**DISABILITY STUDIES**

**Interdisciplinary Minor**

College of Letters and Science

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Los Angeles, CA 90095-1430

**Disability Studies**

310-206-1667
E-mail contact

Victoria E. Marks, BA, Chair

**Faculty Committee**

**Faculty Committee**

Bruce L. Baker, PhD (Psychology)
Anurima Banerji, PhD (World Arts and Cultures/Dance)
Helen Deutsch, PhD (English)
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 undergraduates 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, transforming 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 health, 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-term internship or research apprenticeship, and a senior capstone project, students in...
Disability Studies / 341

Disability Studies Minor

To enter the Disability Studies minor, students must have an overall grade-point average of 2.7 or better and 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 adviser. Applications are available on the minor website and must be filed with College Academic Counseling, A36 Murphy Hall. For information and questions, contact the department adviser 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 (ULCSS) program or the Center for American Politics and Public Policy (CAPPPP) 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- or three-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.

Undergraduate Study

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. Broadened view of lived experience and 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 design and investigation that challenges sociocultural norms. Consideration of how disability aesthetics informs photography, performance art, outsider art, and curatorial practices. 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.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to 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. P/NP or letter grading.

99HC. 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. Perspectives on Disability Studies. (5) Lecture, one hour; discussion, two hours. 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 power dynamics 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 texts 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 accompany some types of disability, (2) study of role of disability and particularly mental illness in representations of criminality and violence, and (3) disablement or emergent disablement (injuries, illnesses, and impairments created by social inequity) as consequence of intersecting 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 across social movement efforts and campaigns. P/NP or letter grading.

M103. Studies in Disability Literature. (5) (Same as English M103.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of modes of disability in literature, with specific emphasis on thematic concerns. Topics may include introduction to disability studies; race, gender, and disability; 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) Lecture, two hours; studio, two hours. Examination through eyes of disability activists and artists interrogating how aspects of the body get deemed nonnormative. Investigation of what it means to push against pressure to fit in, as well as how to contest invisibility of difference when it happens 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.

112. Disability and the Media. (4) (Same as Theater M112.) Lecture, four hours. Analysis and critique of depiction of disability in media. 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.

M115. Enforcing Normalcy: Deaf and Disability Studies. (4) (Same as American Sign Language M115.) Lecture, three hours. Exploration of historical, medical, social, political, philosophical, and cultural influences that have constructed categories of normality, disability, and deafness. Building on writing of Michel Foucault and critical work in field of disability studies, inquiry into institutions that have enforced standards of normalcy throughout 19th and 20th centuries to present. Primarily for people of color and those who are not hearing, in West, history of eugenics, and contemporary bioethics issues confronting disability and deaf communities. P/NP or letter grading.

120. Special Topics on Race and Disability. (4) Lecture, four hours. Exploration of race and disability, with emphasis on lived realities of people of color with disabilities. Use of scholarly texts from disability studies, sociology, gender studies, or critical race studies to investigate and critique mechanisms and systems that shape race, ableism, and dominant/non-dominant power dynamics. P/NP or letter grading.
131. Alternative Approaches to Language Acquisition. (4) (Formerly numbered M131.) Seminar, four hours. Examination of ways in which phonology, morphology, syntax, semantics, pragmatic, and discourse structures influence each other. Emphasis on the nature of language acquisition and the relationship between language and thought. P/NP or letter grading.

132SL. Applied Autism Intervention: Multidisciplinary Perspective. (4) Seminar, 90 minutes; fieldwork, six hours. Service-learning course for undergraduate students in Early Childhood Partial Hospitalization Program (ECPHP). Introduction to history, theory, and practice of autism interventions and social and cultural factors that determine how society and medical profession understand autism as diagnostic category. Study of processes involved in identifying autism as represented in psychological, neuroscientific, and disability studies. Review of social versus medical model of disability and analysis of dominant as well as counter discourse on autism. Overview of broader social and political context of living with disabilities as well as parent perceptions. P/NP or letter grading.

132US. Women and Disability. (4) 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 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 disability and disability identity and activism are represented in various fields and disciplines, and how their 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.

142P. Perspectives on Disability and Sexuality. (4) Lecture, three hours. Exploration of definitions and some characteristics of those conditions that legal systems recognize 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, gendered, and economic regimes. Exploration of primary approaches U.S. legal system takes to address the experiences of people with disabilities and of people with mental disabilities. Discussion of some key challenges and controversies affecting policy and practice in this area and varying strategies for engaging those challenges. P/NP or letter grading.

154. Mental Disability Law. (4) Lecture, three hours. Examination of definitions and some characteristics of those conditions that legal systems recognize 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, gendered, and economic regimes. Exploration of primary approaches U.S. legal system takes to address the experiences of people with disabilities and of people with mental disabilities. Discussion of some key challenges and controversies affecting policy and practice in this area and varying strategies for engaging those challenges. P/NP or letter grading.

1549. Mental Disability Law. (4) Lecture, three hours. Examination of definitions and some characteristics of those conditions that legal systems recognize 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, gendered, and economic regimes. Exploration of primary approaches U.S. legal system takes to address the experiences of people with disabilities and of people with mental disabilities. Discussion of some key challenges and controversies affecting policy and practice in this area and varying strategies for engaging those challenges. P/NP or letter grading.

1549. Mental Disability Law. (4) Lecture, three hours. Examination of definitions and some characteristics of those conditions that legal systems recognize 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, gendered, and economic regimes. Exploration of primary approaches U.S. legal system takes to address the experiences of people with disabilities and of people with mental disabilities. Discussion of some key challenges and controversies affecting policy and practice in this area and varying strategies for engaging those challenges. P/NP or letter grading.

150. Human Rights, International Development, and Disability. (4) Lecture, four hours. Examination of definitions and some characteristics of those conditions that legal systems recognize 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, gendered, and economic regimes. Exploration of primary approaches U.S. legal system takes to address the experiences of people with disabilities and of people with mental disabilities. Discussion of some key challenges and controversies affecting policy and practice in this area and varying strategies for engaging those challenges. P/NP or letter grading.

1517. Rechorographing Disability. (4) (Same as Dance M157.) Seminar, four hours. Through study of range of performance by, featuring, or about people who identify as disabled, examination 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 polyliterature Pickup as political resistance or 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 choreography and performance works which explore ideas through movement and dance-making. P/NP or letter grading.

M161. Sports, Normativity, and Body. (4) (Same as Gender Studies M161.) Lecture, four hours. Since creation of International Olympic Committee in 1894, athletes with disabilities have had, and been denied, formal opportunities to compete with able-bodied athletes. Review of some key debates and discussion concerning intersections of athletic competition and disability, addressing variety of perspectives and themes on disability and sport, such as passing, representation, inclusion, gender, disability, and masculinity. Sources include readings, film, television, and biographical writings that address sports, body and disability generally, and Special Olympics specifically.

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 non-speaking face challenges navigating social situations, and this is further complicated by how media and film portray these individuals. Explo- ration of documentary filmmaking as catalyst to edu- cate greater community on importance of inclusion of people with disabilities. Students work together with disability rights organizations to create a documentary non-speaking or mildly speaking, to create docu- mentary short films. Students explore issues related to autism and disability while gaining exposure to obser- vational, interview-based, and participatory documen- tary shooting and editing techniques. Letter grading.

M164A. Documentary Production for Social Change: Mobility in Los Angeles. (5) (Same as Science M164.) Fieldwork, six hours. Exploration of documentary film- making as catalyst for social change, using daily commu- nes in Los Angeles as case study. Introduction to is- sues of place, identity, and power in the production of experiences of commuting, access to public transpor- tation, and car-based versus alternative (bike and pe- destrian) forms of commuting. Exposure to observa- tional, observational, interview-based, and participatory documentary filmmaking. Letter grading.

164B. Documenting Dis/Ability on Film. (4) Lecture, four hours. Fieldwork, six hours. Exploration of documentary film- making as catalyst for social change, using daily commu- nes in Los Angeles as case study. Introduction to is- sues of place, identity, and power in the production of experiences of commuting, access to public transpor- tation, and car-based versus alternative (bike and pe- destrian) forms of commuting. Exposure to observa- tional, observational, interview-based, and participatory documentary filmmaking. Letter grading.

165. Future of Humanity: Bioethics of Health and Disability. (4) (Same as Sociology M165.) Lecture, three hours; discussion, one hour. Should society encourage or discourage people who are ill? Should parents choose to have abortion if their fetus will likely have disability? Should person 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 tear out of genetic code? Study of ethics of health and disability with critical discussions of topics including human re- production, 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 hu- manity, structure of our world, and how we live our lives. P/NP or letter grading.


183. Being Human: Identity, Genomics and Neuroscience. (5) (Same as Honors Collegium M183.) Seminar, three hours. Exploration of relation- ship between identity and mental illness through differ- ent 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. Enduring 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.

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. P/NP or letter grading.

189A-199B. Directed Research in Disability Studies. (2–4) Tutorial, one hour. Required: 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. Letter grading.

199C. 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.

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Rosario Esposito, PhD

Scope and Objectives
The disciplines of geology, geochemistry, geophys- ics, 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 geo-chemistry, 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 appropri- ate 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, gov- ernment, journalism, law, medicine, or public health. Those who intend to become professional geologists, geochemists, or geophysicists and/or to
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 organismic biology course; Mathematics 3A and 3B, or 31A and 31B; Physics 1A or 5A. 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, one year of calculus, and two general chemistry courses with laboratory for majors.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Geology BS

Capstone Major

Learning Outcomes
The 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 1, 5, 61; Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering M20; Mathematics 31A, 31B, 32A, 33A; Physics 1A, 1B, 1C, 4AL, 4BL. Recommended: Mathematics 32B. Each course must be passed with a minimum grade of C–.

Transfer Students
Transfer applicants to the Geology major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one year of calculus, and two general chemistry courses with laboratory for majors.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: 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 100, 104, 105 and 105A, M107, M109, 110, 125, M127, M131.

Preparation for the Major

Required: Earth, Planetary, and Space Sciences 1, 5, 6, 71; Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L; Life Sciences 1; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 4AL, and 4BL, or 5A and 5B. Each course must be passed with a minimum grade of C–.

Transfer Students
Transfer applicants to the Geophysics major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one year of calculus, and one additional upper-division course from Earth, Planetary, and Space Sciences other than 100; two courses from Geography 100, 104, 105 and 105A, M107, M109, 110, 125, M127, M131.

Preparation for the Major

Required: Earth, Planetary, and Space Sciences 1, 5, 6, 71, and one course from 1 (preferred) through 15; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 4AL, 4BL. Each course must be passed with a minimum grade of C–.

Transfer Students
Transfer applicants to the Geophysics major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one general physics course with laboratory for majors, and one year of calculus. A second year of calculus and a second semester of calculus-based physics with laboratory are recommended.
Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required Core: Earth, Planetary, and Space Sciences 136A, M140, 171, one capstone field research course (136C), one course from 152, 153, 154, 155; Physics 105A, 105B, 110A, 110B, 131. Substitutions of equivalent courses from engineering or other physical sciences departments must be approved by the undergraduate adviser.

At least three courses from one of the following areas are also required: (1) applied geophysics — Earth, Planetary, and Space Sciences 111, 112, 122, 136A, 150, 152, (2) marine geophysics — courses 119, 122, 136B, 150, 153, (3) planetary geophysics — courses 150, 153, 154, 155, (4) solid earth geophysics — courses 119, 122, 136B, 150, 152, or (5) space physics — Atmospheric and Oceanic Sciences C170.

Any course used to satisfy an area requirement cannot also be applied toward the core requirements listed above.

Honors Program

The honors program in geology or geophysics is intended to provide exceptional students an opportunity for advanced research and study under the tutorial guidance of a faculty member. Requirements for admission to candidacy are the same as those required for admission to the Honors Programs of the College of Letters and Science. Qualified students wishing to enter the program must submit a completed application form to the departmental honors committee near the end of their junior year. Honors in geology or geophysics are awarded at graduation to those students who have a cumulative grade-point average of 3.5, have completed at least 90 graded units at the University of California, and have completed a minimum of two terms (8 units) of Earth, Planetary, and Space Sciences 198 leading to the preparation of a satisfactory honors thesis. Students demonstrating exceptional ability are awarded highest honors.

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 S13, 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.

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): Earth, Planetary, and Space Sciences 136A, 171, and three courses from M140, 152, 153, 154, 155.

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.

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, 151.

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 (M.S), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Geochemistry, Master of Science (M.S), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Geology, and Master of Science (M.S) 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.

3. Astrobiology, (5) Lecture, three hours; discussion, one hour; two field days. Origin, evolution, distribution, and future of life on Earth and in universe, paralleling major scientific initiative of NASA. Course material pri-
mainly from planetary and Earth science, paleontology and biological astronomy, chemistry, and physics, with relatively little from mathematics. P/NP or letter grading.

5. Environmental Geology of Los Angeles. (4) Lecture, three hours; discussion, two hours; field trips. Geologic processes and sources 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.


8. Earthquakes. (5) Lecture, three hours; laboratory, one hour; one field trip or evening field event. 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. (8) Lecture, three hours; discussion, one hour; one field day. Globalization and the environment. Human impact on the environment and interplay between biology, human activities, and natural processes. Response to natural disasters and mitigation of these natural events affecting human life. P/NP or letter grading.

15. Blue Planet: Introduction to Oceanography. (5) Lecture, three hours; laboratory, one hour; field work. Oceanography; current topics. Credit may not be applied toward other major requirements. P/NP or letter grading.


17. Dinosaurs and Their Relatives. (5) Lecture, three hours; laboratory, two hours; one optional field trip. Designed for nonmajors. Exploration of the history of life in the Mesozoic Era.化石的鉴定，系统发育分类，和古生物学。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.


51. Mineralogy: Earth and Planetary Materials. (5) Lecture, three hours; laboratory, four hours. Enforced requisite: course 5. Recommended: completion of chemistry, physics, or earth science prerequisites. Principles of mineralogy, mineral structure and bonding and crystal chemistry, with focus on materials of interest for Earth and planetary sciences and major rock-forming minerals. Laboratory study of common structural minerals and properties, including hand sample identification, microscopy and optical and electron microscopy, X-ray diffraction, and spectoscopical techniques. P/NP or letter grading.

61. Isotopic Mass Spectrometry. (4) Lecture, two hours; laboratory, three hours; five field days. Enforced requisite: course 1. Planning, creation, and interpretation of geo logical maps, including both practical and philosophical problems that arise. Topographic and geochemical mapping in field. Interpretation of published maps in laboratory. P/NP or letter grading.

71. Introduction to Computing for Geoscientists. (4) Lecture, three hours; laboratory, three hours; outside required study, three hours; introduction to writing programs in MATLAB, visualization of geoscience data, and comparison with models. P/NP or letter grading.

98N. 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. One hour. Limited to students in College Honors Program. Designed as adjacent to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings and discussion. Prerequisite: a major or minor in physical sciences, an enrollment of 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 a program with a research emphasis or major. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.


103B. Sedimentary Petrology. (5) Lecture, two to three hours; laboratory, six hours; 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; field trips. Enforced requisite: course 103B. Interpretation of metamorphic rocks based on field occurrence, mineralogical composition, texture, and reaction. Development of physical and chemical principles. P/NP or letter grading.


C107. 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 the environment. Concurrently scheduled with course C206. P/NP or letter grading.


111. Stratigraphic and Field Geology. (5) Lecture, three hours; laboratory, three hours; fieldwork, one day per week. Designed for graduate students. Geologic mapping, principles of stratigraphy, stratigraphic and structural geology, and map interpretation. P/NP or letter grading.


C113. Biological and Environmental Geology. (4) Lecture, three hours. Enforced requisites: Chemistry 14A and 14B (or 20A and 20B), Mathematics 3A, 3B, and 3C (or 31A and 31B). Recommended: at least one lower-division course in Earth, planetary, and space sciences. Intended for junior/senior life and physical sciences students. Study of chemistry of Earth's surface environment and interplay between biology, human activities, and geology. Introduction to the composition of Earth, including atmosphere, crust, and hydrosphere. Examining how these 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 C213. P/NP or letter grading.

CM114. Aquatic Geochemistry. (4) (Formerly numbered C114.) (Same as Atmospheric and Oceanic Sciences CM114.) Lecture, three hours; discussion, one hour. Recommended requisite: course C107 or Atmospheric and Oceanic Sciences M105. Fundamentals of biogeochemical cycles and biogeochemical 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. Metabolisms include different photoautotrophic, heterotrophic, and chemosynthetic pathways. Interpretation 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 1 or 2. Review of major groups of fossil organisms and their role in understanding geology and biology. P/NP or letter grading.

M118. Advanced Paleontology. (Same as Ecology and Evolutionary Biology M145.) Lecture, three hours; laboratory, three hours; S116 or Ecology and Evolutionary Biology 110 or 117. 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 stable isotopes, functional morphology, phylogenetics, and developmental biology. P/NP or letter grading.


120. Rubey Colloquium: Major Advances in Earth, Planetary, and Space Sciences. (4) Lecture, three hours. Designed for juniors/seniors. Lectures on major advances in Earth science offered by distinguished authorities (including regular faculty members). Supervision of continuity and assessment of student performance by faculty member. Content varies from year to year. If required, course 121 must be taken concurrently. P/NP or letter grading.


121F. Advanced Field Geology: Fieldwork. (4) Fieldwork, 20 hours. Advanced techniques in field geologic mapping and preparation of geologic maps and cross-sections using computer packages and sedimentary terrains. 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. Focus on development of motivational and public communication skills as practiced at outreach events and demonstrations, including communication of science in multicultural settings. Active participation required in minimum of three scheduled outreach events over course of term, providing perspective and basis for follow-up discussions on critical geosciences literacy at local, state, and national levels. P/NP or letter grading.

125. Volcanoes. (4) Lecture, three hours; laboratory, three hours; field trips (r). 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.

C126. Advanced Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Enforced requisite: course 103A. Understanding genesis of igneous rocks based on geochemical, tectonochemical, and other geological evidence and principles. Concurrently scheduled with course C262. P/NP or letter grading.

133. Historical and Regional Geology. (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 geologic evolution through time. Letter grading.

136A. Applied Geophysics. (4) Lecture, three hours; laboratory/field trips, six hours. Preparation: knowledge of MATLAB. Enforced requisites: course 71, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, Physics 1A, 1B, 1C, 4AL, and 4BL or 6A, 6B, and 6C. Seismic reflection and refraction, Fourier analysis and deconvolution, vibroseis, synthetic seismograms, marine seismics, seismic interpretation, gravity and magnetic fields, inversion uniqueness and depth rules. P/NP or letter grading.

136B. Applied Geophysics. (4) Lecture, three hours; laboratory/field trips, 10 hours. Enforced requisite: course 136A. Principles and techniques of exploration for mineral deposits. Magnetics, electric and magnetic fields. Methods include self potential, resistivity, induced polarization, electromagnetics, magnetotellurics, magnetics, P/NP or letter grading.

136C. Field Geophysics. (4) Lecture, three hours; discussion, one hour; laboratory, two hours; fieldwork, 10 hours. Enforced requisite: course 136A. Application of seismic, gravimetric, magnetic, electrical, and other geophysical methods to geologic and engineering problems. Practical aspects of geophysical exploration, 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: courses 61, 111, 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 of geologic materials. Engineering in light of geologic conditions, recognition, prediction, and control of subsidence, landslides, earthquakes, and other geologic aspects of urban development and 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. Fluid statics and thermodynamics, kinematics. Conservation laws and equations of fluid motion, circulation theorems and vorticity dynamics. Rotating frame, inertial flow. Letter grading.


152. Physics of Earth. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3A, 3B, Physics 1A, and tour of Easton Physics used to explore it. Isostasy, plate tectonics, mantle convection and geodynamics as observed 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 3A, 3B, Physics 1A, 1B, and 1AH, 1BH, and 1CH. Physics and chemistry of Earth’s oceans and atmosphere; origin and evolution of planetary atmospheres; biogeochemical cycles, atmospheric radiation and climate, energetics and dynamics of oceanic 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; cores, asteroids, comets, and meteors; celestial mechanics and dynamics; physics of planetary interiors, surfaces, and atmospheres. P/NP or letter grading.

156. Introduction to Space Plasma Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisite: Electrical Engineering 101A or Physics 110A. Senior-level introductory course on electrodynamics of ionized gases, with emphasis on fundamental 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 magnetic confinement of coherent radiation, particle beams, and fusion energy production. Letter grading.

C160. Field Seminar. (2 to 6) Seminar; three hours; discussion, one hour. Enforced 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 subdisciplines as prescribed. May be repeated for credit. Concurrently scheduled with course C260. P/NP or letter grading.

162. Application of Remote Sensing in Field. (4) Fieldwork, five hours; laboratory, three hours. Requisite: course 150. Application of remote-sensing techniques to field situations. Digital analysis and interpretation of near-infrared, thermal-infrared, and microwave data from satellite and airborne systems of study conducted at a site in California desert for testing hypotheses during week between Winter and Spring Quarters. Concurrently scheduled with course C262. P/NP or letter grading.

165. Tectonic Geomorphology. (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 bedrock weathering, soil formation, hillslope transport, and river and glacial erosion. How tectonics, climate, and underlying lithologies influence these processes in landscapes. P/NP or letter grading.

171. Advanced Computing in Geosciences. (4) Lecture, three hours; laboratory, three hours. Enforced requisites: course 71, Mathematics 3A, 3B, and 3C (or 31A and 31B). Original application of software to generate and test hypotheses with non-ideal or incomplete data sets. Interpolation/extrapolation with graphics to generate hypotheses; forward modelling from fundamental equations to explore implications; probabilistic testing of models against data. Examples and exercises from Earth and space sciences. Introduction to software used in research and industry. P/NP or letter grading.
C179. Search for Extraterrestrial Intelligence: Theory and Applications. (4) Lecture, two hours; laboratory, two hours. Enforced requisites: Mathematics 31B, Physics 1B. Recommended: course 71, Computer Science 61B, Program in Computer Science 10, and 10B. Search for extraterrestrial intelligence (SETI) is based on notation of astronomical, mathematical, statistical, and computational principles. Coverage of fundamental concepts in these disciplines in the context of SETI: abundance and architecture of extrasolar planetary systems; radio astronomy, including wave propagation and dispersion; signal processing, including Fourier transform and random processes, including Gaussian and Poisson statistics, and algorithm development. Design of observational program, acquisition of telescopic data, development of algorithms to analyze data, and writing of report on results. 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. Departmental sponsored experimental or temporary courses, such as those taught by visiting faculty members. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, one hour. Limited to undergraduate students. Study of current topics in Earth, planetary, 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 participating in research group. Discussion of current research and related topics. May be repeated for credit. Concurrently scheduled with course C296. P/NP grading.

190. 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 research project under direct supervision of faculty mentor. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Earth, Planetary, and Space Sciences. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation of research focus or faculty mentor. Culumination of project or paper project may be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


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 participate in re- search related to formation and evolution of solar system and of other planetary systems. Description of star/gas cloud formation process and subsequent evolu- tion of planetary systems by integrating observations and theory. Fosters interdisciplinary knowledge and communication between Departments of Earth and Space Sciences and Geology. Required for undergraduate and graduate students and faculty members. S/U or letter grading.


226. Physical Geochemistry. (4) Lecture, three hours; discussion, one hour. Enforced requisites: Mathematics 20A, 20B, and 20C. Use of physical chemistry in the interpretation of geologic phenomena. Thermodynamics, kinetics of reactions among minerals, nat- ural waters, and magmas; construction and interpreta- tion of phase diagrams; case studies of important geochemical and environmental issues. Concurrently scheduled with course C106. Additional independent research project and oral presentation required of graduate students. S/U or letter grading.


229. Isotope Geochemistry. (4) Lecture, three hours; discussion, one hour. Designated 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 C107. Advanced homework and class presentation required of graduate students. S/U or letter grading.


231. Mathematical Methods of Geophysics. (4) Lecture, four hours. Requisites: Physics 105A, 110A, 112, 131. Recommended: Physics 132. Designed to provide mathematical background required for stu- dents pursuing PhD in Geophysics and Space Physics, as well as related programs in department. Extensive survey of these methods, with focus on geophysical and geoscientific problems that geophysics students encounter in their research. Letter grading.

232. Biological and Environmental Geochemistry. (4) Lecture, three hours; discussion, one hour. De- signed for graduate physical and biological sciences students. Study of chemistry of Earth’s surface environment and interplay between biology, human activity, and geology. Introduction to origin and com- position of Earth, including atmosphere, crust, and hy- drosphere. Examination of how biogeochemical processes affect landscape evolution. Study of the role that biogeochemical processes play in the formation of abi- ogenic and petrogenic materials. Advanced laboratory. S/U or letter grading.

CM214. Aquatic Geobiology. (Formerly numbered C214.) (Same as Atmospheric and Oceanic Sciences CM237.) Lecture, three hours; discussion, one hour. Recommended: Chemistry 107 or Atmospheric and Oceanic Sciences M105. Fundamental geobiological processes in aquatic systems. Analysis of the role of aquatic microbes in controlling element cycling and nutrient dynamics of aquatic environments. Examination of the role of aquatic microbes in the formation of abiogenic and petrogenic materials. Laboratory. S/U or letter grading.
M216. Evolutionary Biology. (4) Same as Ecology and Evolutionary Biology M200A.) Lecture, two hours; discussion. Concepts and processes 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.

M217. Molecular Evolution. (4) Same as Ecology and Evolutionary Biology M231.) Lecture, two hours; discussion. Topics of advanced molecular evolution; special emphasis on molecular phylogenetics. Topics may include nature of gene, neutral evolution, molecular clocks, concerted evolution, molecular speciation, and phylogenetic algorithms. Themes may vary from year to year. May be repeated for credit. S/U or letter grading.

219. Planetary and Orbital Dynamics. (4) Lecture, four hours; laboratory, 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.

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 problems involving aspects of biology, geology, organic geochemistry, and cosmochemistry. 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 days. Enforced requisite: course 121F. Planning, execution, and presentation of geologic mapping projects at professional level. Resolution of problems of Northern California geology from synthesis of new and published research. 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; laboratory, two hours. Requisite: course 200A, 200B, 200C. Designed for physical sciences students with consent of instructor. Sources and waves in unbounded isotropic, anisotropic, and dispersive solids. Half-space problems. Guided reading in layered media, applications to dynamo fracture, nondestructive evaluation (NDE), and mechanics of earthquakes. 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, textural, and physical, and other geological evidence and principles. Concurrently scheduled with course C126. Graduate students required to read more recommended references and make class presentations on particular topics resulting from that reading, and lead seminar-type discussions on their selected topics. S/U or letter grading.

233. Metamorphic Petrology. (4) Lecture, three hours; laboratory, four hours. Requisites: courses 200C or Physics 210A. Physics of plasmas in space, including treatments 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.

240. Space Plasma Physics. (4) Lecture, three hours. Requisite: course 200C or Physics 210A. Physics of plasmas in space, including treatments 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, petrofacies, and paleotectonic reconstructions. S/U or letter grading.


245A-245B-245C. Current Research in Tectonics. (1–1–1) Seminar, one hour; field trips, 10 days. Enforced requisites: presented by staff, outside speakers, and graduate students who are currently in research in tectonics. May be repeated for credit. S/U grading.

248. 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, chemical composition, transport and associated processes, geothermometry, and geochronology. S/U or letter grading.

252. Seminar: Geochemistry. (4) Seminar, two hours; discussion, two hours. Phase equilibria under crustal conditions; chemical processes in ancient and modern oceans and sediments; geological, geochemical, and petrogenetic implications of these processes; sources and behavior of major and trace elements in the crust and mantle. 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, plutons, volcanoes, and consolidated or unconsolidated sediments. Modern concepts of oceanic basins; processes leading to segregation of continental-type rocks. S/U or letter grading.

256. Field Seminar. (2 to 6) Seminar, two hours; discussion, one hour; fieldwork, five to 20 days. Requisite: course 200C or Physics 210A. Physics of planetary interiors, and the seismology, geodynamics, and magnetic field generation of the Earth and other planets. S/U or letter grading.

259. Seminar: Paleontocytics. (4) Seminar, two hours; discussion, two hours. Requisite: course 244. Basin evolution and paleogeography, with emphasis on Phanerzoic 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 stratigraphy, geology of igneous and metamorphic petrology, volcanology, or other subdisciplines 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 topics include magnetic storms, magnetospheric substorms, ultralow frequency waves, and adiabatic particle motion in Earth’s radiation belts. S/U or letter grading.

262. Application of Remote Sensing in Field. (4) Fieldwork, five hours; laboratory, two hours. Requisite: 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 California desert for testing hypotheses during
week between Winter and Spring Quarters. Concurrently scheduled with course C162. S/U or letter grading.

M263A. Solar System Magnetohydrodynamics. (4) (Same as Atmospheric and Oceanic Sciences M260A.) Lecture, three hours. Requisite: Atmospheric and Oceanic Sciences 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 the wind and planetary magnetospheres and to solar wind/magnetosphere/onosphere coupling. S/U (for majors with consent of instructor after successful written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

264. Order of Magnitude Earth 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 key problem is tendency for rote memorization to take practice at talking through problems with others. One 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 key problem is tendency for rote memorization to take

265. Instrumentation, Data Processing, and Data Analysis in Space Physics. (4) Lecture, three hours. Principles, testing, and operations of magnetometers and other data processing devices, data processing, display, and archiving. Time-series analysis techniques, including filtering, Fourier series, eigenanalysis, and power spectra. S/U or letter grading.


CM273. Earth Process and Evolutionary History. (6) (Same as Ecological and Evolutionary Biology CM228.) Lecture, four hours; laboratory, three hours. Requisite: Chemistry 14A, 14B (or 20A, 20B), Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C (or 7A and introductory course in biology). Exploration of relationship between physical processes, such as tectonics and climate, and how they affect surface and impact biology of Earth. Study of 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 to understand geologic process of climate and ecology of Earth. Past climate change to examine expected future human-influenced climate. Consideration of major events in history of life on Earth. Data and methods from geology, genetics, and geochemistry are introduced in past events. This reveals how Earth processes shaped life and how life shaped Earth. Concurrently scheduled with course CM173, Letter grading.

C279. Search for Extraterrestrial Intelligence: Theory and Applications. (4) Lecture, two hours; laboratory, two hours. Enforced requisites: Mathematics 31B, Physics 1B. Required: course 71, Com- puter Science 31, Physics 110B, Program in Computing 19. 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 program, acquisition of telescopic data, development of algorithms to analyze data, and writing of report on results. Concurrently scheduled with course C279. S/U or letter grading.

282. Seminar: Geophysics. (4) Seminar, two hours; discussion, two hours. Seismology, geophysical prospecting, electromagnetic prospecting. Selected topics in Earth physics. Content varies from year to year. May be repeated for credit. 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 nebula, hydromagnetic processes, formation of planets and satellite systems. Content varies from year to year. May be repeated for credit. S/U grading.


289. Seminar: Fluid Dynamics. (2) Seminar, one to two hours. Problems of current interest in fluid dynamics, with emphasis on geophysical applications. May be repeated for credit. S/U grading.

293A-293B-293C. Space Physics Journal Club. (1–1–1) Seminar, one hour. Limited to graduate space science, and methods from geology, genetics, and geochemistry are introduced in past events. This reveals how Earth processes shaped life and how life shaped Earth. Concurrently scheduled with course C194. S/U grading.

295A-295B-295C. Current Research in Earth, Planetary, and Space Sciences. (1–1–1) Lecture, one hour. Limited to graduate Earth, planetary, and space sciences students. Seminars presented by outside speakers, staff, and/or graduate students describing current research. Written reports required. May be repeated for credit. S/U grading.

C296. Research Topics in Earth, Planetary, and Space Sciences. (1) Research group meeting, one to three hours. Designed for departmental students participating in research group. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. Concurrently scheduled with course C194. S/U grading.

297. Advanced Techniques in Geophysical Research. (2 to 4) Lecture, two to four hours. S/U grading.

298. Advanced Topics in Earth and Space Sciences. (2 to 4) Lecture, two to four hours. S/U or letter grading.

M370A. Integrated Science Instruction Methods. (4) (Same as Chemistry M370A and Physics 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 Physics M370B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisite: course M370A or Chemistry M370A or Physics 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 Apprentices 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 Earth, Planetary, and Space Sciences. (2) Seminar, one hour; discussion, two hours. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. Special emphasis on integration of technology in classroom. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: concurrent graduate assistant 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 and/or Research. (2 to 12) Tutorial, to be arranged. May be repeated. S/U or letter grading.

597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.

598. MS Research and Thesis Preparation. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.

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 allow students to prepare for a broad range of individual needs and career interests with a thorough grounding in the history and culture of the region.

Information on the undergraduate major in Asian Studies and minor in East Asian 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 Degree

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

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Los Angeles, CA 90095-7246

Ecology and Evolutionary Biology

310-825-1959, Graduate Office
Graduate e-mail
310-825-1680, Undergraduate Office
Undergraduate e-mail
Karen E. Sears, PhD, Chair

Faculty Roster

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 M. Narins, PhD
Peter N. Nonacs, PhD
Lawren Sack, PhD
Van M. Savage, PhD
Barnett A. Schlinger, PhD
Karen E. Sears, PhD
H. Bradley Shaffer, PhD
Thomas B. Smith, PhD
Victoria L. Sork, PhD
Blaire Van Valkenburgh, PhD (Donald R. Dickey Professor of Vertebrate Biology)
Robert K. Wayne, PhD

Professors Emeriti

Clifford F. Brunk, PhD
Joseph Cascaran, PhD
Martin L. Cody, PhD
Franz Engelmann, PhD
Arthur C. Gibson, PhD
Elma González, PhD
Malcolm S. Gordon, PhD
Patricia A. Gowaty, PhD
William M. Hamner, PhD
Henry A. Hesperindehe, PhD
Stephen P. Hubbell, PhD
Kenneth A. Nagy, PhD
Park S. Nobel, PhD
Philip W. Rundel, PhD
Richard W. Siegel, PhD
Charles E. Taylor, PhD
Henry J. Thompson, PhD
Richard R. Vance, PhD
Eduardo Zeiger, PhD
Cheryl Ann Zimmer, PhD
Richard K. Zimmer, PhD

Associate Professors

Nathan J.B. Kraft, PhD
Kirk E. Lohmueller, PhD
Noa Pinter-Wollman, PhD

Assistant Professors

Shane C. Campbell-Staton, PhD
Nandita R. Garud, PhD
Pamela J. Yeh, PhD
Felipe Zapata, PhD

Adjunct Professors

Jon E. Keeley, PhD
Barbara J. Natterson, MD

Adjunct Associate Professors

Seth D. Riley, PhD
Xiaoming Wang, PhD

Adjunct Assistant Professors

Christy A. Brigham, PhD
Brenda J. Larison, PhD
Jonathan D. Marcot, PhD
Debra M. Shier, PhD

Scope and Objectives

Organismic biology touches every aspect of modern life, and understanding how living organisms are adapted to their environments is the major challenge of the discipline. To meet this challenge, the Department of Ecology and Evolutionary Biology offers undergraduate and graduate instruction at all levels of biology—from regulatory and physiological processes within organisms through the natural ecology and behavior of living organisms and to the population and community dynamics of multiple species. All of these subject areas address practical problems facing the world today, and all influence human decisions on matters ranging from conservation of the environment to advancement of medical science.

The Bachelor of Science degrees combine essential background studies in mathematics, chemistry, and physics with a general introduction to all of the biological subjects, as well as advanced in-depth exposure to some of them. The Master of Science and PhD degrees provide opportunities for advanced, concentrated study. The Master of Science degree requires, in addition to specified coursework, completion of either a comprehensive examination or the performance of original research culminating in a thesis. The PhD degree requires independent and innovative research that ultimately results in a dissertation.

Undergraduate Study

Students may earn a Bachelor of Science degree in one of three different majors within the department: Biology (general biology); Ecology, Behavior, and Evolution; and Marine Biology. The majors build on similar lower-division introductory courses and differ primarily in the upper-division requirements. 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 complete the following courses:

1. Chemistry and Biochemistry 15A

2. At least 8 units (two courses) from Ecology and Evolutionary Biology 100, 109, 116, 120 or 185, 121, 184. Students with credit for course 120 cannot also take course 185

3. At least 8 laboratory units (two courses) from Ecology and Evolutionary Biology 100L, 101, 103, 105, 109L, 110, 111, 112, 113AL, 114A, 115, 117, 128, 136, 144, 146L, 170, CM173, C174, 181. For courses IOOL, 109L, 131AL, and 162L to be applied, the corresponding lecture course must be completed. Four units from the Field Biology Quarter or Marine Biology Quarter may be applied, and one course from Microbiology, Immunology, and Molecular Genetics 103AL or Physiological Science 166 may be included. Students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166

4. At least 8 units (two courses) from Ecology and Evolutionary Biology 100, 101, 103, 105, 107, 109, 110, 111, 112, 113A, 113AL, 114A, 115, 116, 117, C119A, C119B, 120, 121, 122, 126, M127 (or Environment M127 or Geography M127), 128, 129, 130, M131 (or Geography M131), 133, 135, 136, 137, M139 (or Atmospheric and Oceanic Sciences M105), 142, 144, M145 (or Earth, Planetary, and Space Sciences M118), 151A, 152, 153, 154, 155, 156, M157, 160, 161, 162, 170, C172, CM173 (or Earth, Planetary, and Space Sciences CM173), C174, 175, 176, M178 (or Bioengineering CM186 or Computational and Systems Biology M186 or Computer Science C186), C179, 180A (counts as one-half course), 180B, 181, 183, 184, 185, 186, 187, 198A and 198B (must take both), 199 (4 units), Life Sciences 107 (students with credit for Life Sciences 4 cannot take Life Sciences 107), Molecular, Cell, and Developmental Biology 138, 165A. Eight units from the Field Biology Quarter or Marine Biology Quarter may be included, and any departmental course not applied under item 2 or 3 above may be applied in this category. Students with credit for Ecology and Evolutionary Biology 120 cannot also take course 185

5. At least 12 units (three courses) from Anthropology 120 and/or one course from 124P, 124Q, 124S, or 128P, M128S (or Society and Genetics M142), 129 (selected topics approved by Undergraduate Advising Office), Atmospheric and Oceanic Sciences M105 (or Ecology and Evolutionary Biology M139) or one course from 102, 103, 104, 130, or 145, Biostatistics 100B, chemistry (except Chemistry and Biochemistry 188SA through 199; Chemistry and Biochemistry 153L is strongly recommended), Earth, Planetary, and Space Sciences 116, ecology and evolutionary biology (except Ecology and Evolutionary Biology 188SA through 196), Environmental Health Sciences 100, Geography 112 and/or one course from 108 or 111, Human Genetics CM124 (same as Computer Science CM124), C144 or one course from Biomedical Research 100HA, 100HB, or 100HC, Life Sciences 107 (students with credit for Life Sciences 4 cannot take Life Sciences 107), M174 (or Psychology M174), mathematics (except Mathematics 105A, 105B, 105C, 106, 188SA through 199), microbiology, immunology, and molecular genetics (except Microbiology, Immunology, and Molecular Genetics 188SA through 199), molecular, cell, and development biology (except Molecular, Cell, and Developmental Biology 190A through 199D), Neurosciences M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180A or Psychology M117A), M101B (or Molecular, Cell, and Developmental Biology M175B or Physiological Science M180B or Psychology M117B), M101C (or Molecular, Cell, and Developmental Biology M175C or Physiological Science M180C or Psychology M117C), 102, M139 (or Molecular, Cell, and Developmental Biology M181 or Physiological Science M181 or Psychiatry M181 or Psychology M117J), physics (except Physics 188SA through 199), physiological science (except Physiological Science 188SA through 199), Psychology 115, 133B, Society and Genetics M142 (also Anthropology M128S). Any remaining units from the Field Biology Quarter or Marine Biology Quarter not applied in item 3 or 4 may be applied and any course not applied under item 2, 3, or 4 above may be included in this category

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.

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. 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.

Ecology, Behavior, and Evolution BS

Capstone Major

The Ecology, Behavior, and Evolution major is appropriate for students preparing for graduate study in ecology, behavior, and evolution or for employment in areas such as environmental biology, animal behavior, conservation, teaching, museum work, and governmental positions dealing with environmental issues of wide importance and impact. A strong field component involving study in terrestrial and marine locales such as coastal, desert, and mountain environments in California and the Southwest and in the Neotropics is required.

Learning Outcomes

The Ecology, Behavior, and Evolution 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...
Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 20A, 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 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 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. At least 4 morphology and systematics units (one course) from Ecology and Evolutionary Biology 120, 121, 122, 124, and 125, or 120, 121, 122, 124, 125, 130, 131, 132, 133, 135, 136, 137, 142, 144, 151A, 152, 153, 154, 155, 157, 161, 162, 170M, or (Earth, Planetary, and Space Sciences 170M), 171, 175, 178 (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 1 cannot take Life Sciences 107). Students with credit for Ecology and Evolutionary Biology 120 cannot also take course 185.

2. At least 8 units from Anthropology 128P, chemistry (except Chemistry and Biochemistry 188SA through 199; Chemistry and Biochemistry 133A and 133L 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 193A through 199), Molecular, Cell, and Developmental Biology 172, physics (except Physics 188SA through 199); recommended: text-oriented courses in ecological, behavioral, and evolutionary processes such as Ecology and Evolutionary Biology 111, 112, 113A, 133AL, 144A, 145.

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, graduating seniors, who 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 physiology of 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 fundaments 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 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 116, C119A, C119B, 120, 121, 122, C126, 128, 129, 130, 133, 135, 136, 137, 142, 144, 151A, 152, 153, 154, 155, 157, 161, 162, C173 (or Earth, Planetary, and Space Sciences CM173), C174, 175, 178 (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 advisor)

5. At least 8 units from Anthropology 128P, chemistry (except Chemistry and Biochemistry 188SA through 199; Chemistry and Biochemistry 133A and 133L 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 193A through 199), Molecular, Cell, and Developmental Biology 172, physics (except Physics 188SA through 199); recommended: text-oriented courses in ecological, behavioral, and evolutionary processes such as Ecology and Evolutionary Biology 111, 112, 113A, 133AL, 144A, 145.

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, graduating seniors, who 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.
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), 111, 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 128, Ecology and Evolutionary Biology 100, 116, 139A, 139B, 122, 126, 128, 129, 131 (or Geography M117), 133, 136, 137, 142, 151A, 152, 154, 155, M157, 161, 162, 170, 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, 135, 144, CM173 (or Earth, Planetary, and Space Sciences CM173), CM174, 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, 153A, Earth, Planetary, and Space Sciences 100, 116, 119, C141, 153, Ecology and Evolutionary Biology M131 (or Geography M117), 153, 198B, 199, Geography 100, M106 (or Atmospheric and Oceanic Sciences M106), 123, 130, 169, Mechanical and Aerospace Engineering 103, or 150A, Molecular, Cell, and Developmental Biology 172

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.

For majors in Biology, Marine Biology, and Marine Biology 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, 124A, 124B, 125, C126, 132, 134B, and 151B. 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.

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.

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 by e-mail 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 requisites 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 (28 units minimum): Ecology and Evolutionary Biology 100, 116 (or Environment 121), and four to six courses (19 units minimum) from 100L, 101, 103, 105, 109, 109L, 111, 112, 113A, 113AL, 114A, 114B, C119A, C119B, 122, M127 (or Environment M127 or Geography M127), C29, M131 (or Geography M117), 152, 153A, 153B, 154, 155, 156, 161, 162, 162L, 174, 176, 186A, 186B, Geography 102, 104, M106 (or Atmospheric and Oceanic Sciences M106), M107 (or Environment M114), 108, M109, 111, 113, M127 (or Environment M130). 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

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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 by e-mail 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 requisites to some of the upper-division courses accepted for the minor.

Required Lower-Division Course (5 units): Life Sciences 1 or 7B.


Required Research Project or Internship (4 units minimum): Ecology and Evolutionary Biology 198A and 198B or 199 or a suitable research internship from another department, and must be taken for letter grades.

Participation in the Annual Biology Research Symposium (Poster Session) sponsored by the department in spring quarter is highly recommended.

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.

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 (MS), Candidate in Philosophy (PhD) degrees in Biology.

Ecology and Evolutionary Biology

Lower-Division Courses

10. Plants and their Utilization. (4) Lecture, three hours; demonstration, one hour. Designed for nonmajors. Origin 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 classes. 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. Evolutionary crisis to role of historical processes. P/NP or letter grading.

17. Evolution for Everyone. (3) Lecture, three hours; discussion, two hours. Exploration in detail of Darwinian natural selection, with emphasis on evidence and implications for modern problems and societies face, including antibiotic resistance, insect resistance to pesticides, and coevolution of pollinators with crop plants. Nature of science in context of questions about ongoing real-time Darwinian processes. Letter grading.

18. Why Ecology Matters: Science Behind Environmental Issues. (5) Lecture, three hours; laboratory, two hours. Basic ecological concepts, scientific method, and ecological basis for local and global environmental issues. Major challenges to be faced in this century, including need to develop 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 growing green economy and to help forge solutions to current and future environmental crises that threaten natural resource base. P/NP or letter grading.

21. Field Biology. (4) Lecture, three hours; discussion, two hours, or 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; field trips, three 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 and their effects on organisms. P/NP or letter grading.

87. California’s DNA: Field Course. (1) Lecture, one hour; fieldwork, four hours (every other week). Limited to freshmen. Students learn DNA science and conservation issues through UCLA’s DNA science program and do fieldwork to sample soil and sediments in California. Familiarization 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. 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. 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.

95. Lower-Division Internship in Biology. (4) Tutorial/fieldwork, three hours per week per unit. Internship course for lower-division students to be supervised by Center for Community Learning, fieldwork site, and faculty advisor. Consult Undergraduate Office for more information. May be repeated twice. Individual contract with supervising faculty member required. P/NP grading.

96. Communication Science: Bringing Complex Concepts to Life. (2) Seminar, three hours. Limited to Ecology and Evolutionary Biology Department majors. Development of tools for research, integrating 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) Formerly numbered 97X.) Seminar, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of lectures, discussions, and presentations to enhance student success in sciences by developing critical academic 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. P/NP grading.

97XC. AAP Freshman Seminar: Succeeding in Science Majors and Careers. (1) Seminar, one hour. Limited to students in the 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 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. Entry-level research for lower-division students under guidance of faculty mentor. Students must carry out supervised research 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

100. Introduction to Ecology and Behavior. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Not open for credit to students with credit for C110 or C118. Introduction to methods and topics in ecology and behavior. Growth and regulation of populations, organization of communities, biogeography, species interactions, evolution, and behavior of animals. 

101. Marine Botany. (4) Lecture, four hours; laboratory, six hours; three to four field trips. Requisite: Life Sciences 1 or 7B. Introduction to biology and ecology of marine plants, including algae, sea grasses, and mangroves, with focus on function and form of marine plants and their ecological role in different marine habitats and ecosystems. Letter grading.


103. Plant Diversity and Evolution. (5) Lecture, three hours; laboratory, three hours; field trip. Requisites: Life Sciences 1 and 4, or 7A and 7B. Introduction to green plant tree of life, with emphasis on using phylogenetic perspective to examine major transitions in plant evolution and recent diversification of land plants, vascular plants, seed plants, and currently ecologically dominant flowering plants. Introduction to phylogenetics, providing overview of theory and methodology to reconstruct evolutionary relationships. Trees to study organismal evolution. Exploration of 700 million years of plant evolution, with emphasis on morphological, functional, ecological, and biogeographical perspectives. Letter grading.

105. Biology of Invertebrates. (6) Lecture, three hours; laboratory/field trips, six hours. Requisite: Life Sciences 1 or 7B. Introduction to systematic classification, natural history, morphology, and physiology of invertebrates. P/NP or letter grading.

106. Experimental Marine Invertebrate Biology. (4 or 6) Lecture, two hours; laboratory, 12 hours. Requisites: course 105, Physiological Science 168 (may be taken concurrently). Offered either as 6-unit quarter-long course or as 4-unit Marine Biology Quarter course. Advanced course of natural history, physiology, biochemistry of invertebrates, with emphasis on independent laboratory and field investigations. P/NP or letter grading.

107. Evolution, Development, and Function of Invertebrate Animals. (6) Lecture, three hours; laboratory, three hours; three weekend field trips. Requisites: course 105, Introduction to Systematics, Evolution, and Behavior of Marine Invertebrates. Advanced invertebrate biology course exploring evolutionary relationship of animal groups and evolution of marine species, comparative development and developmental genetics of invertebrate form, and function and form as they relate to marine invertebrates. Letter grading.

108. Biodiversity in Age of Humans. (4) Lecture, two and one half hours; discussion, one hour; field trip, six to ten hours, student participation and enrollment in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

109. Introduction to Marine Science. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Strongly recommended for prospective Marine Biology Quarter students. Introduction to physical and biological environment of planet earth oceans. Designed to be integrative, with focus on geological evolution of seas, physical and chemical properties of water, and how these abiotic processes shape ecology and evolution of marine organisms and environments. Letter grading.

109L. Introduction to Marine Science Laboratory. (4) Laboratory, three hours; four field trips. Requisites: course 109 (may be taken concurrently), Life Sciences 1 or 7B. Introduction to marine environments and methods used to study them. Exploration of variety of concepts in marine science, ranging from oceanography to chemistry, production, and productivity, and marine biodiversity, with focus on experimental design and scientific writing. 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.

110. Marine Ecology. (4) Lecture, six hours; three to four field trips. Requisites: Life Sciences 1 or 7B. Introduction to marine systems, with special focus on California species. Field trips to observe living species in field, including one extended three-day trip. Letter grading.

113B. Field Herpetology. (8) Requisite: Life Sciences 1 or 7B. Recommended: course 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, ecology, and behavior of reptiles and amphibians in their natural habitat. Students carry out supervised research projects, then write up and orally present their results in seminar fashion. Letter grading.

114A. Ornithology. (5) Lecture, three hours; laboratory, three hours. Requisite: Life Sciences 1 or 7B. Topics in mammalian biology, including evolution, ecology, behavior, functional morphology, systematics, physiology, and biogeography. 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. Biology, particularly ecology and behavior, of birds in their natural habitat. Letter grading.

115. Mammalogy. (5) Lecture, three hours; laboratory, three hours. Requisite: Life Sciences 1 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, 111. Letter grading. Open to students with credit for Environment 121. Study of ecological and evolutionary principles as they apply to preservation of genetic, species, and ecosystem diversity; 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. (8) 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 only as part of Field Biology Quarter. Field-oriented introduction to functional aspects of how vascular plants adapt themselves to their abiotic and biotic environments using community, population, and ecophysiological levels of integration. Letter grading.

C118A. Mathematical and Computational Modeling of Biological Systems. (4) Lecture, 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 data. Examples from ecological and principles applicable throughout life and physical sciences. Concurrently scheduled with course C219A. P/NP or letter grading.
C119B, Modelling in Ecological Research. (4) Lecture, two hours; discussion, two hours. Requisite: course C119A. Advanced techniques in mathematical and computational modeling of ecological dynamics and other population dynamic problems. Independent research projects by students. Projects may 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 C219B. P/NP or letter grading.

120. Evolution. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 1, 2, 3, 4, and 23L, or Mathematics 3A and 3B (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 population biology in departments of biology and environmental science. Introduction to major 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. Not open to students with credit for course 182. Designed for departmental majors specializing in environmental and population biology. Introduction to population and community ecology, with emphasis on growth and distributions of populations, interactions between species, and structure, dynamics, and functions of communities and ecosystems. P/NP or letter grading.

124A-124B. 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 project required. Letter grading. 124A. In residence at research station located outside continental U.S. 123B. In residence at research station located within U.S., including Alaska and Hawaii.

124A-124B. Field Ecology. (4 or 8 each) Lecture, five hours; laboratory, 15 hours. Recommended requisites: course 100, Life Sciences 1 or 7B. Recommended. Offered as part of Field Biology Quarter. Field and laboratory research in ecology; collection, analysis, and interpretation 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. 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. Tropical Animal Communication. (4 or 8) Lecture, three hours; discussion, two hours. Requisites: courses 100 or 101, or 129. Offered as either an eight-unit quarter-long course or as 8-unit Field Biology Quarter course. Animal communication behavior, 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 in animal communication. Letter grading.

126. Behavioral Ecology. (4 or 8) Lecture, three hours; discussion, two hours. Requisites: courses 100, Life Sciences 1 or 7B, Mathematics 3C or 32A or Life Sciences 30B. Recommended: course 129. Offered either as an eight-unit quarter-long course or as 8-unit Field Biology Quarter course. Evolutionary perspective of behavioral ecology, with extended consideration of selfish actions, conflict with genomes, natural selection and coevolution, kin selection and diversity in group functioning and cooperation, social learning, game theory and alternative life histories, and human behavioral ecology. Eight-unit course covers several major areas in animal behavior more broadly, including foraging, sexual selection and predator-prey interactions in five intensive weeks. Two-week field trip where students do individual projects. Concurrently scheduled with course C242. Letter grading.

M127. Soils and Environment. (4) Same as Environment M127 and Geography M127L.) Lecture, three hours; discussion, one hour. Requisites: course M127 and Geography M127L.) Lecture, three hours; discussion, one hour. Requisites: course 110 or Earth Sciences 4 or 7A. Two-week field trip where students do individual projects. Concurrently scheduled with course C242. Letter grading.

M127L. Soils and Environment: Field. (1) Same as Environment M127L and Geography M127LL.) Laboratory, one hour; field excursions. Corequisite: course M127L. Investigations and demonstrations supporting material in course M127L, including excavating, de- scribing, 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, five hours; discussion, two hours. Requisites: Life Sciences 4 or 7A, or 8BL or 5BL 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, one hour. Requisites: Life Sciences 1 or 7B. Recommended. courses 120, 125, Concepts, principles, and methods of comparative biology as they apply to inference of evolutionary relationships among organisms. Principles and application of biological nomenclature. Letter grading.

M131. Ecosystem Ecology. (4) Same as Geography M117.) Lecture, three hours; field trips. Requisite: Geography 1 or Life Sciences 2 or 7C. Designed for junior/senior majors. Dynamics of ecosystems, with focus on understanding links between ecosystem structure and function. Emphasis on energy and water balances, nutrient cycling, plant-soil interactions, and energy transfer in primary production, biogeochemical cycling, and human disturbance to ecosystems. P/NP or letter grading.

132. Field Behavioral Ecology. (8) Lecture, four hours; laboratory/field trip, 10 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 individual and small group field projects during extended field trip. Letter grading.

133. Elements of Theoretical and Computational Biology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1 or 7B. Offered as part of Atmospheric and Oceanic Sciences M105. Lecture, four hours; laboratory, two hours. Requisites: Life Sciences 1 or 7B. Offered as part of Atmo- 

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array of communities—plant, animal, microbial, terres-
trial, and marine—to give appreciation of extraordinary
natural history and diversity of life on Earth as it exists
in its living ecological context. Discussion of how eco-
logical communities are responding now and will re-
spond in future to anticipated global change, and con-
servation implications of these changes. Letter grading.

156. Biology and Social Justice. (4) Lecture, four hours.
Consideration of intersection of biological dis-
covery with human society to understand how and
what scientific advances have both promoted and mitigated
social inequality. Letter grading.

157. Biology of Superheroes: Exploring Limits of Form and Function (Gen-
etics M157.*) Lecture, four hours; discussion, one hour.
Requisites: 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 delve into basic scientific theory and principles. Topics covered include evolution, genetics, physiology, bio-
mechanics, brain-machine interfacing, and artificial in-
telligence among others. Students synthesize primary
literature on diverse subjects presented. Letter grading.

160. Introduction to Plant Biology. (4) Lecture, three hours;
discussion, one hour. Not open for credit to stu-
dents with credit for course 162. Introduction to as-
ppects of plant biology. Topics include plant body, re-
production, plant diversity, gene expression, and basic
plant function. Letter grading.

161. Plant Ecology. (4) Lecture, two and one half hours;
discussion, one hour. Requisite: Life Sciences 1 or 7B.
Introduction to ecology of terrestrial plants, covering individuals, populations, communities, and
global processes. Topics include plant form and func-
tion, seed dormancy and population dynamics, life
histories, disturbance and succession, community structure and dynamics, and global change. P/NP or letter grading.

162. Plant Physiology. (4) Lecture, three hours; dis-
cussion, one hour. Requisites: Life Sciences 1, 2, 3, and
23L, or 7A, 7B, 7C, and 23L. Basic aspects of plant function, including photosynthesis, biochemistry,
and physiological aspects of photosynthesis. Carbon and nitrogen metabolism and its regulation; organellar interactions and compartmentation. Water relations, ion transport, plant function, and plant re-
sponses to stress. Letter grading.

162L. Plant Physiology and Ecophysiology Labora-
tory. (4) Laboratory, 12 hours. Requisites: courses 152
or 162 or 165 may be taken concurrently, Life Sciences 1, 2, 3,
and 23L, or 7A, 7B, and 23L. Focus on whole-
plant physiology and ecophysiology from biochemical and molecular processes to whole-plant function and field performance to gain understanding and appreci-
aton of plant function in processes of growth, development, and reproduction. Exercises provide training in approaches and instrumentation such that students become familiar with physiological techniques to answer questions on plant
function, including use of programs such as
FunAnatomy (plant anatomy) and FastPlant (growing ex-
periment). To apply this course to the Biology upper-
division major requirement, the corresponding lecture course must be completed with a
passing grade. Letter grading.

163. Biology of Marine Tetrapods. (4) Lecture, five
hours; laboratory, six hours. Requisites: Chemistry
14A, 14B, and 14BL, or 20A, 20B, 20L, and
30AL, Life Sciences 1, 3, 23L, or 7A, 7B, 7C, and 23L.
Highly recommended: course 111. Five-week inten-
sive course offered only as part of Marine Biology
Quarter. Survey of higher vertebrates living in marine
habitats, including estuarine amphibians, marine rep-
tiles, seabirds, and marine mammals. Laboratory em-
phasis is on critical appraisal of experimental approaches to study of morphology, systematics, ecology, and be-
vavior 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, 15 hours. Requisite: Life Sciences 1
Recommended: Mathematics 3A, 3B, 3C. Five-week
patterns of biological diversity and how phylogenetic comparative methods are used to test macroevolutionary hypotheses. Currently scheduled with course C230. Letter grading.

175. Evolutionary Dynamics of Sex. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Fit. Flow dynamics of reproduction when 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 the evolution of sexual conflict, including Fisherian sexual selection, evolution of manipulation through deceptive communication, and theory of Darwinian sexual conflict. Letter grading.


C177. Practical Computing for Evolutionary Biologists and Ecologists. (4) Lecture, three hours; laboratory, two hours. Requisite: Life Sciences 1 or 7B. Introduction to fundamental skills needed for manipulation, analysis, and visualization of large data sets. Basic programming and scripting in Python as well as working in shell, regular expressions, and related topics. Concurrently scheduled with course C234. Letter grading.

M178. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) Same as Bioengineering CM186, Computational and Systems Biology M186, and Computer Science CM186.) 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, predictive, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling methods applied to life sciences problems at molecular, cellular (biochemical 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 tasks such as numerical simula- tion algorithms, with modeling software exercises in class and PC laboratory assignments. Letter grading.

C179. Communicating Science to Informal Audiences. (3) Lecture, three hours; discussion, one hour; laboratory or fieldwork, two hours. Requisite: one course from course 25, Atmospheric and Oceanic Sciences M10, Chemistry 2, 14A, 20A, Earth, Planetary, and Space Sciences 1, 15, Environment M10, Life Sciences 1, or 7B. Designed for juniors/seniors. Combined instruction in inquiry-based teaching methods and learning pedagogy, with six weeks of supervised teaching experience at Santa Monica Pier Aquarium. Students learning scientific knowledge and edge and receiving 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 is especially critical when considering that Americans are expected to comprehend more and 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) Three hours (course 180A) and four hours (course 180B). Investigations and discussions of current social-ly important issues involving substantial bio- logical considerations, either or both as background material to finalize course syllabus. Individual contract with faculty mentor required. May be repeated once for credit with instructor change. Letter grading.

181. Parasitology. (6) Lecture, three hours; laboratory, six hours. Requisites: Life Sciences 1, 3, and 23L, or 7A, 7B, and 23L. Introduction to principles, biology, and evolution of the parasitic lines, including the impact of parasitic diseases on public health, focusing on host-parasite relationships and their impact on human health and disease. Letter grading.

182. Marine Parasitology. (4) Lecture, five hours; laboratory, 15 hours. Requisite: Life Sciences 1 or 7B. Recommended: courses 112, 181. Five-week intensive course offered only as part of Marine Biology Quarter. Introduction to natural history and ecology of host-parasite relationships of intertidal and deep-sea invertebrates and fish. Laboratory includes collection and preparation techniques. Offered off-campus at marine science center. Letter grading.

183. Finding Ecological Solutions to Environmental Problems. (4) Seminar, four hours. Students learn to apply ecological science to solving of diverse and interdisciplinary environmental problems, in intimate and participatory environment. Letter grading.

194. Evolution, Development, and Disease. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 7B. Recommended requisite: course 103, 110, 120, M157, C174, or 185. Exploration of developmental mechanisms underlying evolution of animal design, including development of these mechanisms. Exploration of what happens to animal form, including that of humans, when these development mechanisms are disrupted by environmental and genetic factors. Letter grading.

185. Evolutionary Medicine. (4) Lecture, two and one half hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Not open for credit to students with credit for course 120. Designed for departmental majors specializing in environmental and population biology and in medicine. Introduction to mechanics and processes of evolution, with emphasis on natural se- lection, evolutionary biology, population dynam- ics, and patterns of adaptation. 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 mental illnesses are discussed. Under- standing of application of evolutionary thought to is- sues faced by physicians, veterinarians, psychologists, and other healthcare providers. Develop- ment of awareness of how evolutionary 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. Requisite: Life Sciences 1, 2, 3, 4, 23L. Investi- gation, discussion, and study of current important is- sues involving substantial biological considerations 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. (2) Seminar, two hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP 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- ulty mentor while facilitating USIE 88S course. Indi- vidual contract with faculty mentor required. May not be repeated. 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. May be repeated for a maximum of 4 units. Individual honors contract re- quired. 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 readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Ecology and Evolutionary Biology. (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. P/NP grading.

191. Variable Topics Research Seminars: Ecology and Evolutionary Biology. (4) Seminar, three hours. Seminars on current research in ecology and evolution, evolutionary biology. Consult Schedule of Classes for topics and instructors. If content is approved in ad- vance by Undergraduate Advising Office, undergrad- uate departmental majors may petition to use course to satisfy or partially satisfy elective requirement. May be repeated for credit with consent of instructor. P/NP or letter grading.

192A-192B. Undergraduate Assistant in Ecology and Evolutionary Biology. (4-2) Seminar, 12 hours (course 192A) and six hours (course 192B). Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students in assisting with current research projects. Further exploration of mate- rial and development of innovative pro- grams with guidance of faculty members in small course settings. Consult Undergraduate Advising Of- fice for further information and for course requirements for departmental majors. May be repeated for credit. P/NP grading.

193. Journal Club Seminars: Ecology and Evolutionary Biology. (1) Seminar, two hours. Enforced corequisite: one course from 198A through 198D or 199. Limited to undergraduate students. 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 or Internship Seminars: Access to Research Careers. (2) Seminar, six hours. Designed for juniors/seniors in research traineeships or those who have strong commitment to pursue graduate studies in molecular, biochemical, physiolog- ical, or biomedical fields. Weekly presentation and dis- cussion of paper selected from current literature. No more than 4 units counted toward departmental majors. May be repeated for credit. Letter grading.

194B. Research Group or Internship Seminars: Ecology and Evolutionary Biology. (1) Seminar, two hours. Designed for juniors/seniors in research traineeships or those who have strong commitment to pursue graduate studies in molecular, biochemical, physiolog- ical, or biomedical fields. Weekly presentation and dis- cussion of paper selected from current literature. No more than 4 units counted toward departmental majors. May be repeated for credit. Letter grading.
Graduate Courses

M200A. Evolutionary Biology. (4) Same as Earth, Planetary, and Space Sciences M216.) Lecture, two hours; discussion, two hours. Current concepts in evolution, with emphasis on population genetics and molecular evolution, including microevolution, speciation and species concepts, analytical biology, 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. Principles and current topics in ecology. Topics may include biogeography, disturbance ecology, chemical 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 behavioral ecology. Topics may include introduction to field research, population models, and the behavior of different species. S/U or letter grading.

201. Introduction to R for Ecology and Evolutionary Biology. (4) Lecture, six hours. Intended for beginning graduate students. Course covers the basics of R, including data structures and functions, and focuses on an application of R to evolutionary biology. S/U or letter grading.

C202. Advanced Statistics in Ecology and Evolutionary Biology. (4) Lecture, two hours; laboratory, two hours. Overview of and application of advanced statistical methods that go beyond linear models and mean comparison, including bootstrapping, permutation tests, and regression. Students will answer questions using R, and network analysis. At course end students should be able to explain which statistical approaches are appropriate for different types of research questions and critical evaluation of statistical analysis conducted in R. Concurrently scheduled with course C117A. S/U or letter grading.


204. Advanced Biology of Algae. (4) Lecture, four hours; discussion, one hour. Consideration of current research in experimental and theoretical biology. Topics include discussion of appropriate aspects of chemical and physical oceanography and limnology; algal physiology; biochemistry; physiological ecology; and algae processes in ocean and freshwater habitats. S/U or letter grading.

205. Marine Invertebrate Biology. (4) Lecture, two hours; laboratory, eight hours. Functional morphology, life histories, and biogeography of representative members of all major and most minor taxa; emphasis on living animals and their 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.

207. Advanced Fish 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 and functional adaptation. Independent project may be required. May be repeated for credit. S/U or letter grading.

209. Behavior of Arthropods. (4) Lecture, three hours; discussion, two hours. Advanced study of topics in behavior of terrestrial arthropods, including communication, feeding, reproductive, and social behavior. Emphasis on both mechanistic and adaptive approaches to 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, sociability), 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, population demography, and component species; associated oceanography and geology. Given off campus at marine science center. S/U or letter grading.

218. Oceanography. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Topics in oceanography, including physical oceanography, biogeography, and ecology, and dynamics of pelagic and benthic associations; physical-chemical properties of seawater and marine substrates and their biological significance; qualitative and quantitative methods of oceanography. Given off campus at marine science center. S/U or letter grading.

219A. Mathematical and Computational Modeling in Ecology. (4) Lecture, 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 data. Examples from ecology but techniques and principles applicable throughout life and physical sciences. Concurrently scheduled with course C119A. S/U or letter grading.

C219B. Modeling in Ecological Research. (4) Lecture, two hours; discussion, two hours. Requisite: course C219A. Advanced techniques in mathematical and computational modeling, physiology, population 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.


M226. Global Health Measures for Biological Emergencies. (4) Same as Earth, Planetary, and Space Sciences CM273.) Lecture, four hours. Requisite: Epidemiology 220. Mitigation of bioterrorism falls outside traditional public health programs and public health education. Because of complexity 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. 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 and systems. Emphasis on technical, chemical, and biological processes and how they interact with the environments. Consideration of major events in history of life on Earth. Data and methods from geology, genetics, and geochemistry are integrated to reconstruct past events. This reveals how Earth processes shaped life and how life shaped Earth. Concurrently scheduled with course CM173. Letter grading.

C230. Comparative Biology and Macromolecules. (4) Lecture, three hours; discussion, three hours. Requisite: Life Sciences 1 or 7B. Recommended: one introductory statistics course. Modern comparative biology provides framework for studying broad questions in evolution—How do bodies shapes evolve? What are the 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 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 C174. S/U or letter grading.

M231. Molecular Evolution. (4) Same as Earth, Planetary, and Space Sciences M217.) Lecture, two hours; discussion, two hours. Series of advanced topics in molecular evolution, with emphasis on molecular phylogenetics. Topics may include nature of genome, neutral evolution, molecular clocks, concerted evolution, molecular systematics, statistical tests, and phylogenetic algorithms. Entry-level course open to all year to year. May be repeated for credit. S/U or letter grading.

232. Advanced Ecology. (4) Lecture, three hours; discussion, one hour; laboratory, three hours. Requisite: course 122. Concepts and topics in ecology, evolutionary or behavioral biology, or theoretical ecology. Topics vary from year to year and may include island biology, population genetics, community interactions, conservation biology, and environmental issues. S/U or letter grading.
biogeography, tropical biology, biodiversity, modeling in ecology, habitat selection, community structure and organization, and ecology and evolution of reproductive rates. May be repeated for credit. S/U or letter grading.

C233. Under-A/La Kretz Workshop in Conservation Geometrics. (2) Lecture, two hours; discussion, one hour; laboratory, two hours. Five-day field experience at La Kretz Center Field Station and Stunt Ranch in Santa Monica Mountains. Conservation biology and genetics have had a dynamic and intimate relationship and constitute one key application of evolutionary analysis to real-world biological problems. Impacts of population genetics, phylogenetics, and phylogeography have been particularly striking for conservation biology and have helped solve some of most pressing problems in biological conservation. Annual workshop to provide training environment for small group of motivated graduate students to explore how conservation problems can best be addressed with genomic-level data. Hands-on experience on efficient collection, trouble-shooting, and analysis of large datasets for conservation-relevant problems. Active participation from members of several U.S. government agencies at forefront of endangered species protection and management, providing forum for exploring relevant aspects of conservation genomics to managers. S/U grading.

C234. Practical Computing for Evolutionary Biologists and Ecologists. (4) Lecture, three hours; laboratory, two hours. Basic principles of population, dealing with genetic structure of natural populations and mechanisms of evolution. Equilibrium conditions and forces altering gene frequencies, polygenic inheritance, molecular evolution, and methods of quantitative genetics. Concurrently scheduled with course C177. Letter grading.

C235. Population Genetics. (4) (Formerly titled C235.) Lecture, three hours; discussion, one hour. Basic principles of population, dealing with genetic structure of natural populations and mechanisms of evolution. Equilibrium conditions and forces altering gene frequencies, polygenic inheritance, molecular evolution, and methods of quantitative genetics. Concurrently scheduled with course C135, S/U or letter grading.


C237. Communicating Science to Informal Audiences. (3) Seminar, two hours; discussion, one hour; laboratory or fieldwork, two hours. Requires: one course from course 25, Atmospheric and Oceanic Sciences M10, Chemistry 2, 14A, 20A, Earth, Planetary, and Space Sciences 101, Life Sciences 1 or 7B. Introduction to fundamental skills needed for manipulation, analysis, and visualization of large data sets. Basic programming and scripting in Python as well as working in shell, regular expressions, and related topics. Concurrently scheduled with course C177. Letter grading.

C238. Ocean Biogeochemical Dynamics and Climate. (4) (Same as Atmospheric and Oceanic Sciences M235.) Lecture, three hours. Interaction of ocean 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. Anthropic perturbations of global carbon cycle 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 and land on and in ocean. S/U or letter grading.

C240. Physiology of Marine Animals. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Lecture and laboratory studies on cellular, tissues, organs, regulatory biology; metabolic characteristics of cells, energy transformations. Given off campus at marine science center. S/U or letter grading.

C242. Behavioral Ecology. (4) Lecture, three hours; discussion, two hours. Requires: course 100, Life Sciences 1 or 7B, Mathematics 3C or 32A or Life Sciences 30B. Recommended: course 129. Evolutionary perspective of behavior, with emphasis on evolutionary consideration of selfish DNA, conflict with genomes, natural selection and coevolution, kin selection and diversity in group functioning and cooperation, social learning, group behavior, and human behavioral ecology. Concurrently scheduled with course C126. Letter grading.

C243. Animal Communication. (4) Lecture, three hours; discussion, one hour. Requires: Mathematics 3C or 32A, and Biological Sciences 100B, or 100B C1 or C1B. Physical properties of animal signals and physiological mechanisms underlying their generation and reception. Lectures treat signal analysis, signal transmission, and perception of signals in light of constraints placed on each sensory modality. Examples of communication systems using visual, auditory, chemical, electrical, and magnetic cues, with emphasis on biological adaptations for signal detection, and species-specific information. S/U or letter grading.

C244. Advanced Insect Physiology. (4) Lecture, two hours; laboratory, five hours. Detailed discussion of current problems in insect physiology, with advanced laboratory, S/U or letter grading.

C247. Advanced Plant Biology. (4) Lecture, three hours; discussion, two hours. Requires: course 162 or Molecular, Cell, and Developmental Biology C141. Introduction to fundamental skills of plant cell biology. Designed to expose first-year graduate students to topics of current interest in plant biology. Subjects include plant genetics, growth and development, organ-structure development, and function, and plant-specific metabolic processes (photosynthesis, nitrogen fixation, metabolism of small molecules). S/U or letter grading.

C250. Professional Skills for Biological Research. (2 to 3) Seminar, two hours. Preparation, writing, and submission of research proposals. Collection and maintenance of field and laboratory data, preparation of scientific presentations, review of literature, and publishing strategies. Field trip offered during some years for 1 extra unit. S/U or letter grading.

C251. Seminar: Systematics. (2) Seminar, two to four hours. Current topics in systematic biology, including methods development and specific applications in learning of phylogenies and their use and applications. S/U or letter grading.


C255. Seminar: Invertebrate Zoology. (2) Seminar, two hours. S/U or letter grading.

C259. Seminar: Herpetology. (2) Seminar, three hours. Seminar on current approaches to herpetology. Main theme varies from year to year in areas such as biogeography, ecology, behavior, environmental physiology. S/U or letter grading.


C261. Molecular Ecology of Plant Populations. (2) Seminar, two hours. Recommended: course M200A. Integration of biological, statistical, and evolutionary principles to understand genetic structure of populations and the effects of natural and human disturbance on plant populations. S/U or letter grading.

M238. Ocean Biogeochemical Dynamics and Climate. (4) (Same as Atmospheric and Oceanic Sciences M235.) Lecture, three hours. Interaction of ocean 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. Anthropic perturbations of global carbon cycle 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 and land on and in ocean. S/U or letter grading.

C264. 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 hormonal regulation of stomatal responses; sensory transduction; stomatal adaptations, S/U or letter grading.


C270. Seminar: Environmental Physiology. (2) Seminar, two hours. S/U or letter grading.


C273. Seminar: Entomology. (2) Seminar, two hours. Discussion of specific topics in entomology and related fields. Main theme varies from year to year; but usually emphasizes areas such as behavior, ecology, and evolution. S/U or letter grading.


C279. Seminar: Evolutionary Biology. (2) Seminar, two hours. Requires: course M231. Emphasis on particular issue in evolutionary biology, varying in topic whenever offered. Topics may include advances in phylogenetic methodology; relationship between development and evolution; biogeography, climate change, and faunal evolution; dispersal mechanisms and macroevolutionary patterns; adaptation and diversification; macroevolutionary patterns in fossil record. S/U or letter grading.

C282. Seminar: Ichthyology. (2) Seminar, two hours. Requires: 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) (Same as Statistics M286.) Seminar, two hours. Designed for graduate students. S/U or letter grading. 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.


C290. Seminar: Comparative Physiology. (2) (Same as Physiological Science M290.) Seminar, two and one-half hours. Discussion of comparative physiology of animals. Topics vary from year to year, with emphasis on the systems physiology, neurophysiology, or behavioral physiology. S/U or letter grading.

C291. Seminar: Physiology and Biochemistry of Arthropods. (2) Seminar, two hours. S/U or letter grading.

C296. Seminar: Ecology and Evolutionary Biology. (1 to 4) Seminar, one to four hours. Selected topics in ecology and evolutionary biology, many with emphasis on current topics in cellular, organismic, and population biology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U or letter grading.

C297. Selected Topics in Ecology and Evolutionary Biology. (1 to 4) Seminar, one to four hours. Advanced study and analysis of variable research topics in research issues in ecology and evolutionary biology.
Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. S/U or letter grading.

299. Seminar: Parasitology. (2) Seminar, two 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 course and instruction at UCLA. May be repeated for credit. S/U grading.

495. Preparation for Teaching Biology in Higher Education. (2) 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 course 495 discussions on teaching, theory, and development of advanced skills. Study of methods and approaches to teaching of specific areas in biology, with emphasis on laboratory teaching, instructor/student interaction, and undergraduate motivation. S/U 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.


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**ECONOMICS**

**College of Letters and Science**

8283 Bunche Hall
Box 951477
Los Angeles, CA 90095-1477

**Economics**

310-825-1011

Dora L. Costa, PhD, Chair
Ichiro Obara, PhD, Graduate Vice Chair
Kathleen M. McGarry, PhD, Undergraduate Vice Chair
Andrew G. Atkeson, PhD, Director of Business Economics

**Faculty Roster**

**Professors**
John W. Asker, PhD (Armen A. Alchian Professor of Economic Theory)
Andrew G. Atkeson, PhD (Stanley M. Zimmerman Endowed Professor of Economics and Finance)
Simon A. Board, PhD
Moshe Buchinsky, PhD
Ariel T. Burstein, PhD
Dora L. Costa, PhD (Kenneth L. Sokoloff Professor of Economic History)
Sebastian Edwards, PhD (Henry Ford II Professor of International Management)
Jinyong Hahn, PhD
Gary D. Hansen, PhD
Hugo A. Hopenhayn, PhD
Edward E. Leamer, PhD (Chauncey J. Medberry Professor of Management)

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Adriana Liebes-Muney, PhD
Rosa L. Matzkin, PhD (Charles E. Davidson Endowed Professor of Economics)
Kathleen M. McGarry, PhD
Ichiro Obara, PhD
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Andres Santos, PhD
Aaron Tornell, PhD
Jonathan E. Vogel, PhD
Till M. von Wachter, PhD
Pierre-Olivier Weill, PhD
William R. Zame, PhD

**Professors Emeriti**
William R. Allen, PhD
Masanao Aoki, PhD
Costas Azariadis, PhD
Harold Demsetz, PhD
Bryan C. Ellickson, PhD
Roger E. Farmer, PhD
Arnold C. Harberger, PhD
Benjamin Klein, PhD
Deepak K. Lal, DPhil (James S. Coleman Professor Emeritus of International Development Studies)
Naomi R. Lamoreaux, PhD
Axel S. Leijonhufvud, PhD
John J. McCall, PhD
Joseph M. Ostroy, PhD
John G. Riley, PhD
Finis R. Welch, PhD

**Associate Professors**
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Pablo D. Fajgelbaum, PhD
Zhipeng Liao, PhD
Maurizio Mazzocco, PhD
Moritz Meyer-ter-Vehn, PhD
Sule Ozler, PhD

**Assistant Professors**
David R. Baqaee, PhD
Saki Bigio, PhD
Francois Geerolf, PhD
Michela Giorcelli, PhD
Felipe M. Goncalves, PhD
Martin B. Hackmann, PhD
Edward C. Kung, PhD
Jay Y. Lu, PhD
Rodrigo R.A. Pinto, PhD
Tommaso M. Sadzik, PhD
Shuyang Sheng, PhD
Bernardo S. Silveira, PhD

**Lecturer**
Edward P. McDevitt, PhD

**Adjunct Associate Professor**
Randall R. Rojas, PhD

**Adjunct Assistant Professors**
Patrick D. Convery, MBA, PhD
Olivia I. Osei-Twumasi, PhD
William E. Simon, JD, PhD

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**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.

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**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. In addition, they must be enrolled in UCLA regular session at the time of application.

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: Ten upper-division economics courses as follows: Economics 101, 102, 103, 103L, 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 corequisites.

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, and 103L.

Economics BA/Applied Economics MS Dual Program
An intercampus dual degree program between UCLA and UC Santa Cruz allows students to obtain a BA in Economics from UCLA and an MS in Applied Economics from UC Santa Cruz in five years. Contact the economics undergraduate counselor for additional information.

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. 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. 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, and (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 requisite 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 who wish to enter UCLA as Business Economics premajors.

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, and at least two courses from the 106 series; English Composition 131B; five upper-division elective courses in eco-
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. 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 requisites: 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 aggregate economics, including national income, monetary and fiscal policy, and international trade. P/NP or letter grading.

3. Introductory Economics. (4) Lecture, three hours. Not open to students with credit for course 1, 2, or former course 100. Principles of economics as tools of analysis. Presentation of core concepts of micro and macroeconomics to analyze wide range of social problems that economic theory illuminates. May not be used to fulfill entrance requirements for any Economics Department major. P/NP or letter grading.

4. Microeconomic Theory. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1, 2, Mathematics 31A, 31B. Laws of demand, supply, returns, and costs; price and output determination in different market situations. P/NP or letter grading.

5. Fiat Lux Freshman Seminars. (1) Seminar, three 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/NP grading.


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.

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Graduate Study
106E. Economics of Entrepreneurship. (4) Lecture, three hours. Requisite: course 101. Enforced corequire: course 106EL. Enrollment priority to Business Economics majors. Application of economic theory to practice of managing new businesses—combining elements of finance, marketing, and entrepreneurial finance courses. Examination of both strategic decisions of entrepreneurs (pricing, advertising, deterring entry) and more practical issues (funding, business plans, patents). Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/N or letter grading.

106EL. Economics of Entrepreneurship Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106E. Case-based analysis requiring students to apply material from course 106E to real-world problems regarding topics involving combining elements of strategy, marketing, and entrepreneurial finance courses. Examination of both strategic decisions of entrepreneurs (pricing, advertising, deterring entry) and more practical issues (funding, business plans, patents). Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/N or letter grading.


106FB. Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 106F. Case-based analysis requiring students to apply theory from course 106F to real-world problems involving topics such as discounted cash flow analysis, CAPM model, applications to public policy, and more. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/N or letter grading.

106G. Introduction to Game Theory. (4) Lecture, three hours; discussion, one to two hours (when scheduled). Requisite: course 101. Enforced corequisite: course 106GL. Enrollment priority to Business Economics majors. Introduction to basic ideas of game theory and strategic thinking. Discussion of ideas such as dominance, backward induction, Nash equilibrium, commitment, credibility, asymmetric information, and signaling, with application to examples from economics, politics, business, and other real-life situations. P/N or letter grading.

106GL. Introduction to Game Theory Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106G. Case-based analysis requiring students to apply material from course 106G to real-world problems involving topics such as game theory and strategic thinking in economics, politics, business, and other real-life situations. Hands-on data collection and problem solving and presentation of student analyses in writing with possible oral presentations. P/N or letter grading.


106IL. Organization of Firms Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106IL. Enrollment priority to Business Economics majors. Role of firms in traditional economic theory and modern developments in theory of firms. Topics include relationship between employer and employee, principal-agent models and moral hazard, formal versus relational contracts, successful firms as coherent systems of mutually supporting parts, property rights and asset ownership, boundaries of firms, employment versus independent contracting, rise of non-traditional firms, and levels of firm hierarchy. P/N or letter grading.

106M. Financial Markets and Financial Institutions. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 101, 102. Enforced corequisite: course 106ML. Application of analytical tools of economics and finance to real-world problems in 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 account for certain observed phenomena. Examination of potential effects of monetary and regulatory policies on financial markets. Topics include bond market, stock market, foreign exchange market, financial crises, and financial markets and financial regulation. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/N 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 106M. Case-based analysis requiring students to apply material from course 106M to real-world problems involving financial markets and financial institutions. Issues include potential effects of monetary and regulatory policies on financial markets. Topics include bond market, stock market, foreign exchange market, financial crises, and financial regulation. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/N or letter grading.


106PL. Pricing and Strategy Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106P. Case-based analysis requiring students to apply material from course 106P to real-world problems involving linear programming and shadow pricing, peak load pricing, two-part pricing, strategic pricing, and auction bidding. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/N or letter grading.

106T. Economics of Technology and E-Commerce. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 101, 102. Enforced corequisite: course 106TL. Use of rigorous economic tools to analyze world of technology and e-commerce. Examination of economic theory, empirical analysis, and policy system of 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/N 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/N or letter grading.

106V. Investments. (4) Lecture, three hours. Requisite: course 102. Recommended: course 106V. Enforced corequisite: course 106VL. Enrollment priority to Business Economics majors. Introduction to principal investment and portfolio theory. Topics include optimal portfolio construction, fixed income analysis, option pricing, and other investment topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/N or letter grading.

106VL. Investments Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 106V. Case-based analysis requiring students to apply theory from course 106V to real-world problems regarding issues 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/N or letter grading.


110. Theories of Economic Growth and Development. (4) Lecture, three hours. Requisites: courses 11, 101, 103. Application of theoretical and empirical tools from microeconomics to provide insights into problems confronting low-income countries today and to evaluate policies that are likely to be effective in improving well-being of poorest on globe. P/N 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 perspec- tive implies foregrounding gender to include paid and unpaid work; examining gender differences in work; access to resources; and well-being outcomes; and how these are affected by macroeco- nomic policies and how gender inequalities are rele- vant for societal well-being. Since early 1980s eco- nomic globalization has been achieved on basis of common set of macroeconomic policies pursued in in- dustrial and developing countries alike. These policies frame both gender-differentiated impacts of policy and initiatives that are implemented to reduce inequalities between men and women. Examination of impact of these policies on gender inequalities in developing countries. P/N or letter grading.


121L. International Trade Theory Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Corequisite: course 121. Case-based analysis requiring students to apply material from course 121 to real-world problems involving international trade. Topics and analysis include theory of international trade; bases, direction, terms, volume, and gains of trade; effects of tariffs; quantitative restrictions, and international integration; effects of free and restricted trade on economic welfare and political stability. P/N or letter grading.

122. International Finance. (4) Lecture, three hours; discussion, one hour. Requisite: course 102. Enforced corequisite: course 122L. Not open to students with credit for former course 122. Emphasis on interpretation of balance of payments and adjustment to na- tional and international crises. Analysis of changes in price levels, exchange rates, and national income. Other topics include making international payments, determination of exchange rates under various mone- tary standards, capital movements, exchange con- trays, and international monetary organization. P/N or letter grading.

122L. International Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 122L. Case-based analysis requiring students to apply material from course 122 to real-world problems involving interna- tional finance. Topics and analysis include balance of payments, exchange rates under various monetary ar- rangements, capital flows, exchange controls, and in- ternational monetary organization. Hands-on data col- lection and problem solving and presentation of student analyses in writing. P/N or letter grading.
M103.C. Foreign Exchange Market and Exchange Rate Forecasting. (5)
(Same as Honors Collegium M103.) Seminar, four hours. Introduction to forecasting of exchange rates. Theory linked with real-world data through use of powerful Analytical called Translation in computer laboratory. Analysis of how foreign exchange market works, what financial instruments are used in this market, and what main theoretical determinants of exchange rate. 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 generate codes to generate exchange rate forecasts and to evaluate accuracy of student forecasts. P/NP or letter grading.

C126A-C126B-C126C. Seminars: International Economics. (4–4–4) Seminar, three hours. Requires: courses 11, 101, 102. Limited to seniors. Overview of most current developments in international 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 in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C296A-C296B-C296C. P/NP or letter grading.

134. Behavioral Economics. (4) Lecture, three hours. Enforced prerequisite: 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 by 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 economics and examine how people respond when faced with increased understanding of inequality, how to measure it, how inequality has increased in U.S., how America differs from other rich countries, and what causes it. Inequality is now more pronounced in urban setting. Topics include urbanization and urban growth, housing markets, location decisions of households and firms, transportation, urban labor markets, and local public sector. P/NP or letter grading.

140. Inequality: Mathematical and Econometric Approach. (4) Lecture, three hours. Requires: courses 101, 103, and Mathematics 33A or 115A. In past decade econo­mists have learned remarkable amount about how society works. Increased understanding through application of distinctively economic methods of research—explicit mathematical models and eclectic statistical techniques—to topics like health care, crime, and economics. Leading researchers examine how to increased understanding of inequality, how to measure it, how inequality has increased in U.S., how America differs from other rich countries, and what causes it. Course will focus on two important influences on inequality — education and health. P/NP or letter grading.

141. Topics in Microeconomics: Mathematical Finance. (5) Lecture, three hours; computer laboratory, one hour. Requires: course 11, Mathematics 32A, either Statistics 100A or Mathematics 170A. Economics of financial markets, competitive equilibrium with time and uncertainty, one period security market model, market completeness. P/NP or letter grading.

142. Topics in Microeconomics: Probabilistic Micro­economics. (4) Lecture, three hours. Requires: course 101. Combination of basic probability introduced in Statistics 11 with microeconomic models presented in courses 11 and 101 in order to explain phenomena such as insurance, stock search, and stock market behavior. Optimal production and consump­tion under uncertainty. Review of probability and intro­duction to probability measures of risk and risk aver­sion. P/NP or letter grading.

143. Advanced Econometrics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requires: course 101; credit to students with credit for former course 147A or 147B. Heteroskedasticity, limited dependent variable, panel data, time-series. P/NP or letter grading.

144. Economic Forecasting. (4) Lecture, three hours. Preparation: familiarity with data analysis software (e.g., R, Excel, MATLAB, Stata) and/or programming experience. Enforced prerequisites: courses 101, 103/103L. Survey of theory and application of time-series methods to forecasting in economics, business, and government. Topics include modeling and forecasting trend, seasonality, and cycles. Discussion of stochastic trends, volatility measure, and evaluation of forecasting techniques based on real-world data analysis methods widely used by econom­ists and other professionals. P/NP or letter grading.

145. Topics in Microeconomics: Mathematical Eco­nomics. (4) Lecture, three hours. Requires: course 101. Possible topics include game theory; competitive equilibrium analysis; examination of market failure and role for market intervention. P/NP or letter grading.

C146A-C146B-C146C. Seminars: Asset Pricing. (4–4–4) Seminar, three hours. Requires: courses 11, 101, 102. Limited to seniors. Overview of most current developments in asset pricing theory for advanced undergraduate and graduate students. Introduction to graduate-level research in asset pricing and consequences of each topic, 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 C266A-C266B-C266C. P/NP or letter grading.

150. Labor Economics. (4) Lecture, three hours. Requires: courses 11, 101, 103. Enforced corequisite: course 150. Case-based analysis requiring students to apply theoretical tools from course 101 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, monopsony in labor market, quasi-fixed labor demand, 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. Requires: courses 101, 150. Selected topics in labor theory; income distribution; business cycles and unemployment; investments in human capital and life cycles; migration; human fertility; marriage and di­ vorce, etc. P/NP or letter grading.

C156A-C156B-C156C. Seminars: Labor Econom­ics. (4–4–4) Seminar, three hours. Requires: 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 topic each week, with presentation and discuss­ion of recent developments. Instructors in rotating capacity. P/NP or letter grading.

160. Money and Banking. (4) Lecture, three hours. Requires course 102. Principles of money and banking in U.S.; legal and institutional framework; money and credit; monetary policy; credit expansion and contraction; and effects of monetary shocks; theory and practice of monetary policy. P/NP or letter grading.


164L. Advanced Topics in Macroeconomics: Theory of Economic Growth Laboratory (4–4–4) Lecture, one hour; laboratory, one hour. Requisite: course 164. Corequisite: course 164L. Case-based analysis requiring students to apply theory from course 164 to real-world 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 102. Enforced corequisite: course 165L. Field of student analyses in writing. P/NP or letter grading.

C166A-C166B-C166C. Seminars: Monetary Economics/Macroeconomics (4–4–4) Seminar, three hours. Requisite: course 102. Limited to seniors. Overview of topics in monetary economics and macroeconomics 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.

167. Victims and Villains; Panics and Bubbles. (4) Lecture, three hours. Requisites: course 101, Management and Economics (may be taken concurrently). Focuses on phenomena of panics, bubbles, and manias in financial history. In-depth analysis and discussion of underlying causes, public and private policy responses, similarities, and contemporary issues in today’s 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 crisis with case and discussion on each component. Also covers five other financial crises: panic of 1907, credit boom in Russia 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). Introduc tion to investment analysis and corporate valuation. Emphasis on fundamentals of financial economics relating to value investing, and demonstration of how these ideas compare favorably with other investment approaches. Topics include valuation of stocks and bonds; estimation of growth and valuation of common stocks; valuation of firms; how to choose between investment and speculation; why to search for inefficiencies in marketplace, and importance of incorporating margin of safety in any analysis. Introduction of standard accounting and valuation tools, including liquidity and value. Prepares students to analyze and interpret financial statements. Designed for students considering careers in security analysis, investment banking, consulting, 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 introductory courses to address long-term, and 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 in light of an ever-changing master. Also covers market dynamics that can create opportunities to find structurally mispriced securities such as rights-offerings, specialty funds, arbitrage, and liquidation. Designed to prepare students constructing positions in securities analysis, investment banking, consulting, 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 170L. 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. Recommended corequisite: course 168. Designed to give foundation in topics within field of industrial organization relating to regulation of monopoly power within economy and different ways that this manifests across firm conduct and industrial settings. Includes review of historical antitrust policy, with some exploration of intersection between economics and law. Topics include in-depth analysis of various frameworks and abstract 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, 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 form 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 together. In Progress 173A and P/NP or letter (173B) grading.

174. Economics of Sports. (4) Lecture, three hours. Requisites: courses 11, 41, 101. Recommended: courses 103/103L. Course in applied microeconomics to explore complex 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 (costbenefit analysis) and public/private partnerships in facility financing, relationship between academics and athletics in college sports, racial discrimination in sports, exploration of behavioral issues such as strategic effort, measuring return on investment from sport sponsorships, and calculation of economic damages in legal cases involving athletes. P/NP or letter grading.

C175A-C175B-C175C. 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. Introduce to graduate-level research in this field. Discussion of relevant research papers 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 C276A-C276B-C276C. 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 181. Empirical analysis requiring application of material from corresponding lecture. Course materials to selected reading from Mathusian 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.

183. Development of Economic Institutions in U.S. (4) Lecture, three hours. Requisites: courses 11, 105. Empirical economic analysis requiring application of material from corresponding lecture. Course materials to selected reading from basic economic conditions in U.S. from Colonial times to early 20th century and effects of these changes on American society. P/NP or letter grading.

183L. Development of Economic Institutions in U.S. Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 11. Enforced corequisite: course 183. Empirical analysis requiring students to apply material from corresponding lecture. Course materials to selected reading from basic economic condition with analysis of topics such as migration, slavery, industrialization, capital formation, Great Depression, human capital formation, and California development and related topics. 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 188B) Lecture, one hour. Enrollment priority to department majors. Designed to provide Business Economics majors with key knowledge and practical skills used in real world that complement traditional academic accreditations 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, financial market activity, unemployment, banking crises, market updates, and all related business topics. P/NP grading.

C186A-C186B-C186C. Seminars: Economic History. (4–4–4) Seminar, three hours for seniors. Overview of most current developments in economic history for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Discussion of relevant research papers 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 C246A-C246B-C246C. P/NP or letter grading.

work in teams alongside staff of local nonprofit organizations to develop tailored plan of work for 10-week academic year. Students meet as needed to carry out research under the direction of staff or participate in work associated with supervision of instructors and with assistance of experienced entrepreneur volunteers. P/NP or letter grading.


188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Experimental Honors Collegium Tutorials. 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 for credit. 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: Economics. (4) Seminar, three hours. Enforced requisite: courses 101, 102, 103. Research seminars on selected topics in economics. Reading, discussion, and development of culminating project. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

192. Undergraduate Practicum in Economics. (3) Seminar, two hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students. Students assist in preparation of course materials and development of innovative programs with guidance of faculty members. P/NP or letter grading.

195A-195B. Community or Corporate Internships in Economics I, II. (2–4) Tutorial, to be arranged. Requisites: courses 11, 101. Limited to junior/senior Economics, Business Economics, Economics/International Area Studies, Economics/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 III. (2) Tutorial, fieldwork, eight to ten hours. Requisites: courses 11, 101. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated by Economics Department. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and student coordinator construct sequence of readings and assignments that examine issues related to internship site. May not be applied toward major requirements. 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 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 mentor. 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 send semester 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. May not be repeated. 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 on program 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 of country or 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, univariate 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 algebra and its application to linear difference equations. Basic real analysis, normed vector space/ Banach space, Hahn/Banach theorem, Schauder fixed point theorem, and theory of correspondences. S/U grading.

201A-201B. Mathematical Economics. (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 refinements, mechanism design and the revelation principle, signaling, moral hazard, bidding, price discrimination, and public good provision. S/U or letter grading.


203A. Introduction to Econometrics I. (4) Lecture, three hours; discussion, one hour. Probability and statistical tools for econometric models. Topics include random variables, distribution and density functions, transformations, identification, sampling, estimators, asymptotic properties. S/U or letter grading.

203B. Introduction to Econometrics II. (4) Lecture, three hours; discussion, one hour. Estimation and testing. Basic linear regression model, tests of hypothesis, generalized least squares, heteroscedasticity, multicollinearity, error-in-variables, and qualitative dependent variables. S/U or letter grading.

203C. Introduction to Econometrics III. (4) Lecture, three hours; discussion, one hour. Econometrics methods for time-series econometrics, including theory and applications. Topics include detrending techniques, unit root theory, cointegrated system approaches, autocorrelation robust inference, Wold and Beveridge and Nelson (BN) decompositions, model selection, nonlinear nonstationary models, spatial density asymptotics and semi-nonparametric time-series models. S/U or letter grading.


M204A-204B-204C. California Population Research Topical Seminar Series. (4–4–4) (Same as Sociology M225SA.) Seminar, three hours. Examination of issues such as demography, health, aging, labor, and broad and abstract issues concerning the microeconomic, social, and political transformations on human behavior both in U.S. and abroad. Each course may be taken independently for credit. S/U or letter grading.

M204L-M204M-M204N. Seminars in Mathematical Economics and Policy. (1–1–2) (Same as Health Policy M204A-M204B-M204C.) Seminar, three hours every other week. Requisite: Health Policy M236. Limited to graduate public health and economics students. Various topics in economics and pharmaceuticals.
industry, including risks of innovation, drug regulation, and economic impact of pharmaceuticals, in Progress (M204L) or letter (M204M) grading.

204R. (4) Lecture, three hours. Preparation: compilation of first-year microeconomics and graduate econometrics courses. In past decades economists have learned remarkably about how society works. Increased understanding has come about through application of distinctly economic methods of research—explicit mathematical models and eclectic statistical techniques—to topics such as healthcare, crime, education, and immigration. Taken together this work has led to increased understanding of inequality, how to measure it, how inequality has increased in U.S., how America differs from other rich countries and, most important, what causes inequality. Study of this work, with focus on two important influences on inequality—education and health—which are two areas in which knowledge is accumulating most rapidly. S/U or letter grading.

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 bringing together outside speakers with scholars and students from the Law School and academic departments. Topics include contracts, torts, intellectual property, and business law. Students write graded reaction papers. May be repeated for credit. Concurrently scheduled with Law 448 and Management 294A, S/U or letter grading.

207. History of Economic Thought. (4) Lecture, three hours. Topics from classical economics, including work of Smith, Ricardo, and Mill, and developments of marginalist contributions in major figures of marginalist revolution, socialist controversy, and history of welfare economics. S/U or letter grading.

M208. Introduction to Demographic Methods. (4) Same as Biostatistics M208, Community Health Sciences M208, and Sociology M213A.) Lecture, four hours; Preparation: one introductory statistics course. Introduction to demographic analysis. Topics include demographic rates, standardization, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population growth, populations, population projection, and demographic data sources. Letter grading.

Economic Theory

211A. Contract Theory. (4) Lecture, three hours. Preparation: introductory probability. Enforced requisite: course 201C. Study of trading relationships between small number of agents. Coverage of many tools and techniques used in modern economic analysis, adverse selection, and incomplete contracting, starting with static models of moral hazard and mechanism design and development of their dynamic counterparts. Foundation of environments where agents cannot use formal contracts, studying relational contracts and trading relationships with no contracts. Analysis of wide variety of applications from industrial organization, corporate finance, personnel economics, and public economics. S/U or letter grading.

211B. Economics of Uncertainty, Information, and Games. (4) Lecture, three hours. Preparation: introductory probability. Enforced requisite: course 201C. Intended for students who are interested in doing research in microeconomic theory and for students who want to acquire good theory background to do applied work. Coverage of combination of standard results in field and topics of current research, including notions of equilibrium in static and dynamic games, reasoning in games, repeated games, games of incomplete information, and experiments. S/U or letter grading.

212A-212Z. Topics in Advanced Theory. (4 each) Lecture, three hours. Current research in microeconomic theory. Content varies. Courses in this sequence not ordinarily given every year. May be repeated for credit. S/U or letter grading.


212B. Applied Game Theory. (4) Lecture, three hours. Preparation: calculus, introductory probability. Use of theory of Bayesian games to study bargaining, monetary theory, and oligopoly. Use of theory of mechanisms to study auction design and imperfectly competitive markets. May be repeated for credit. S/U or letter grading.

214A. General Equilibrium Theory. (4) Lecture, three hours. Preparation: course 201C. Core convergence theorem, cooperative and noncooperative approach to competitive equilibrium theory, perfectly competitive equilibria, no-surplus condition, and applications to mechanism theory and incomplete market models. S/U or letter grading.

214Z. Topics in Mathematical Economics. (4 each) Lecture, three hours. Preparation: course 213B. Current research in mathematical economics. Content varies. Only one course in this sequence given every year. May be repeated for credit. S/U or letter grading.

216. Advanced Macroeconomics I. (4) Lecture, three hours. Preparation: course 213B. Recent research in mathematical economics. Extension of first-year microeconomics and graduate econometrics courses. In past decade economists have learned remarkably about how society works. Increased understanding has come about through application of distinctly economic methods of research—explicit mathematical models and eclectic statistical techniques—to topics such as healthcare, crime, education, and immigration. Taken together this work has led to increased understanding of inequality, how to measure it, how inequality has increased in U.S., how America differs from other rich countries and, most important, what causes inequality. Study of this work, with focus on two important influences on inequality—education and health—which are two areas in which knowledge is accumulating most rapidly. S/U or letter grading.


221D. Monetary Economics IV. (4) Lecture, three hours. Preparation: courses 220A, 220B, 220C. Emphasis on applied macroeconomics, with topic change each year. Students select one particular data set 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 technique 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.

C226A-C226B-C226C. Seminars: Monetary Economics / 369. (4–4–4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in monetary economics and macroeconomics 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 C166A-C166B-C166C, S/U (C226B) and U or letter (C226A, C226C) grading.

C228A-222B-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.


C231A. Advanced Econometrics I. (4) Lecture, three hours. Econometric methods for microeconometric models. Topics include identification, nonparametric estimation, limited dependent variable models, duration, panel data, tests of hypotheses. S/U or letter grading.

C231B. 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 games, social interactions, matching, and network formation. S/U or letter grading.

C231C. 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 Selectors techniques, and bootstrap. May be repeated for credit. S/U or letter grading.

Econometrics

231A. Advanced Econometrics I to IV. (4 each) Lecture, three hours. Preparation: letter (M204N) or S/U grading.

231A. Monetary Economics I. (4) Lecture, three hours. Preparation: letter (M204N) or S/U grading.

231B. Monetary Economics II. (4) Lecture, three hours. Preparation: letter (M204N) or S/U grading.
Applied Microeconomics

261B. Labor Economics II. (4) Lecture, three hours. Designed for graduate students. Introduction to labor markets. Research in progress discussed by graduate students. UCLA faculty members. S/U or letter grading.

262A-262Z. Topics in Labor Economics. (4 each) Lecture, three hours. Preparation: completion of first-year graduate microeconomics 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.

262D. Development Economics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of important topics related to 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 insurance programs. S/U or letter 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.


266A-C266B-C266C. Seminars: Labor Economics. (4–4–4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in labor economics for advanced undergraduate and graduate students. Intro- duction to graduate-level research in this field. Different topics each week, with presentation and dis- cussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C156A-C156B- C156C. S/U(C266B) and S/U or letter (C266A, C266C) grading.

268A-268B-268C. Proseminars: Labor and Popula- tion. (4–4–4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers working on empirical issues in areas of labor and popu- lation, broadly defined. Presentation of work-in-prog- ress or background material for proposed thesis topics, to be discussed and criticized by faculty and fellow students. Presentation or research paper re- quired. S/U grading.


Industrial Organization


Public Finance


251B. Cost-Benefit Analysis of Public Projects and Programs. (4) Lecture, three hours. Preparation: course 251A. Presentation of those aspects of applied capital theory that are relevant in decisions concerning in- vestment projects in first part of course. Differences between social and private benefits and costs (shadow prices) for foreign exchange, capital, and labor, with applications to public investment deci- sions, in second part of course. S/U or letter grading.

262. Economics of Time Series. (4) Lecture, three hours. Current research in economics. Content varies. Topics include Social Security taxes and programs, unemployment insurance, public provi- sion of health care, occupational safety, and theory of public choice. May be repeated for credit. S/U or letter grading.

254A-254B-254C. Workshops: Public Economics. (4–4–4) Lecture, three hours. Designed for graduate students. Workshops for advanced graduate students. Research in progress discussed by graduate students. UCLA faculty members, visiting experts. S/U grading.


272A-272Z. Topics in Industrial Organization. (4 each) Lecture, three hours. Current research in industrial organization. Content varies. May be repeated for credit. S/U or letter grading.

273A. Public Utility Regulation. (4) Lecture, three hours. Theory, practice, and consequences of regulation in electric power, gas, water, telecommunications, broadcasting, and air transportation. Linkages of regulated industries with other aspects of the economy. Effects of unregulated monopoly and public enterprises by way of contrast. S/U or letter grading.

C275A-C276B-C276C. Seminars: Industrial Organization. (4–4–4) Seminar, three hours. Designed for predissertation and dissertation writers. 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 critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C176A, C176B, and S/U or letter (C276A, C276C) grading.

278A-278B-278C. Proseminars: Industrial Organization and Regulation. (4–4–4) Seminar, three hours. Quarterly seminar and dissertation writers discussed advanced topics and recent developments in industrial organization and regulation. Presentation of work-in-progress for feedback from faculty and fellow students. Research paper required. S/U grading. Also see Management 262 (pricing policy)

International Economics


282A-282Z. Topics in International Economics. (4 each) Lecture, three hours. Current 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. Intended and unintended outcomes of methods. S/U or letter grading.


Development Economics


286B. Cost-Benefit Analysis of Development Projects. (4) Lecture, three hours. Requisite: course 286A. Development and aid projects, with special attention to types of issues that arise in developing countries. Discussion of social versus private evaluation criteria; applications to highway, electricity, and irrigation projects. S/U or letter grading.

287A-287Z. Topics in Development Economics. (4 each) Lecture, three hours. Current research in development economics. Content varies. Courses in this sequence not offered every year. May be repeated for credit. 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. Designed for graduate students. Topics in monetary and exchange rate policy in developing countries, Students expected to develop analytical tools and underlying policy issues. May be repeated for credit. S/U or letter grading.


296A-296B-296C. Proseminars: Asset Pricing. (4–4–4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers on empirical issues in the area of asset pricing. Highly defined. Presentation of work-in-progress by background material for proposed dissertation topics that are discussed and critiqued by faculty members and fellow students. Presentation or research paper required. S/U grading.

Teaching Practicum

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel with credit as teaching assistant, assistant professor or fellow. Teaching students under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U 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 producer surplus, monopoly and competition, Walrasian equilibrium and the two welfare theorems, constant returns to scale economy, choice over time, uncertainty, and 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 core 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 macroeconomics, including macroeconomic data, 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.


403A. Introduction to Statistical Methods and Econometrics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to probability, statistics, econometrics, and time-series methods used in economics, business, and government. Topics include random variables, hypothesis testing, estimation, distribution functions, simple and multiple regression, and estimation with stationary/nonstationary processes. Letter grading.


404A. Writing and Presentation Skills for Economists I. (4) Seminar, three hours. Limited to Master of Applied Economics students. Taught by professionals to help students develop communication and presentation skills essential for success in any aspect of business. Practice writing economics documents for variety of professional audiences, including 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, because audience determines diction, style, tone, organization, research, and ideas. Grammar incorporated as needed, especially in regard to writing. Letter grading.

404B. Writing and Presentation Skills for Economists II. (4) Seminar, three hours. Limited to Master of Applied Economics students builds on skills learned in course 404A. Writing component to focus on summarizing, summarizing, analyzing writing used and self-editing skills stressed. Presentations include summary/critique, opinion piece, and final group presentation that includes proposals. Grammar incorporated as needed, emphasis on writing. 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
that affect them, including data, current case evidence, cutting-edge empirical methods, and their relation 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 microeconomic theory, with an emphasis on the theoretical and empirical approaches to understanding incentives within firms, as well as competition between them. Study of theoretical models and fundamental economic concepts that lie at the heart of modern economics and application of them to understand incentives within firms, as well as competition between them. Consideration of whether we can design policies that improve market outcomes. Role of models in economics, and how to tie data and theory together. Letter grading.

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 trade models, analysis of firms and heterogeneous producers, and economic geography topics. Case studies and empirical papers focus on understanding determinants of trade patterns and on measurement of aggregate and distributional effects of international trade. Discussion of recent research on effects of NAFTA and other free trade agreements on inequality in developed and developing countries, and impact of infrastructure investments on trade and development. Letter grading.

423. Introduction to Applied Data Science. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Designed to build strong bases in tools and methods of data science and analytics. Introduction of tools for capture, transformation, visualization, and mapping of data for downstream processing in analytics pipeline. Introduction of analytics subsystems and scalable storage and processing of very large and complex data sets. Information theory, computational analysis, and behavioral economics with specific emphasis on data science in economics. Letter grading.

424. Income Inequality. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Investigation of rise of earning inequality with an 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 empirical trends, with emphasis on understanding how to document these facts ourselves. Consideration of three classes of potential explanations for these patterns: international connections (e.g., trade and immigration), institutional change (e.g., minimum wage and unionization), and technical change (e.g., computerization and spread of robots). Focus on quantifying these forces ourselves. Study of top income inequality; why have extremely rich 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 machine learning algorithms, models, and theories, and introduces advanced engineering practices for implementing data-intensive intelligent systems. Topics include supervised methods (e.g., support vector machine, neural network, etc.) and unsupervised methods (e.g., clustering, dimensionality reduction, etc.), and their applications in classification, regression, 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. Covers set of fundamental machine learning algorithms, models, and theories, and introduces advanced engineering practices for implementing data-intensive intelligent systems. Topics include data processing, association rules, supervised learning, clustering, and visualization, social network analysis, sentiment mining, and opinion analysis. Focus on making sense of large-scale or web-scale dataset, and providing students with firsthand 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. Foundational course with primary application to data analytics. Intended to be accessible to students from backgrounds such as economics or 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 specific policy changes and their costs and benefits. Letter grading.
Louis M. Gomez, PhD  
Sandra H. Graham, PhD (President of Education and Diversity)  
Tyrene C. Howard, PhD  
Sylvia Hurtado, PhD  
Connie L. Kasari, PhD  
Reynaldo F. Macias, PhD  
Teresa L. McCarty, PhD (George F. Kneller Professor of Education and Anthropology)  
Patricia M. McDonough, PhD  
Rashmita M. Mistri, PhD  
Pedro A. Noguera, PhD  
Marjorie Fauttich Orellana, PhD  
Cecilia Rios-Aguilar, PhD  
John S. Rogers, PhD  
William A. Sandoval, PhD  
Linda J. Sax, PhD  
Michael H. Seltzer, PhD  
Daniel G. Solórzano, Jr., PhD  
Carola E. Suárez-Orozco, PhD  
Marcelo M. Suárez-Orozco, PhD, Dean  
Robert T. Teranishi, PhD (Morgan and Helen Chu Professor of Asian American Studies)  
Carlos A. Torres, PhD (UNESCO Professor of Global Learning and Global Citizenship Education)  
Noreen M. Web, PhD  
Jeffrey J. Wood, PhD

Professors Emeriti

Marvin C. Alkin, EdD  
Alexander W. Astin, PhD (Allan Murray Cartter Professor Emeritus of Higher Education)  
Eva L. Baker, EdD  
Gordon L. Berry, EdD  
Nicholas G. Blorton Jones, PhD  
Arthur M. Cohen, PhD  
Sol Cohen, PhD  
Aimée Dor, PhD  
Frederick D. Erickson, PhD (George F. Kneller Professor Emeritus of Education and Anthropology)  
Norma D. Feshbach, PhD  
Patricia C. Gandara, PhD  
Simon González, EdD  
Kris D. Gutierrez, PhD  
Sandra Harding, PhD  
John N. Hawkins, PhD  
Charles C. Healy, PhD  
Carollee Howes, PhD  
Douglas M. Kelner, PhD  
Barbara K. Keoh, PhD  
Marlilly L. Kourilsy, PhD  
Peter L. McLaren, PhD  
John D. McNeil, EdD  
Bengt Mühlen, PhD  
Jeanie L. Oakes, PhD (Presidential Professor Emerita of Educational Equity)  
Gary A. Orfield, PhD  
W. James Popham, EdD  
Mike A. Rose, PhD  
Val D. Rust, PhD  
Rodney W. Skager, PhD  
Romeria Tidwell, PhD  
Concepción M. Valadez, PhD  
Carl Weinberg, EdD  
Richard C. Williams, PhD  
Welford W. Wilms, PhD  
Charles Z. Wilson, PhD

Associate Professors

M. Kevin Eagan, Jr., PhD  
David G. Garcia, PhD  
Minjeong Jeon, PhD  
José-Felipe Martínez, PhD  
Safiya U. Noble, PhD  
Edith Mukudi Omwami, PhD  
Mark P. Hansen, PhD, in Residence  
Jessica C. Harris, PhD  
Ozan Jaquette, PhD  
Ananda Drake Marin, PhD  
Anna J. Markowitz, PhD  
Federica Raia, PhD, in Residence

Adjunct Professors

Katherine M. Anderson-Levitt, PhD  
Diane Durkin, PhD  
Faye C. Peitzman, PhD  
Jody Z. Priselac, EdD  
Karen Hunter Quartz, PhD  
Linda P. Rose, PhD

Scope and Objectives

As one of the top-ranked public graduate programs in education in the nation, the Department of Education is guided by a commitment to integrate theory and practice and to improve educational practice and policy. The department attracts prominent scholars and is internationally recognized for its research centers in evaluation, higher education, child development, and urban education. Whether students choose to pursue a PhD, an EdD, a master's degree, or a services or instructional credential, they graduate with a broad understanding of educational theory and tested practice.

Undergraduate Study

Education Studies Minor

The Education Studies minor is intended to address the diverse information needs of the UCLA undergraduate community to (1) allow students to learn more about the multitude of contemporary professional research issues confronting the field of education, (2) understand the complex interactions between the legal, social, political, and economic forces that influence and shape educational policies in America, (3) provide an introductory course sequence for students who wish eventually to pursue careers in education either as teachers or researchers, and (4) offer an analysis of current educational practices by which UCLA students can become better consumers of educational services as future parents, taxpayers, and citizens. To enter the minor, students must have completed one minor course from the approved course list, have at least sophomore standing with a minimum overall 2.3 (C+) grade-point average, and file an admission application with the Education Studies academic division in the Office of Student Services, 1009 Moore Hall. Applicants are expected to be committed to inquiry of issues central 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 (32 units minimum): A minimum of four core courses selected from Education M108, 118 through 138, 149, 187, and M194A, M194B, M194C, and three additional courses, one of which must be upper division, selected from the core courses listed above or from 10, 11, 35, 80, 92A through 92F, M102, M103, M112, 140, 141, 142, 143, 144, M145A, M145B, 146A, 146B, 147, M148, 162, CM178/CM178L, 185, 191A through 191X, 192A/170A, 192B/170B, 196C.

Only one course from Education 80 and 92A through 92F may be applied toward the elective requirement. Courses CM178/CM178L, 192A/170A, and 192B/170B must be taken concurrently.

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.

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, Doctor of Education (EdD) degree, Doctor of Philosophy (PhD) degree in Special Education (with California State University, Los Angeles), and Doctor of Education (EdD) degree in Educational Administration (with UC Irvine). One articulated degree program (Education MEd/Latin American Studies MA) and one concurrent degree program (Education MEd, MA, EdD, or PhD/Law JD) are also offered.

Education Lower-Division Courses

10. Introduction to Educational Issues and Scholarship. (4) Lecture, two hours; discussion, two hours. Introduction to broad landscape of public education in U.S. Intended for those interested in educational research, policy, or teaching in both formal and informal educational contexts. Readings highlight work of educational researchers from UCLA's Department of Education, especially ways their scholarship intersects with policy and practice. Students work in groups to identify real-life problem affecting public education in Los Angeles. Study of this problem from multiple perspectives. Conceptualization of socially-just solution. Letter grading.

11. Education, Equality, and Future of American Society: Problems, Prospects, and Policies. (5) Lecture, four hours; discussion, one hour. Schools are primary institutions charged with responsibility of preparing 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 essential to economy; 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 paths of discovery at UCLA. P/NP grading.

35. Introduction to Inquiry and Research in Education. (3) Lecture, two hours; discussion, two hours. Introduction to empirical and analytical educational research. Intended for undergraduates interested in learning how to recognize sound research designs, and how to conceptualize and design small-scale research. Overview of different methods of conceptualizing inquiry and gathering evidence, including qualitative approaches (e.g., ethnographic, narrative, case study) and quantitative approaches (e.g., survey, correlational, quasi-experimental). Highlights multiple methods of inquiry and research, ethics of conducting research in schools, and norms of conducting and reporting research in field of education. Brief overview and history of major strands of research in education over last century. Letter grading.

80. Understanding Collegiate Experience. (4) Seminar, three hours. Analysis of learning theory and educational research on major issues ranging from reasons why students go to college to how students are ultimately influenced by college experience. Letter grading.

85A-B-C. Evaluation for Practitioners. (1-2) Tutorial, one hour. Provides participating Student Initiated Access Center (SIAC) program staff with basic understanding of evaluation skills. Students learn how to describe programs in terms of inputs, activities, outputs, and outcomes and are able to frame relevant and measurable evaluation questions based on program needs. P/NP grading.

98. Critical Issues in Education. (4) Seminar, four hours. Examination of role colleges and universities play in shaping public understandings of major issues, with focus on theories of culture, cultural transmission, and economic forces impact Chicana/Chicano educational attainment and achievement. Examination of historical, social, political, and economic forces impact Chicana/Chicano educational attainment and achievement. Letter grading.

Upper-Division Courses

M102. Mexican Americans and Schools. (4) (Same as Chicana and Chicano Studies M102.) Seminar, two hours; discussion, two hours. Theoretical and empirical overview of Chicana/Chicano educational issues in the U.S., with special emphasis on dismantling effects of race, gender, class, and immigrant status on Chicana/Chicana educational attainment and achievement. Exploration of Chicana/Chicana educational attainment and achievement. P/NP or 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. Introduction to Arts Education for Multiple Publics: Theory and Practice. (4) (Same as Arts Education M102.) Seminar, three hours; outside study, nine hours. Focus on arts education 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 schools and arts organizations. 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.

M108. Sociology of Education. (5) (Same as Sociology M175S.) Lecture, four hours; discussion, one hour. Study of how U.S. educational system both promotes socioeconomic development and maintains socioeconomic inequalities: historical and theoretical perspectives on role of education in U.S. society; trends in educational attainment; ways in which family background, class, and race affect educational achievement and attainment; stratification between and within schools; effects of education on socioeconomic attainment, family, health, attitudes, and social mobility; educational inequalities and access to public and private education. P/NP or letter grading.

M112. Inner and Outer Worlds of Children: Social Policies. (4) (Same as Honors Collegium M112.) Seminar, four hours. Policy analysis of social policies impacting on children. Topics include assessments, social justice, and geographical space, temporal orientation, and classical theories of adolescent development. 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, personal, and political aspects of literacy and their implications for teaching and learning. Examination of literacy in workplace, health-care, and community. Consideration of new literacies, relationships between literacy and technology, and impact of literacy on income and opportunity. Letter grading.


121. Introduction to K-12 Issues in American Public Education. (5) Seminar, four hours. Examination of American schooling experience (K-12) and analysis of various school and social institutions that impact on children and adolescents. Systematic examination of major participants in American schooling process (parents, students, teachers, geographical space of school environment, school organizations, and society) and how they are associated with American schooling experience. Discussion of contemporary themes such as risk behaviors, SAT controversy, high school curriculum, examination, college admission processes, technology in classroom, psychosocial development of children, school reform, equal educational opportunity, affirmative action, and educational assessment. 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 sociological, political, and educational developments on U.S. campuses. Emphasis on interrelated research, academic, social, and policy issues underling 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 studying learning. Topics include issues in socioeconomic context and discussion of some philosophical questions that challenge teaching profession. Letter grading.

C124. History of Higher Education. (5) Seminar, four hours. Exploration of major eras in history of higher education. Topics include issues concerning access, diversity, parental choice, cultural literacy, teacher empowerment, and role of popular media. Concurrently scheduled with course C207. Letter grading.

C125. Politics of Education. (5) Lecture, two hours; discussion, two hours. Political dimensions of education institutions as organizations. Relationships between institution institutionalization, and political socialization in society. Political theory as foundation for public policy analysis; interest groups in education policy formulation and implementation; and focus on Freirean pedagogy. Concurrently scheduled with course C207. P/NP or letter grading.

C126. Educational Anthropology. (5) Seminar, four hours. Research seminar designed to familiarize students with discipline of anthropology and subfield of anthropology and education. Examination of how culture influences research methods, with focus on theories of culture, cultural transmission and acquisition, and cultural production and reproduction for understanding schooling and its outcomes. Examination of research methodologies in an
127. Educational Psychology. (5) Lecture, two hours; discussion, two hours. Broad overview of educational psychology, exploration of relationship of teaching and learning; various perspectives as to how children learn; issues of teaching and learning that arise within school social class, ethnic background, gender, age, and level of ability. Letter grading.

128. Adolescent Psychosocial Development: Problems and Potentials. (5) Seminar, four hours. Research seminar providing overview of research literature on adolescent development and use of education environment as context for this development. Primary focus of adolescent development to be psychosocial in nature and relation of topics to understanding of one's identity, personal development, and relationships with other individuals and society at large. Study of psychological and education theories that apply to specific sub-samples of adolescents (e.g., women and adolescent boys) as well as those that are relevant to population of youth at large. Letter grading.

129. Education and Law. (5) Seminar, four hours. Research seminar providing overview of high-profile legal controversies that shape so many policy debates at both K-12 and higher education levels. Major areas of focus include campus safety, religion and schools, educational quality and law, broadband rights to equal educational opportunity, and Internet-related issues and concerns. Letter grading.

130. Race, Class, and Education Inequality in U.S. (5) Lecture, two hours; discussion, two hours. Focus extensively on understanding educational experiences of following groups in U.S.: African American, Asian American, American Indians/Alaska Natives, Mexican Americans, Chicanaos/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 some current issues and policy debates in education, including debate over school reform, bilingual education, and affirmative action. Letter grading.


132. Autism: Mind, Brain, and Education. (5) Lecture, two hours; discussion, two hours. Study of autism spectrum disorders (ASD) and related disabilities. Discussion of characteristics of disorder, effective interventions, and exploration of impact of children with ASD on families. Limited number of independent observations of individuals in community required. Letter grading.

133. Topics in Child Development and Social Policies. (5) Seminar, four hours. Research seminar designed to gain basic understanding of ways in which public policies are established and implemented, learn about policy landscape in several major domains of child and family life in U.S. and other countries. Students will engage in research on children's cognitive and social development to evaluate and understand effects of social and economic policies. Letter grading.

134. Educational Leadership, Organizational Theories, and Practice. (5-5) Seminar, four hours. Designed to engage students interested in developing understanding and appreciation for breadth of leadership models/theories in education, including traditional, entrepreneurial, behavioral, and contemporary relationship-based models. Analysis of effectiveness of organizations and/or policies in terms of educational leadership, and development of personal leadership profile in context of alternative models of leadership relevant to education. Letter grading.

135. Introduction to Educational Inquiry. (5) Seminar, five hours. Limited to juniors/seniors. Introduction to educational inquiry, with special attention to different ways of conducting research in field of education. Focus on different ways authors conceptualize/ investigate inequality, Development of culminating project. Letter grading.

136. Working Families and Educational Inequalities in Urban Schools. (4) Same as Labor and Work-Place Studies M136 Seminar, three hours; fieldwork, five hours. Focus on relationship between working-class and poor communities and inequities in American urban schools. Drawing on multiple theoretical frameworks that address issues of race, ethnicity, and immigration, schools viewed as sites where inequalities are produced and sustained. Review of history of exclusionary treatment and divergent conceptual frames that educational researchers have used to understand nature 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 through community service learning opportunity to examine systems, structures, and everyday practices that sustain and reproduce inequality and policies that intend to remedy it in urban schools. Opportunity to investigate issues of working-class families and inequalities as they relate to students' own communities and experiences. P/NP or letter grading.

137. Public Policy in Higher Education. (5) Lecture, four hours. Introduction to range of contemporary and ongoing higher education public policy issues, and conceptual and theoretical frameworks typically used to understand the influence of public policy language, with focus on national, state, and institutional policy perspectives. Letter grading.

138. Critical Pedagogy and Cultural Studies in Urban Education. (5) Lecture, two hours; discussion, two hours. Consideration of potential of critical pedagogy and empirical work in critical pedagogy and cultural studies to inform, confront, and transform many challenges faced in urban education today. Study of theory and pedagogy for educators such as Paulo Freire, Peter McLaren, and others. Letter grading.


142. Reflections of Education Abroad Program Study. (4) Seminar, two hours; activity, two hours. Designed to provide returned Education Abroad Program (EAP) students with structured opportunity to deepen their reflection and understanding through contact with literature, academic articles, and speakers. Provides EAP reciprocity students with opportunity to analyze their transition to UCLA and allows both returned and regular students to learn through service to EAP. Letter grading.

143. Understanding Pathways to College. (4) Lecture, two hours; discussion, two hours. Examination of inequality across K-12 and higher education to understand how college admissions are stratified across racial and class lines. Roles of school personnel, higher education admissions, families, and students in promoting equal educational opportunity. Course is good preparation for students interested in working in UCLA programs such as Early Academic Outreach Programs that serve students in Los Angeles area schools. Letter grading.

144. Advanced Undergraduate Research Seminar. (4) Seminar, four hours. Limited to juniors/seniors. Advanced independent skills course of joint interest to professor and student. Research topics deal with K-12 American educational experience, with specific emphases on diversity, assessment, technology, at-risk, geographical space, and psychosocial development of children. Letter grading.

145A. Internships and Volunteer summer in Public Education. (4) Seminar, four hours. Limited to juniors/seniors. Professor 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 development of firm understanding of concept of conflict resolution through weekly reflective journals, discussion through biweekly meetings, and final journal entry. Application of critical thinking, review of literature from earlier coursework and reflection on student field experiences to deepen understanding of violence, its causes, and what schools can do to mitigate it. Letter grading.

146A. Research Apprenticeship in Peer Counseling. (5) Seminar, four hours. Required prerequisite: course 146A. Limited to juniors/seniors. Highly interactive, student-centered course designed to provide hands-on experience in academic peer advising and leadership and understanding of underlying theories, principles, and related issues. Students advise their peers in Education Studies minor courses and build community among those students. Letter grading.

147. Research Apprenticeship in Peer Advising and Leadership. (4) Seminar, four hours. Course prerequisite: course 146A. Limited to juniors/seniors. Highly interactive, student-centered course designed to provide hands-on experience in academic peer advising and leadership and understanding of underlying theories, principles, and related issues. Students advise their peers in Education Studies minor courses and build community among those students. Letter grading.

148. 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 and society at large. Focus on curricular, legal, and policy issues for those who want to learn principles of dialogue and mediation, as alternatives to violence, and practice how to apply them in educational settings. In Progress (M145A) and letter (M145B) grading.

149. Research Apprenticeship in Peer Counseling. (5) Seminar, four hours. Limited to juniors/seniors. Designed to provide hands-on experience in academic peer advising and leadership and understanding of underlying theories, principles, and related issues. Students advise their peers in Education Studies minor courses and build community among those students. Letter grading.

150. Understanding Pathways to College. (4) Lecture, two hours; laboratory, two hours. Exploration of various types of charter schools as well as alternative methods for social change. Evaluation of in-depth social entrepreneurship, its theoretical constructs, and its application to charter schools as social enterprises. Letter grading.
150. Student Development in Theory and Practice. (2) Seminar, two hours. Introduction to field of student affairs and contribution of student development theory. General overview of various student affairs functions and programs, along with key theories that inform practice. P/NP grading.

151. Student Development in Theory and Practice: Strategic Career Decision Making. (2) Seminar, two hours. Importance of making informed career decisions and understanding how cultural and family values play a role in career development process. Through interactive lessons and projects, development of strategies to anticipate and effectively deal with lifelong career challenges such as work/life balance, career fulfillment, and career transitions. P/NP 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 potential solutions to multi-layered theoretical, empirical, and practical implementation of global citizenship education. Examination of how global citizenship education and education for sustainable development are beginning to impact lives, actions, policies, and practices of educators, students, non-government organizations, governments, multinational organizations, and other key players in different contexts. Examination of how global citizenship education impacts our worldview, teaching, and learning as we strive to envision work toward more just and sustainable society. Letter grading.

C160. Theory and Practice of Intergroup Dialogue: Building Facilitation Skills. (4) Seminar, four hours. Topics include ideology of intergroup relations, intercultural and dialogic communication theories, methods for reconciling and bridging differences in schools and communities, research and evaluation of intergroup dialogues and other educational 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 inequities, 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 of relationship between scholarly policy analysis and actual workings of policy systems. Selected topics include achievement standards and assessment, school finance, equal access to education, and school reform. Letter grading.

CM163. 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 narratives, history, and practices and art and activism, and other forms of agency 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 opportunity in our society. Letter grading.

166. Language, Literacy, and Academic Development: Educational Considerations for School-Age Multilingual and English Language Learner Students. (5) Lecture, two hours; discussion, one hour. Fieldwork, four hours. Enforced corequisite: course 192A. Training and supervised practicum for undergraduate students interested in raising their academic achievement and that of high school and middle school students. Letter grading.

170A. Experiential Learning: Community-Based Outreach Program. (4) Lecture, four hours. Enforced corequisite: course 192A. Training and supervised practicum for undergraduate students interested in connecting them to instructional activities for students in various learning settings, including libraries and schools. P/NP grading.

170B. Experiential Learning: America Reads. (2) Fieldwork, four hours. Enforced corequisite: course 192B. TB test required prior to first day of instruction. Training and supervised practicum for undergraduate students interested in connecting them to instructional activities for K-3 students at America Reads sites. Letter grading.

170C. Experiential Learning in Secondary Classrooms: Health. (4) Lecture, one hour; fieldwork, four hours. Training and supervised practicum for undergraduate students interested in connecting them to instructional activities for students in second classrooms, including working with 8th- through 12th-grade students in school sites. Focus on health topics from California Physical Education and Teacher Credentialing. Experts in field lead discussion of issues related to physical and mental health of students and educators, issues of bullying, and learning theories and practices that engage diverse groups of students in class. Active engagement in reflection on issues in schools in which students work. Letter grading.

CM178. Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Gender Studies CM178B.) Lecture, two hours. Enforced 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 to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM278L. Letter grading.

CM178L. Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Gender Studies CM178B.) Laboratory, two hours. Enforced corequisite: course CM178B. Hands-on production experience as integral component of course CM178. Concurrently scheduled with course CM278L. Letter grading.

M182A. Language, Literacy, and Human Development Ethnography. (2) (Same as African American Studies M182A.) Fieldwork, three hours. Enforced corequisite: course M194A. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M182B. Culture, Gender, and Human Development Ethnography. (2) (Same as African American Studies M182B.) Fieldwork, three hours. Enforced corequisite: course M194B. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M183A. Language, Literacy, and Human Development Ethnography. (3) (Same as African American Studies M183A.) Fieldwork, six hours. Enforced corequisite: course M194A. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M183B. Culture, Gender, and Human Development Ethnography. (3) (Same as African American Studies M183B.) Fieldwork, six hours. Enforced corequisite: course M194B. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

184. Variable Topics in Teaching and Learning. (2) Lecture, one hour. Variable topics course, with emphasis on theories of teaching and learning, connecting them to instructional activities for students in various learning settings, including libraries and schools. P/NP or letter grading.

185. Community Service Learning for Academic Achievement. (4) Lecture, one hour; fieldwork, six hours. Must be taken prior to course 192A. Emphasis on cognitive learning and motivation theories and their relevance to strategies for developing curricular instructional techniques 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 understandings of educational and learning processes, policies, political, and institutional development. Focusing on a culminating project. Consult Schedule of Classes for topics and instructors. May be applied as core credit for Education Studies minor students. May be repeated three times for credit. 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 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: 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.

Letter grading.
Graduate Courses

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. S/U or 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 nonexperimental and quasi-experimental quantitative data. S/U or letter grading.


M201C. History of American Education. (4) Same as History M264.) Discussion, three hours. History 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.


203. Educational Administration. (4) Seminar, four hours. Research seminar designed to familiarize students with theories and concepts of education management and administration. S/U or letter grading.

204A. Introduction to Education and Social Sciences. (4) Lecture, four hours. Interdisciplinary course intended to introduce students to study of educational issues, texts, and movements of thought through social sciences and comparative perspectives. S/U or letter grading.

204B. Introduction to Comparative Education. (4) Lecture, four hours. Examination of conceptual and methodological questions underlying comparative education. Particular attention to development of field and to styles of social analysis that may be applied to comparative and cross-national studies in education. S/U or letter grading.

204C. Education and National Development. (4) Lecture, four hours. Designed for graduate students. Analysis of various social sciences perspectives and methodologies (including modernization, dependency, Marxism, neo-Marxist, liberation theology, and world-system theories of change and development) and changing notions of role of education in development of less-industrialized countries of world. S/U or letter grading.

204D. Minority Education in Cross-Cultural Perspective. (4) Lecture, four hours. Historical and contemporary analyses of educational policies with regard to ethnic, religious, and linguistic minorities through selected national and international case studies. Introduction to cross-cultural education in representative countries in relation to social, political, and economic systems. S/U or letter grading.

204F. Nonformal Education in Comparative Perspective. (4) [Lecture, four hours. Comparative and international study of organized and systematic educational activity for children, youth, and adults carried on outside of schools. Types of programs include, among others, community development, youth organizations, skills training, literacy, and extension programs. S/U or letter grading.]

205. Computers in Educational Process. (4) [Lecture, four hours. Introduction to theory, experimentation, evaluation, and future of computer systems in education, with emphasis on computer-assisted instruction (CAI), and use of computers to teach programmed and fostering development of writing, computational, and thinking skills. S/U or letter grading.]

206A. Philosophy of Education: Introduction. (4) Lecture, four hours. Systematic introduction to field, indicating ways in which philosophy serves to elucidate educational aims, content, methods, and values. S/U or letter grading.

207. Politics of Education. (5) Lecture, two hours; discussion, two hours. Political dimensions of education institutions as organizations. Relationships between education and political institutions, including desegregation, decentralization, equality of educational opportunity, structure of educational organization, teacher/student relationships, reform in education at elementary, secondary, postsecondary levels. S/U or letter grading.

208A. Perspectives on Sociology of Education. (4) Lecture, four hours. Sociopolitical perspectives on current issues in educational policy and practice, including desegregation, decentralization, equality of educational opportunity, structure of educational organization, teacher/student relationships, reform in education at elementary, secondary, postsecondary levels. S/U or letter grading.

208B. (Im)migrant Youth, Ethnicity, and Education. (4) Seminar, four hours. Exploration of experiences of immigrant youth in U.S. schools, with focus on language, culture, and educational equity in urban settings. Letter grading.

209C. Explanation in Social Sciences and Educational Research. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Overview of basic strategies and forms of explanation relevant to inquiry in education from vantage point of various social and behavioral sciences disciplines. S/U or letter grading.

210A. History of Higher Education. (4) Seminar, four hours. Exploration of major eras in history of higher education. Topics include issues concerning access, diversity, parental choice, cultural literacy, teacher empowerment, and role of popular media. Concurrency scheduled with course C124. S/U or letter grading.

210B. Research and Evaluation in Higher Education. (4) Lecture, four hours. Development of conceptual and practical understanding of research and evaluation in higher education. Topics include basic statistics, survey design, data analysis, assessment issues, and research proposal writing. Letter grading.


211C. Advanced Item Response Theory. (4) [Lecture, four hours. Requisites: course 211A or 211B or Psychology 255A, Psychology 255B. Review of standard item response theory models, multidimensional models, multiple group models and models with co-varying items and factors. Emphasis on computational perspectives, differential item functioning analysis, testing model fit, linking and scale alignment, computerized adaptive testing. S/U or letter grading.]

212A. Learning and Education. (4) Lecture, four hours. Models of learning, modeling, reinforcement, motivation, encoding, memory, transfer, individual differences, and instruction. S/U or letter grading.

212B. Motivation and Affect in Educative Process. (4) Lecture, four hours. Focus on process and outcomes of educational and social processes on motivational and emotional levels. S/U or letter grading.

213C. Group Counseling Theory and Process. (4) Lecture, three hours; discussion, one hour. Requisite: course 414A. Group productivity, leadership in groups, social perception, attitude formation, and effect of behavior changes in individuals and groups. Evaluation of social, psychological, and educational principles related to therapeutic experiences of individuals in small groups. Letter grading.

213D. Assessment in Counseling and Student Affairs. (4) Lecture, four hours. Overview of assessment issues and methods and student affairs activities. Emphasis on concepts of testing and measurement, applications of measurement theory, and contemporary issues that are significant in influencing assessment in student affairs programs. 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.

214C. American Professoriate: Faculty Status, Role, and Performance. (4) Discussion, three hours. Historical and contemporary issues involving American professoriate. Topics include employment, academic culture, teaching and research, reward structure, faculty development. Letter grading.


214F. Student Problems: Social Context. (4) [Lecture, four hours. Designed to assist students in understanding social configuration of social forces that lead to student dysfunction. A number of contemporary social problems that are of concern to school counselors, educators in general, and behavioral scientists. S/U or letter grading.]

215B. 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 motivational concerns such as persistence and intensity of 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; development in context of current research 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.

217D. Cognitive Development and Education. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Critical review of theories and research in cognitive development, with focus on work of Piaget and Vygotsky, and relation of this work to instructional and educational practice. S/U or letter grading.

217E. Emerging into Adulthood. (4) Seminar, four hours. Examination of theories and research related to transition from adolescence to adulthood, issues of intimacy, gender, and immigration status in shaping development. Topics include historical and cross-cultural comparisons of emerging adulthood; ethnic, racial, gender identity; family, peer and marital expectations; college opportunities and experiences; entering workforce; alternative pathways (incarceration and military); and civic engagement. Letter grading.

217F. Adolescent Development. (4) [Same as Psychology M220.] 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 peer development, changes in parent/adolescent relationships, role of peers, identity development, high-risk behaviors, stress and coping, and school adjustment. Letter grading.


218. 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. Coverage of special topics not 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.

220B. Computer Analyses of Empirical Data in Education. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 209C (section 1), 230A. Designed for advanced graduate conceptual and methodological 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, naturalistic, qualitative research design covered in second half of course. Letter grading.

222B. Participant-Observation Field Methods. (4) Lecture, two hours; discussion, two hours. Requires: course 222A. First of two courses on participant-observation field methods. Key skills (e.g., observation, recording, interviewing, role management, data storage) learned through classroom lectures and simulations, and by conducting actual field-based research project. Letter grading.

222C. Qualitative Data Reduction and Analysis. (4) Lecture, two hours; discussion, two hours. Requires: course 222B. 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, four hours. Special topics course on some field or aspect of qualitative inquiry. Topics may include classroom ethnography, advanced ethnographic writing and/or multimedia design, discourse analysis, and micrography of social interaction. S/U or letter grading.

223. Procedural Issues in Evaluation. (4) Lecture, four hours. Assessment methodologies appropriate for evaluation problems. Writing evaluation proposals, developing program monitoring procedures, selecting and appropriate evaluation design strategies, coping with ethical considerations in evaluation, framing decision context, and reporting evaluation results. Letter grading.

224. Problems and Issues in Bilingual and Multicultural Education. (4) Lecture, two hours; discussion, two hours. Introduction to development and implementation of multicultural programs in U.S. Analysis of program goals, models, typologies, and effectiveness. S/U or letter grading.

225A. Issues in Education of Exceptional Individuals. (4) Lecture, four hours. Designed for graduate students. Analysis of major research regarding contemporary trends, issues, 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 current research and applied issues in special education. S/U or letter grading.

226. Seminar: Special Topics in Writing, Rhetoric, and Educational Methodology. (4) Seminar, four hours. Special topics seminar on writing in education that could focus on history of writing about education, social and political dimensions of it, its variation by discipline, and its uses in professional and public contexts. Letter grading.

227A. Research on Learning Characteristics of Exceptional Individuals. (4) Lecture, four hours. Requires: course 225B. Overview of research and theory regarding learning characteristics of exceptional individuals and implications of this work to educational practice. S/U or letter grading.


229. Seminar: Special Topics in Urban Schooling. (4) Seminar, four hours. Research on selected topics in subjects of administration, organizational functioning of schools, and teaching studies and on conceptualization of hypotheses and research programs on division topics and issues. Letter grading.

CM239B. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Agency. (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 agency engaging school-to-prison pipeline. Concurrently scheduled with course CM163. S/U or letter grading.


230B. Linear Statistical Models in Social Science Research: Multiple Regression Analysis. (4) Lecture, four hours. Requires: course 230A or passing score on screening examination. Solid and comprehensive training in regression-based methods for analyzing quantitative social science data. Letter grading.


231D. Advanced Quantitative Models in Nonexperimental Research: Multivariate Analysis. (4) Lecture, four hours. Requires: 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. Requires: courses 231A, M231B. Extends both analytical and methodological aspects of 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.


233. Professional Writing in Education. (4) Lecture, four hours. Intended to assist in professional development as writers, with focus on style and organization, scholarly genres, modes of discourse, and broader issues of conceptualization and method. Letter grading.

234. Critical Perspectives on Economic Approach to Education. (4) Seminar, four hours. Introduces students to concepts and principles in economics of education using critical perspective. Overview of evolving relationship between education and economics, including growing use of economic policy tool and increased role of economic principles in internal functioning of educational systems. S/U or letter grading.

235. Comparative Political Economy of Education. (4) Lecture, four hours. Intended to assist in professional development as writers, with focus on style and organization, scholarly genres, modes of discourse, and broader issues of conceptualization and method. Letter grading.


237. Law and Urban Education. (4) Lecture, four hours. Examination of recent legal controversies that may impact ability of urban educators to meet needs of students and increasing pressures to accommodate growing diversity. Special emphasis on equity-related issues as desegregation, school finance, standardized testing, and rights of language minority students. Letter grading.

230. Organization and Governance of Educational Systems. (4) Lecture, four hours. Academic organizations, precollege and postsecondary, are most appropriately studied as complex, professionalized organizations. Emphasis on characteristics of educational institutions and systems as organizations: environmental relations, governance structures, processes, and patterns of decision making and policymaking. S/U or letter grading.

240. Immigrant Children and Education. (4) Seminar, four hours. Examination of immigrant child and youth experience, with primary focus on educational outcomes. Topics include historical changes in experiences of immigrant youth, dynamics of immigrant families, cultural, ethnic, and socioeconomic status-related influences in immigrant youth's adjustment, and school-family connections. Letter grading.

241. Research Methodology in School Administration. (4) Lecture, four hours. Examination of research problems and strategies in school administration. S/U or letter grading.


G244. Theory and Practice of Intergroup Dialogue: Building Facilitation Skills. (4) Seminar, four hours. Topics include theory and practice of intergroup situations, intercultural and dialogic communication theories, methods for reconciling and bridging differences in schools and communities, research and evaluation of intergroup dialogues and other educational methods for improving intergroup relations, and core competencies for planning, delivering, and evaluating intergroup dialogues. Learners develop practical skills in 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 C160. Letter grading.


246A. Decision Analysis and Advanced Computer Methods for Educational Policy and Planning. (4) Seminar, four hours. How information technology and decision analysis impact K-12 schooling, higher education, and technical training/workplace settings. With research paper, oral presentation, and two research briefs, students can pursue decision analysis areas of special interest to their professional and career objectives. S/U or letter grading.

247. Special Topics: Law and Educational Policy. (4) Lecture, four hours. Policy-based inquiry with focus on specific law-related debates that inevitably influence both K-12 and higher education communities. Identification of issues that have been successfully employed by those who have sought to use law to shape educational policy. Letter grading.

248. Seminar: Special Topics in Child Development and Education. (4) Seminar, four hours. Content varies; limits of investigation set by individual instructor. S/U or letter grading.

250A. Fundamentals of U.S. Higher Education System. (4) Lecture, four hours. Designed for graduate students. Two-course sequence designed to orient new students to current ideas and literature that constitute this division, with emphasis on underlying social and political issues that shape higher education and organizational change. Letter grading.

250B. Organizational Analysis of Higher Education. (4) Seminar, four hours. Designed for graduate students. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute this division, with emphasis on underlying social and political issues that shape higher education and organizational change. Letter grading.

250C. Theoretical Frameworks of Higher Education. (4) Lecture, four hours. Designed for graduate students. Overview of various social sciences theories used to build and analyze systems of contemporary higher education. Explanation of how theory and methodology affect research design and framing of research questions in studies of higher education. Letter grading.

252A. Seminar: Educational Organizations. (4) Seminar, four hours. Requisite: course 208A. S/U or letter grading.

252B. Educational Enterprise. (4) Lecture, four hours; discussion, two hours; prerequisite course 252A. Limited to Educational Leadership Program students. Use of structural, human resource, political, and symbolic frames to study K-16 education, with focus on educational environments, organizations, and curriculum and instruction. Letter grading.

M253A. Seminar: Current Problems in Comparative Education. (4) (Same as Gender Studies M253A.) Seminar, four hours. Examination of some of most influential theoretical and grant projects, international alumni, distance learning/massive open online courses (MOOCs)/hybrid models. Letter grading.


257. Higher Education in Comparative and Cultural Contexts. (4) Seminar, four hours. Examination of how racial diversity and its related dynamics have transformed and at same time been resisted by institutions of higher education, with focus specifically on student experiences, curricula, institutional climate, educational policies, and administrative practices. Letter grading.

258. 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.

262. Seminar: Reading. (4) Seminar, four hours. S/U or letter grading.

263A. Seminar: Research in Bilingual/Multicultural Education. (4) Seminar, four hours. S/U or letter grading.

263B. Seminar: Higher Education. (4) Seminar, four hours. May be repeated for credit. S/U or letter grading.

264. 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 of both issues and policy process. Review 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. (4) (Same as 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 their 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, including textualist, feminist, deconstruction, reader reception, and semiotics, and to core ideas of some leading the-
269. Representations of Education in Cinema. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Exploration of ways in which we draw particular 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 administrators and curriculum in popular films about high school and adolescents). Letter grading.

270. Introduction to Cultural Studies. (4) Lecture, four hours. Investigation of current trends in cultural studies and the methodologies 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 as goal of cultural studies. Letter grading.

271A. Proseminar: Educational Psychology. (2) Seminar, two hours. Introduction to variety of research issues in field of educational psychology, including topics related to human development, learning and instruction, cognition, and special education, and to different methodological approaches used to study them. S/U grading.

272. Case Study Research in Education Policy and Practice. (4) Discussion, four hours. Use of case study methodology in research, providing 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 Systems. (4) Lecture, two hours; discussion, two hours. Overview of 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 delivering high quality education. Letter grading.

273B. Social Foundations of Education. (4) Seminar, four hours. Introduction to literature on multiculturalism and teachings in diverse social, cultural, and economic contexts. Exploration 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 conventional research assumptions raised by multicultural and postcolonial science and technology studies. Focus on sciences and technologies emerging and existing after World War II. Focus on sciences and technologies in third-world development projects, comparative ethno-sciences, 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 sociopsychological theories of race, racial attitudes, and conflict to historical policy analysis. Letter grading.

276. Contemporary Theories of Writing. (4) Lecture, four hours. Review of current theories of writing and literacy research and examination of relationships among writing and 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.


278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) Seminar, three hours. Corequisite: course CM278L. Use of range of pedagogical approaches to theory and practice of critical media literacy that recognizes the role 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 seminar 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. (4) Seminar, four hours. Focus on research and clinical problems in special education. Introduction to range of clinical services and research strategies. Exploration 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, two hours; discussion, two hours. Knowledge of changing dynamics of college access at 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 fruitfully about two issues: (1) inevitability of nonneutral procedures, that result from life in a liberal state that must be committed to value-neutrality and (2) challenges that multicultural and postcolonial social theory have raised to conventional research theories and technologies. Letter grading.

284. Critical Theory in Education: Power, Politics, and Liberation. (4) Lecture, four hours. Designed for graduate students. Introduction to major themes, issues, and methodologies within what has come to be known as “critical and educational tradition,” including some major theoretical writings in liberal, neo-Marxist, left liberal/postmodernist, and Marxist 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 campus safety and privacy, students’ rights, freedom of speech, student and faculty due process issues, and concerns, religion in schools, cyberbullying, and accountability for off-campus behavior. Examination of access 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 Success 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.

286. Research on Language Issues in Education. (4) Seminar, four hours. Reading of language(s) in formal and informal education, including study 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.

287. 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. Assignment of common readings related to these topics; students have opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

M294A-M294B. Immigration, Race, Change, and Education in 21st-Century Metropolis. (4-4) (Same as Political Science M287A-M287B, Public Policy M289A-M289B, and Sociology M290A-M290B.) Seminar on paradoxes of metropolitan American society and institutions at beginning of 21st century. Consideration of best available information on patterns of settlement, changing functions of urban space and institutions, and discriminatory trends linked to urban structure in society facing unprecedented demographic change that will end primarily European domination of our society by mid-century, creating democracy with no racial or ethnic majority. How this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, bunched organization of workplace and dramatic decline of industrial employment in advanced nations, not only greatly raise stakes on creating equal opportunity but also cut off what were previously extremely important parts of intergenerational mobility. In Progress (M289A) and letter (M289B) grading.

290. Educational Policy Analysis: Research, Theory, 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.

M294A-M294B. High School Reform: Persisting Failure, Urgent Challenges. (1 to 8 each) (Same as Law M243A-M243B.) Seminar, four hours. Course M294A is enforced prerequisite to M294B. Research seminars with focus on what is probably most serious and neglected problem in American educational reform over last half century. Historically, education in preschool, gains in achievement in early grades have been produced, and very well-regarded system of higher education has been established—but reform of high school has lagged. Exploration of institutional and policy roots of these problems and assessment of available research on key dimensions to help students launch original research studies in one related area. 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 1964); Chilean Experience, where he published Education as Power, politics, and Pedagogy of Oppressed, as well as other lesser-known works, while also devoting most of this period to empirical research in literacy training (1964 to 1989); his work at with students of color, education of the WCC in Geneva (1970 to 1980), including his consulting with postcolonial revolutionary governments in Africa; his work in Brazil and his work as Secretary of Education in São Paulo (1989 to 1992), and his global travels from 1980 until his death in 1997. Focus on work left incomplete before his death (including eco-pedagogy and citizen’s schools), and by implication his analyses, critique, and impact of his methodology of generative word, and comparisons with other theoretical referents. Letter grading.
310. Professional Communication for Graduate Students in Education. (2) Lecture, two hours. Writing workshop on students’ papers in progress to ensure professional standards. Analysis and group discussion of rhetorical and stylistic principles. May be repeated once. S/U grading.

311. 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.


315B. Elementary Literacy Methods. (3) Seminar, three hours. Theoretical principles and pedagogical strategies necessary for developing and maintaining balanced comprehensive literacy program for elementary school students. Content includes children's ability to learn to read, write, and use language. Letter grading.


318A. Integrated Methods for Elementary Teachers. (3) Lecture, three hours. Examination and development of instructional principles and practices of instructional methods for teaching K-4 content, with emphasis on interdisciplinary approach that integrates content areas. Aligned with California state frameworks and California content standards for grades K-12 that 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 various interests of diverse students. Letter grading.

319. Mathematics Methods. (3) Lecture, three hours. Details of children’s mathematics thinking and use of that information as way to ground learning about teaching of mathematics. Letter grading.

320A-320B-320C. Secondary Content and Literacy Methods in Ethnic Studies. (3–3–3) Lecture, three hours. Examination and development of instructional principles and practices of instructional methods for teaching content in grades 7–12. Emphasis on interdisciplinarian approach that integrates 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 various interests of diverse students. Letter grading.

321A. Secondary Content and Literacy Methods in Ethnic Studies. (Formerly numbered 321.) Lecture, three hours. Examination and development of instructional programs, 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 K-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 history in urban classrooms.

321B. Ethnic Studies Curriculum Development. (3) Lecture, three hours. Examination and development of theoretical frameworks around curriculum development for 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 K-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, gender/sexuality studies, and how to develop curriculum focused on local history 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, including sociocultural approaches 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 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, 40 hours. Students are employed by local school districts to teach as residents in designated schools. Coverage includes socially, 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. (2–2–2) 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 elementary and secondary schools. Examination of different methods of computer literacy and teaching subject matter. Students may conduct ethno- graphy 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, including assistant principal 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 Psychology (HDP) PhD students. Primary purpose is to expose students to current psychological and cognitive issues and analyses of psychological and cognitive topics by presenting current trends in research and development within the field of 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 issues in applied human development and provides framework to facilitate research-based training within and among UCLA and university 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 behave as they do. Application to special circumstances of formal organizations 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 milestoners, and recent brain development research. Topics include family engagement, inclusion, risk contexts, developmentally appropriate practices, and assessment. S/U or letter grading.

404. Early Childhood Curriculum Approaches. (3) Lecture, three hours. Examination and development of curriculum models and methodological approaches used in early childhood education, with focus on use of developmentally appropriate practices, play- and relationship-based approaches, inclusion, families, English language learners, and anti-bias curricula. S/U or letter grading.

405A-405B-405C. Teaching in Urban Schools. (2–2–2) 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 lived experiences of how students see their world and, in particular, teaching, learning, students, their families, and their neighborhood communities. Letter grading.

405C. Exploring Connections. (2) Seminar, two hours. Limited to credential program students. Exploration of interrelationships among families, communities, and school systems, engaging 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 cultures, 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.


408B–408U. Language and Culture. (2 each) Lecture, two hours. Offered and required for Bilingual Authorization Programs. Focus on language of emphasis for bilingual teachers. Practice in listening, reading, speaking, and writing competencies required for bilingual classrooms. Assessment made at end of course to determine proficiency of Bilingual Authorization Program candidates. Letter grading.

410B. Issues in Higher Education and K-12. (4–4) Lecture, four hours. Two-course sequence providing overview of higher education systems. Letter grading. 410A. Described 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 schooling, including re- structuring and reform, standards, access and accommodation, and new technologies. Emphasis on both theory and practice.


412. Why Research Matters to Student Affairs Practice. (3 or 4) Lecture, three hours. How do researchers study impact of college on students? How can those doing research be effective in communicating research to student affairs practice? Introduction to world of college impact research and orientation to major ongoing studies conducted at UCLA and beyond. Students interact with researchers and see how research results might be utilized to improve work of student affairs. Letter grading.

413A. Language and Culture. (2 to 4) Lecture, two hours. Limited to credential program students. Offered and required for Bilingual Authorization Programs. Focus on language of emphasis for bilingual teachers. Practice in listening, reading, speaking, and writing competencies required for bilingual classrooms. Assessment made at end of course to determine proficiency of Bilingual Authorization Program candidates. Letter grading.

413B. Methodology for Primary Language Instruction. (2 to 4) Lecture, three hours. Offered and required for Bilingual Authorization Programs. Consideration of models for developing cultural and language skills of home speakers of language of emphasis; focus on use of activities to develop student ability to use language for real-world and academic purposes in culturally appropriate ways. Consideration of models for teaching academic content in primary language for delivery of core curriculum to bilingual students. Letter grading.

413C. Culture of Emphasis. (2 to 4) Lecture, three hours. Offered and required for Bilingual Authorization Programs. Conducted in language of emphasis. Discussion of commonalities of cultures of emphasis in its home country or countries; major historical periods and events; values, belief systems, and expectations; migration and immigration; historical and contemporary demography. 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 theoretically and with individual students. 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 practices in higher education. 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 program issues and trends in college student counseling. Letter grading.
414D. Career Development and Interventions in Colleges. (4) Lecture, two 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 interventions for assisting them. 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 counseling psychologists for assessing individuals in multicultural society. Emphasis on standardized cognitive assessment instruments and specialized techniques for diagnosis, evaluation, and development of counseling strategies for at-risk populations. S/U or 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 psychological 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 planning, along with pedagogical and logical dimensions of program development. Letter grading.

417. Program Evaluation and Assessment in Student Affairs. (4) Lecture, two hours; discussion, two hours. Introduction to assessment and program evaluation in context of student affairs and higher education. Examination of usefulness and appropriateness of various program evaluation methodologies and theories of assessment practice. 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 effect of behavior changes in individuals and groups. Integrated social, psychological, sociopolitical, 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. 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 scholars and 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. (1 to 4) Lecture from development series. Examination of child care programs and research in early childhood education, including review of relation of research in developmental psychology to educational 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 present system of education. Consideration of historical development and changing functions of schooling in American society; school organization; schooling alternatives; problems in 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 integrated programs; critical review of literature on how to organize a social studies curriculum. 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 basis for bilingual programs; theories of learning, instruction and 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. (2–5) Lecture, two hours; discussion, two hours. Principles and practice of program planning, as well as to assessment and program review. Development of knowledge of and skill in planning educational and training programs that provide support for learning within context of student affairs, as well as knowledge of skill in developing, implementing, and analyzing assessment projects within student affairs context. Study of basic theoretical perspectives underlying program design implements and program review/assessment and application by developing, implementing, and assessing effectiveness of one program. In Progress (426A) and letter (426B) grading.

431A. Administration in Higher Education. (4) Lecture, four hours. Overview of college and university administration and introduction to policy research and analysis in postsecondary institutions. 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.


432. 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 policy and 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 models, with considerable attention to role of 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. Letter grading.


442B. Legal Aspects of Educational Management and Practice. (4) Lecture, four hours. Examination of structures and kinds of laws governing educational systems in U.S.; constitutional dimensions of church/state relations; employees’ civil rights and legal aspects of hiring, firing, and nondiscrimination; 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 contexts 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 Studies. (1 to 4) Seminar, one to four hours. Letter grading.


448B. Urban Leadership Laboratory. (4) Laboratory, four hours. Analysis of and 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. In year three of Educational Leadership Program to help students with their communication and leadership capacities. S/U or letter 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, physical, 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 curricular and instruction.

453. Technology in Education: Learning and Leading with Technology. (2) Lecture, two hours; 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. Students assess their collaboration abilities. Exploration of qualitative and quantitative data gathering methods and analyses. Letter grading.

454A. 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. Hitting of team processes and team roles 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. Students, as individual students in Educational Leadership Program. Intended to assist students’ professional development as writers, addressing style and organization, scholarly genres, modes of discourse, 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 anthropology and ethnography of variation of approaches to organizational change and ways to sustain change. Letter grading.

457. Student Development across K-16 Spectrum. (4) Discussion, four hours. Limited to Educational Leaders. Theory and research on students’ development applicable to K-12 and postsecondary education. 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. Topics and instructors vary each term. Recent emphases: evaluation utilization and cost-effectiveness evaluation. S/U or letter grading.

462. Seminar: Community College. (4) Seminar, four hours. Topics include problems and practices in community college formation, instruction, student flow, administration. S/U or letter grading.

466. Critical Media Literacy: Teaching Youth to Critically Read and Create Media. (4) Lecture, four hours. Preparation for teachers to teach K-12 students to critically think about relationships with media by critically questioning media representations and creating their own alternative media messages. Critical media literacy combines theoretical foundations of cultural studies with practical applications by 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 messages in their own classrooms. Analysis and creation 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.

470B. Seminar: Educational Government. (4) Seminar, four hours S/U or letter grading.


482A. Instructional Strategies in Urban Education: Technology. (4) Lecture, four hours. Emphasis on instructional practices that integrate use of technology in urban public schools. Study and analysis of comprehensive specialized use of appropriate computer-based technology to facilitate teaching and learning process, and debriefing of field experiences integrating technology 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 programs for development of academic language, comprehension, and knowledge in core academic curriculum. Letter grading.

482C. Instructional Strategies in Urban Education: Special Populations. (4) Lecture, four hours. Emphasis on strategies that support special populations in urban public schools. Continuation of study of statutory provisions, curriculum, instruction, and assessment issues related to teaching students with disabilities, students who are at risk, and students who are gifted and talented. Research opportunities, additional methods in content areas for advanced study, and preparation of MEd inquiry included. 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 curriculums. Topics include implementing subject-centered arts instruction, instruction connecting arts disciplines, and instruction connecting arts and other core disciplines. Advanced explorations of arts instruction in urban classrooms, as well as content and emotional scaffolding strategies and reflection strategies to make learning accessible, engaging, and relevant. Letter grading.

485. Advanced Study of Health Education. (1) Lecture, four hours. Student meetings with instructors, field specialists, and team cohorts to study and analyze delivery of comprehensive support for physical, cognitive, emotional, and social well-being of students in K-12 classrooms. Topics include prevention and intervention 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 academic instruction, including research and active participation in adversary process. Focus on research and practice in instruction, role playing, interaction process analysis, and feedback instruments. Practical emphasis on social sciences and humanities instruction, 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 systematic analysis of, and development of, the ability to apply and evaluate alternative instructional strategies. S/U or letter grading.


495A-495B. Resident Seminars. (4-4) Seminar, two hours; site-based fieldwork, two hours. Students meet in individual sessions with instructors and other field support faculty and in team and cluster cohorts for university-school partnership, in addition to regular seminars to debrief field experiences and continue study of curriculum, instruction, and assessment issues. Research opportunities, additional methods in content areas, and preparation of MEd portfolio included. Letter 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 4 each) Tutorial, to be arranged. Preparation: consent of UCLA academic adviser 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. 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 or research for graduate students. May be repeated for credit. S/U grading.


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**Electrical and Computer Engineering**

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Diana L. Huffaker, PhD
Asad M. Madni, PhD
Ingrid M. Verbauwhede, PhD
Eli Yablonovitch, PhD

Adjunct Associate Professors

Chi On Chui, PhD
Keisuke Goda, PhD

Adjunct Assistant Professors

Shervin Moloudi, 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 telecommunication systems, control systems, electromagnetics, embedded computing systems, engineering optimization, integrated circuits and systems, microelectromechanical 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 Engineering). The graduate program provides students with an opportunity to pursue advanced coursework, in-depth training, and research investigations in several fields.

Undergraduate Study

The Electrical Engineering major is accredited by the Engineering Accreditation Commission of ABET.

The Electrical Engineering major is a designated capstone major. Undergraduate students complete a design course in which they integrate their knowledge of the discipline and engage in creative design within realistic and professional constraints. Students apply their knowledge and expertise gained in previous mathematics, science, and engineering coursework. Within a multidisciplinary team structure, students identify, formulate, and solve engineering problems and present their projects to the class.

The Computer Engineering major is a designated capstone major that is jointly administered by the Computer Science and Electrical and Computer Engineering departments. Undergraduate students complete a design course in which they integrate their knowledge of the discipline and engage in creative design within realistic and professional constraints. Students apply their knowledge and expertise gained in previous mathematics, science, and engineering coursework. Students identify, formulate, and solve engineering problems and present their projects to the class.

Electrical Engineering BS

Capstone Major

The undergraduate curriculum provides all Electrical 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-term 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 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 engineering problems

Preparation for the Major
Required: Chemistry and Biochemistry 20A; Computer Science 31, 32; Electrical and Computer Engineering 2, 3, 10, 11L, M16 (formerly numbered Electrical Science M51A); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL.

The Major
Required: Electrical and Computer Engineering 101A, 102, 110, 111L, 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; and one two-term electrical and computer engineering capstone design course (8 units). Electrical and Computer Engineering 100 and CMI182 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 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 upper-division specialization in electrical and computer engineering courses—the remaining 4 units may be from upper-division electrical and computer engineering courses or from another engineering school department; and one two-term electrical and computer engineering capstone design course (8 units). Electrical and Computer Engineering 100 and CMI182 may not satisfy elective credit.

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. (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. (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.

3. Introduction to Electrical Engineering. (Formerly numbered Electrical Engineering 3.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Physics 1C. Honors course parallel to course 2. Letter grading.

4. Circuit Theory I. (Formerly numbered Electrical Engineering 10.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 3 (or Computer Science 1 or Materials Science 10), Mathematics 33A, Physics 1B. Corequisites: course 11L (enforced only for Computer Science and Electrical Engineering and Electrical Engineering majors), Mathematics 33B. Introduction to measurement and design of electrical circuits. Letter grading.

5. Circuit Theory II. (Formerly numbered Electrical Engineering 10H.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 3 (or Computer Science 1 or Materials Science 10), Mathematics 33A, Physics 1B. Corequisites: course 11L (enforced only for Computer Science and Electrical Engineering and Electrical Engineering majors), Mathematics 33B. Honors course parallel to course 10. Letter grading.

6. Circuits Laboratory I. (Formerly numbered Electrical Engineering 11.) Lecture, one hour; laboratory, one hour; outside study, one hour. Enforced corequisite: course 10. Experiments with basic circuits containing resistors, capacitors, inductors, and transistors. Ohm’s law voltage and current division, Thevenin and Norton theorem, sinusoidal steady state. Letter grading.

7. Circuits Laboratory II. (Formerly numbered Electrical Engineering 11L.) Lecture, one hour; laboratory, one hour; outside study, one hour. Enforced corequisite: course 10. Experiments with basic circuits containing resistors, capacitors, inductors, and transistors. Ohm’s law voltage and current division, Thevenin and Norton equivalent circuits, superposition, transient and steady state analysis. Letter grading.

8. Logic Design of Digital Systems. (Formerly numbered Electrical Engineering M16.) (Same as Computer Science M51A.) 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 and control functions. Number systems and arithmetic algorithms. Error control codes for digital information. Letter grading.

9. Fiat Lux Freshman Seminars. (Formerly numbered Electrical Engineering 10H.) 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. Honors Seminars. (Formerly numbered Electrical Engineering M16.) 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.

11. Circuit Theory I. (Formerly numbered Electrical Engineering 10.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 3 (or Computer Science 1 or Materials Science 10), Mathematics 33A, Physics 1B. Corequisites: course 11L (enforced only for Computer Science and Electrical Engineering and Electrical Engineering majors), Mathematics 33B. Honors course parallel to course 10. Letter grading.

12. Circuit Theory II. (Formerly numbered Electrical Engineering 10H.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 3 (or Computer Science 1 or Materials Science 10), Mathematics 33A, Physics 1B. Corequisites: course 11L (enforced only for Computer Science and Electrical Engineering and Electrical Engineering majors), Mathematics 33B. Honors course parallel to course 10. Letter grading.

13. Logic Design of Digital Systems. (Formerly numbered Electrical Engineering M16.) (Same as Computer Science M51A.) 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 and control functions. Number systems and arithmetic algorithms. Error control codes for digital information. Letter grading.

14. Fiat Lux Freshman Seminars. (Formerly numbered Electrical Engineering 10H.) 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.

15. Honors Seminars. (Formerly numbered Electrical Engineering M16.) 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

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 diodes 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 33A and 33B, or 32A and 33B, Physics 1C. Electromagnetic field concepts, waves and phasors, transmission lines and Smith chart, transient responses, vector analysis, introduction to Maxwell equations, quasi-static electromagnetic and electric fields. Letter grading.

101B. Electromagnetic Waves. (4) (Formerly numbered Electrical Engineering 101B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 101A. Time-varying fields and Maxwell equations, plane wave propagation and interaction with media, energy flow and Poynting vector, guided waves in waveguides, phase and group velocity, reflection and transmission. Letter grading.


110. Circuit Theory II. (4) (Formerly numbered Electrical Engineering 110.) Lecture, three 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 Engineering 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.

110H. Circuit Theory II (Honors). (4) (Formerly numbered Electrical Engineering 110H.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course M16 (or Computer Science M51A), 102. Corequisite: course 111L. 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; discussion, one hour; outside study, two hours. Prerequisites: course 100 or 110. Experiments with basic circuits containing resistors, capacitors, inductors, and op-amps. Ohm’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 II. (1) (Formerly numbered Electrical Engineering 111L.) Lecture, one hour; laboratory, one hour; outside study, one hour. Enforced requisites: course 10L, 11L. Corequisite: course 110. Experiments with electrical circuits containing resistors, capacitors, inductors, transformers, and op-amps. Steady state power analysis, frequency response principles, op-amp equivalents, active filters, 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 dynamics. Letter grading.


113DA-113DB. Digital Signal Processing Design. (4–4) (Formerly numbered Electrical Engineering 113DA-113DB.) Real-time implementation of digital signal processing algorithms on digital processor chips. Experiments involving A/D and D/A conversion, aliasing, digital filtering of sinusoidal oscillators, Fourier transforms, and finite wordlength effects. Course project involving original design and implementation of signal processing systems for communications, speech, audio, or video using Digital Signal Chip. 113DA. Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: course 113. In progress grading (credit to be given only on completion of course 113DB). 113DB. Laboratory, four hours; outside study, eight hours. Enforced requisite: courses 113, 113DA. Completion of projects begun in course 113DA Letter grading.

114. Speech and Image Processing Systems Design. (4) (Formerly named Electrical Engineering 114.) Lecture, three hours; discussion, one hour; laboratory, two hours; outside study, six hours. Enforced requisite: course 113. Design principles of speech and image processing systems. Image processing, speech, analysis, and modeling in first half of course; design techniques for image enhancement, filtering, and transformation in second half. Lectures supplemented by laboratory implementation of speech and image processing tasks. Letter grading.

115A. Analog Electronic Circuits I. (4) (Formerly numbered Electrical Engineering 115A.) Lecture, four hours; discussion, one hour; laboratory, two hours; outside study, seven hours. Enforced requisite: course 110. Review of physics of operation and devices of bipolar and MOS transistors. Equivalent circuits and models of semiconductor devices. Analysis and design of single-stage amplifiers and operational amplifiers. Frequency response analysis. Operational amplifier systems. Letter grading.

115AL. 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, operational transistors. Focus on feedback and the effects of single-stage amplifiers, operational amplifiers, and operational amplifier circuits. Introduction to hands-on design experience based on individuals’ interests in hardware design and implementation platforms. Letter grading.


115C. Digital Electronic Circuits. (4) (Formerly numbered Electrical Engineering 115C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 100 or 115A, and Computer Science M51A. Transistor-level digital circuit analysis and design. Modern logic families (static CMOS, pass-transistor logic, dynamic logic, programmable logic devices, 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 115B. Description of process of circuit design through lectures to complement other laboratory-based design courses. Topics vary by instructor and include communication circuits, power electronics, and instrumentation and measurement and may entail simulation-based design projects. Emphasis throughout on design-oriented analysis and rigorous approach to practical 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 M16 or Computer Science M51A. Topics: computer architecture, course M16 or Computer Science M51A, or Computer Science M152A, Computer Science M111. Computer system organization and design, implementation of CPU datapath and control, instruction set design, memory organization and management, input/output subsystems (bus structures, interrupts, DMA), performance evaluation, pipeline processing, and computer organization and design. Letter grading.

M116L. Introductory Digital Design Laboratory. (2) (Formerly numbered Electrical Engineering M116L.) (Same as Computer Science M152A.) Laboratory, four hours; discussion, one hour; outside study, seven hours. Requisites: course 131A or Civil and Environmental Engineering 110 or Mathematics 108A, or Statistics 100A. Hands-on design, implementation, and debugging of digital logic circuits, use of computer-aided design tools for schematic capture and simulation, implementation of combinational and sequential logic using programmable array logic, design projects. Letter grading.

M119. Fundamentals of Embedded Networked Systems. (4) (Formerly numbered Electrical Engineering M119.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 131A or Civil and Environmental Engineering 110 or Mathematics 108A, or Statistics 100A. Introduction to computer-aided design tools for schematic capture and simulation, implementation of combinational and sequential logic using programmable array logic, design projects. 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 principles of operation of bipolar and MOS transistors, equivalent circuits, high-frequency behavior, voltage limitations. Letter grading.

121DA-121DB. Semiconductor Processing and Device Design—(4) (Formerly numbered Electrical Engineering 121DA-121DB.) Design fabrication and operation of semiconductor devices. Students perform various processing tasks such as wafer preparation, oxidation, diffusion, metallization, and photolithography. Introduction to CAD tools used in integrated circuit simulations. Use of device design tools and optimization software to design semiconductor devices. Letter grading.
only on completion of course 121DB. 121DB. Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisites: courses 121B, 121DA. Letter grading.


123B. Fundamentals of Solid-State II. (4) (Formerly numbered Electrical Engineering 123B.) Lecture, four hours; outside study, eight hours. Enforced requisite: course 123A. Discussion of solid-state properties, lattice vibrations, thermal properties, dielectric, magnetic, and semiconductor properties. Letter grading.

128. Principles of Nanoelectronics. (4) (Formerly numbered Electrical Engineering 128.) Lecture, four hours; discussion, four hours; outside study, four hours. Requisite: Physics 1C. Introduction to fundamentals of nanoelectronics and nanosystems. Principles of fundamental quantities: electron charge, effective mass, Bohr magneton, and spin, as well as theoretical approaches. From these nanoscale components, the fundamental behavior 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 and build a nanoelectronic device. Letter grading.

131A. Probability and Statistics. (4) (Formerly numbered Electrical Engineering 131A.) Lecture, four hours; discussion, one hour; outside study, 10 hours. Enforced requisites: courses 102, 113, 131A. Review of basic probability, basic principles of hypothesis testing, sufficient statistics and waveform communication, signal-design tradeoffs for digital communications, basics of error control coding, intersymbol interference, and orthogonal frequency-division multiplexing (OFDM), basics of wireless communications. 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, 113, 131A. Review of basic probability, basic principles of hypothesis testing, sufficient statistics and waveform communication, signal-design tradeoffs for digital communications, basics of error control coding, intersymbol interference, and orthogonal frequency-division multiplexing (OFDM), basics of wireless communications. 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: courses 102, 113, 131A. Review of basic probability, basic principles of hypothesis testing, sufficient statistics and waveform communication, signal-design tradeoffs for digital communications, basics of error control coding, intersymbol interference, and orthogonal frequency-division multiplexing (OFDM), basics of wireless communications. Letter grading.

132C. Microwave and Wireless Design I. (4) (Formerly numbered Electrical Engineering 132C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 131A. Mathematics 33A. Topics include fundamental properties of electrical activity in neurons; technology for measuring 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 234A. Letter grading.

132D. Microwave and Wireless Design II. (4) (Formerly numbered Electrical Engineering 132D.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 131A. Mathematics 33A. Topics include fundamental properties of electrical activity in neurons; technology for measuring 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 234A. Letter grading.

136A. Microwave and Wireless Design I. (4) (Formerly numbered Electrical Engineering 136A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101A, 101B, 102. Radio frequency transceivers and their building blocks according to given specifications or in form of open-ended problems. Introduction to advanced topics related to project design. Providing students with the opportunity to work in research and development teams and to learn about current research and development activities. Letter grading.

136B. Microwave and Wireless Design II. (4) (Formerly numbered Electrical Engineering 136B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101A, 101B, 102. Radio frequency transceivers and their building blocks according to given specifications or in form of open-ended problems. Introduction to advanced topics related to project design. Providing students with the opportunity to work in research and development teams and to learn about current research and development activities. Letter grading.
170A. Principles of Photonics. (4) Formerly numbered Electrical Engineering 170A.) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisite: courses 2, 101A. Development of solid foundation on essential principles of photonics. Topics include wave propagation, modes, optical interferences and resonators, optical coupling and modulation, optical systems, basic principles of lasers and light-emitting diodes, and optical detection. Letter grading.

170B. Photonic Devices and Circuits. (4) Formerly numbered Electrical Engineering 170B.) Lecture, four hours; recitation, one hour; outside study, eight 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 photovoltaic solar cells of various types and materials. Letter grading.

M171L. Data Communication Systems Laboratory. (2 to 4) Formerly numbered Electrical Engineering M171L.) (Same as Computer Science M171L.) Laboratory, four to eight hours; outside study, two to four hours. Recommended preparation: course M116L. Limited to seniors. Not open to students with credit for course M117. Interpretation of analog-signaling aspects of data communications through experience in using contemporary test instruments to generate and display signals in relevant laboratory setups. Use of oscilloscopes, pulse and function generators, spectrum analyzers, and desktop computers, terminals, modems, PCs, and workstations in experiments on pulse transmission impairments, waveforms and their spectra, modem and terminal characteristics, and interfaces. Letter grading.

173DA-173DB. Photonics and Communication Design. (4-4) Formerly numbered Electrical Engineering 173DA-173DB.) Lecture, four to eight hours; laboratory, four hours; outside study, eight hours; recitation, four hours. Topics in optical communications. Letter grading. 

173DA. Photonics and Sensing. (4) Formerly numbered Electrical Engineering 173DA.) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisite: course 101A. Requisites: courses 2, 101A. Design of optical sensors, analytical instruments, and photonic devices for various applications. Includes introduction to the principles of detection and measurement. Letter grading.


180DA. Systems Fundamentals. (4) Formerly numbered Electrical Engineering 180DA.) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisite: course 101A. Study of different types of electrical and their physical behavior. Emphasizes design and testing of projects. Letter grading.

180DB. Systems Design. (4) Formerly numbered Electrical Engineering 180DB.) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisite: course 101A. Study of different types of electrical systems and their physics background. Emphasizes design and testing of projects. Letter grading.

183DA. Design of Robotic Systems I. (4) Formerly numbered Electrical Engineering 183DA.) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 183B. Design of robotic systems. Letter grading.

183DA. Design of Robotic Systems II. (4) Formerly numbered Electrical Engineering 183DA.) Lecture, four hours; laboratory, four hours; outside study, eight hours. Enforced requisite: course 183DA. Recommended: courses 141, 142. Limited to senior Electrical Engineering majors. Topics in robotics design include integrated electromechanical design, design for manufacturing (DFM), design software, and design automation. Topics in robotic manufacturing include sensors and actuators, programming, and rapid prototyping. Topics in control include manipulation, motion and path planning, learning and adaptation, and human-robot interaction. Additional topics may include multi-robot systems, bio-inspired robotics, project management, and societal implications. Letter grading.

184DA-184DB. Independent Group Project Design. (2-2) Formerly numbered Electrical Engineering 184DA-184DB.) Lecture, five hours; discussion, one hour. Enforced requisite: courses M16, 110L. Course 184DA is an 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. Projects will be based on autonomous robots. Letter grading.

M201. VLSI Design Automation. (4) Formerly numbered Electrical Engineering 201A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Fundamentals of design automation of VLSI circuits and systems, including introduction to circuit and system platforms such as field programmable gate arrays and multidevice systems; high-level synthesis, logic synthesis, and technology mapping; physical design; and testing and verification. Letter grading.

M215. Modeling of VLSI Circuits and Systems. (4) Formerly numbered Electrical Engineering 215C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Detailed study of VLSI circuit and system models considering performance, signal integrity, power and thermal effects, reliability, and manufacturability. Discussion of principles of modeling and optimization codevelopment. Letter grading.

M222A. Embedded Systems. (4) Formerly numbered Electrical Engineering 222A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Study of digital design and circuit design 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 origins; layout design for manufacturing; test structures and process control; circuit art architecture methods for variability mitigation. Letter grading.

M202B. Energy-Aware Computing and Cyber-Physical Systems. (4) Formerly numbered Electrical Engineering 202B.) (Same as Computer Science M213B.) Lecture, four hours; discussion, one hour; outside study, eight hours. Special topics in energy-aware and cyber-physical systems. Letter grading.

Graduate Courses

201A. VLSI Design Automation. (4) Formerly numbered Electrical Engineering 201A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Fundamentals of design automation of VLSI circuits and systems, including introduction to circuit and system platforms such as field programmable gate arrays and multidevice systems; high-level synthesis, logic synthesis, and technology mapping; physical design; and testing and verification. Letter grading.

205. Nanoscale Electronic Devices. (4-4) Formerly numbered Electrical Engineering 205A.) Lecture, four hours; laboratory, four hours; discussion, four hours; outside study, eight hours. Enforced requisite: course 203B. Design of advanced nanoscale electronic devices. Letter grading.

201A. VLSI Design Automation. (4) Formerly numbered Electrical Engineering 201A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Fundamentals of design automation of VLSI circuits and systems, including introduction to circuit and system platforms such as field programmable gate arrays and multidevice systems; high-level synthesis, logic synthesis, and technology mapping; physical design; and testing and verification. Letter grading.

201A. VLSI Design Automation. (4) Formerly numbered Electrical Engineering 201A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Fundamentals of design automation of VLSI circuits and systems, including introduction to circuit and system platforms such as field programmable gate arrays and multidevice systems; high-level synthesis, logic synthesis, and technology mapping; physical design; and testing and verification. Letter grading.

201A. VLSI Design Automation. (4) Formerly numbered Electrical Engineering 201A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Detailed study of VLSI circuit and system models considering performance, signal integrity, power and thermal effects, reliability, and manufacturability. Discussion of principles of modeling and optimization codevelopment. Letter grading.

201A. VLSI Design Automation. (4) Formerly numbered Electrical Engineering 201A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Detailed study of VLSI circuit and system models considering performance, signal integrity, power and thermal effects, reliability, and manufacturability. Discussion of principles of modeling and optimization codevelopment. Letter grading.

201A. VLSI Design Automation. (4) Formerly numbered Electrical Engineering 201A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Detailed study of VLSI circuit and system models considering performance, signal integrity, power and thermal effects, reliability, and manufacturability. Discussion of principles of modeling and optimization codevelopment. Letter grading.

201A. VLSI Design Automation. (4) Formerly numbered Electrical Engineering 201A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Detailed study of VLSI circuit and system models considering performance, signal integrity, power and thermal effects, reliability, and manufacturability. Discussion of principles of modeling and optimization codevelopment. Letter grading.

201A. VLSI Design Automation. (4) Formerly numbered Electrical Engineering 201A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Detailed study of VLSI circuit and system models considering performance, signal integrity, power and thermal effects, reliability, and manufacturability. Discussion of principles of modeling and optimization codevelopment. Letter grading.
209AS. Signal Processing Special. (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, 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 or letter grading.

209BS. Seminar: Circuits and Embedded Systems. (2 to 4) (Formerly numbered Electrical Engineering 209BS.) Seminar, two to four hours; outside study, four to six hours. Discussion and activities on current and advanced topics in one or more aspects of circuits and embedded systems, such as digital, analog, mixed-signal, mobile, personal, enterprise, and data-center scale. Preparation: current knowledge of electrical and computer engineering. Seminar topics include modeling of energy consumption, energy sources, and energy storage; dynamic power management; performance-power scaling and energy proportionality; power-aware design of low-power protocols; battery modeling and management; thermal management; sensing of power consumption. Letter grading.

202C. Networks and Embedded Systems Design. (Formerly numbered Electrical Engineering 202C.) Lecture, four hours; laboratory, four hours; outside study, four hours. Designed for graduate computer science and electrical engineering students. Training in combination of networked embedded systems sign combining embedded hardware platform, embedded operating system, and software interface. Topics include protocol development and design, embedded software development, and the interface to matrix networks. Students with a background in linear algebra, language in which virtually all of modern science and engineering is conducted. Preparation: current knowlege of undergraduate courses and introductory circuit topics. Letter grading.

M206. Machine Perception. (Formerly numbered Electrical Engineering 206.) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for graduate students. Computational aspects of processing visual and other sensory information. Unified treatment of early vision in man and machine. Integration of symbolic and iconic representations in process of image segmentation. Use of both digital and analog design techniques. Letter grading.

M208B. Functional Analysis for Applied Mathematicians and Engineers. (Formerly numbered Electrical Engineering 208B.) 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 fields. Preparation to matrix theory and linear algebra, language in which virtually all of modern science and engineering is conducted. Review of matrices taught in undergraduate courses and introductory circuit topics. Letter grading.

M206B. Matrix Analysis for Scientists and Engineers. (4) (Formerly numbered Electrical Engineering 206B.) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for graduate students. Basic concepts, communications background, transistor networks, and discrete-time circuits, bandgap references. Letter grading.


M214A. Digital Speech Processing. (Formerly numbered Electrical Engineering 214A.) (Same as Bioengineering M214A.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisite: course 2113. Theory and applications of digital processing of speech signals. Mathematical models of human speech production and perception mechanisms, speech analysis/synthesis. Techniques include linear prediction, homomorphic filtering, applications to speech synthesis, automatic recognition, and hearing aids. Letter grading.

214B. Advanced Topics in Speech Processing. (Formerly numbered Electrical Engineering 214B.) Lecture, three hours; discussion, one hour; computer assignments; two hours; outside study, six hours. Requisite: course M214A. Advanced techniques used in various speech processing applications, with focus on speech recognition by humans and machine. Physiology and psychoacoustics of human perception. Dynamic Time Warping (DTW) and Hidden Markov Models (HMM) for automatic speech recognition systems, pattern classification, and search algorithms. Aids for hearing impaired. Letter grading.


215D. Signaling and Synchronization. (Formerly numbered Electrical Engineering 215D.) Lecture, four hours; outside study, eight hours. Requisite: 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 electronic between functional blocks, chips, and systems. Advanced clocking methodologies. Phase-locked loop design for clock generation, and high-performance wire-line transmitters, receivers, and tuning recovery circuits. Letter grading.

M216A. Design of VLSI Circuits and Systems. (4) (Formerly numbered Electrical Engineering M216A.) (Same as Computer Science M216A.) 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/VLSI design and application in computer systems. Fundamental design techniques that can be used to implement complex integrated systems on chips. Letter grading.

216B. VLSI Signal Processing. (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 finite-state machine (FSM) theory, architecture, and circuit design applied to complex DSP algorithms in emerging applications for portable communications and healthcare. Letter grading.

M216C. LSI in Computer System Design. (4) (Formerly numbered Electrical Engineering M216C.) (Same as Computer Science M258B) Lecture, four hours; discussion, 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 Biomedical Engineering M217.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 114
219. Large-Scale Data Mining: Models and Algorithms. (4) (Formerly numbered Electrical Engineering 219.) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction of variety of scalable data modeling tools, both predictive and causal, from different disciplines. Topics include supervised and unsupervised data modeling tools from machine learning, such as support vector machines, different regression algorithms, and types of representation 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. Physical principles and design considerations of field effect devices and charge transport devices. Letter grading.

221C. Microwave Semiconductor Devices. (4) (Formerly numbered Electrical Engineering 221C) Lecture, four hours; discussion, one hour; outside study, seven hours. Physical 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. Recommended requisite: course 202. Principles of integrated circuits fabrication processes. Technological limitations of integrated circuits design. Topics include bulk crystal and epitaxial growth, thermal oxidation, diffusion, ion-implantation, chemical vapor deposition, dry etching lithography, metalization, and introduction of advanced process simulation tools. Letter grading.

223. Solid-State Electronics I. (4) (Formerly numbered Electrical Engineering 223) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended requisite: course 220. Energy band theory, electronic band structure of various elements, compounds, and semiconductors, defects in semiconductors. Recombination, mechanisms, transport properties. Letter grading.

224. Solid-State Electronics II. (4) (Formerly numbered Electrical Engineering 224) Lecture, four hours; outside study, eight hours. Recommended requisite: course 223. Techniques to solve Boltzmann transport equation, various scattering mechanisms in semiconductors, high field transport properties in semiconductors, Monte Carlo method in transport. Optical properties. Letter grading.

225. Physics of Semiconductor Nanostructures and Devices. (4) (Formerly numbered Electrical Engineering 225) Lecture, four hours; outside study, eight hours. Recommended requisite: course 223. Theoretical methods for calculating electronic and optical properties of semiconductor nanostructures, particularly effects and low-dimensional systems. Application to semiconductor nanometer scale devices, including negative resistance diodes, transistors, and detectors. Letter grading.

226. Seminar: Advanced Topics in Solid-State Electronics. (4) (Formerly numbered Electrical Engineering 226) Seminar, four hours; outside study, eight hours. Recommended requisite: course 225. Advanced research topics, such as radiation effects in semiconductor devices, diffusion in semiconductors, optical and microwave semiconductor devices, nonlinear optics, and electron emission. Letter grading.

227. Advanced Electrical Engineering Seminar. (4) (Formerly numbered Electrical Engineering 227) 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.

230A. Detection and Estimation in Communication. (4) (Formerly numbered Electrical Engineering 230A) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended requisite: courses 131A, 230A. Topics include estimation and detection concepts in communication and signal processing; random signal and noise characteristics by analysis and simulations; mean square (MS) and maximum likelihood (ML) estimation algorithms and detection under ML, Bayes, and Neyman-Pearson (NP) criteria; signal-to-noise ratio (SNR) and error probability evaluations. Introduction to Monte Carlo methods. Letter grading.

230B. Digital Communication Systems. (4) (Formerly numbered Electrical Engineering 230B) Lecture, four hours; discussion, one hour; outside study, eight hours. Recommended requisite: courses 131A, 230A. Topics include linear equalization, channel coding, turbo codes, and low-density parity-check (LDPC) codes. Letter grading.

230C. Signal Processing in Communications. (4) (Formerly numbered Electrical Engineering 230C) Lecture, four hours; outside study, eight hours. Recommended requisite: courses 131A, 230A. Topics include linear equalization, channel coding, turbo codes, and low-density parity-check (LDPC) codes. Letter grading.

230D. Code Assignment Theory. (4) (Formerly numbered Electrical Engineering 230D) Lecture, four hours; outside study, eight hours. Recommended requisite: courses 131A, 230A. Topics include linear equalization, channel coding, turbo codes, and low-density parity-check (LDPC) codes. Letter grading.

231A. Stochastic Processes and Stochastic Calculus. (4) (Formerly numbered Electrical Engineering 231A) Lecture, four hours; outside study, eight hours. Recommended 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; and sources with side-information; basics of multiterminal lossy data compression; basics of network information flow over general noisy networks. Letter grading.

231B. Information Coding Theory. (4) (Formerly numbered Electrical Engineering 231B) Lecture, four hours; outside study, eight hours. Recommended requisite: course 231A. Fundamentals of error control codes and decoding algorithms. Topics include convolutional 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; outside study, eight hours. Recommended requisite: course 232A. Stochastic processes as applied to study of communication systems, traffic engineering, business, and management. Discrete-time and continuous-time Markov chain processes. Renewal processes, regenerative processes, Markov-renewal, semi-Markov and semiregenerative stochastic processes. Applications to traffic and queueing analysis of basic telecommunication and computer communication networks, Internet, and management systems. Letter grading.

232B. Telecommunication Switching and Queueing Systems. (4) (Formerly numbered Electrical Engineering 232B) Lecture, four hours; outside study, eight hours. Recommended requisite: course 232B. Modeling, analysis, and design of queueing systems with applications to switching systems, computer communication networks, wireless networks, and systems and business and management systems. Modeling, analysis, and design of queueing systems with applications to wireless networks, WiFi mesh networks, peer-to-peer mobile ad hoc wireless networks, Autonomous transport networks. Letter grading.

232C. Communications Networking and Traffic Management. (4) (Formerly numbered Electrical Engineering 232C) Lecture, four hours; outside study, eight hours. Recommended requisite: course 232C. Modeling, analysis, and design of queueing systems with applications to wireless networks, WiFi mesh networks, peer-to-peer mobile ad hoc wireless networks, Autonomous transport networks. Letter grading.

232D. Communications Networking and Traffic Management. (4) (Formerly numbered Electrical Engineering 232D) Lecture, four hours; outside study, eight hours. Recommended requisite: course 232D. Modeling, analysis, and design of queueing systems with applications to wireless networks, WiFi mesh networks, peer-to-peer mobile ad hoc wireless networks, Autonomous transport networks. Letter grading.

232E. Large-Scale Social and Complex Networks: Design and Algorithms. (4) (Formerly numbered Electrical Engineering 232E) Lecture, four hours; recitation, one hour; outside study, seven hours. Modeling and design of large-scale complex networks, including social networks, peer-to-peer file-sharing networks, and online markets. 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-commerce detection, friendship recommendations, viral popularity, and epidemics. Introduction to network algorithms, computational complexity, and nondeterministic, polynomial-time completeness. Letter grading.
23A. Wireless Communications System Design, Modeling, and Implementation. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A or equivalent. Topics include wireless channel modeling, single-carrier and multi-carrier systems, multiple antenna systems, radio impairments and their correction, architectures and circuits for digital-to-analog and analog-to-digital conversion, wideband sensing, wideband signaling, cognitive radio, massive multiple-input, multiple-output (MIMO) systems, and applications in 5G and Internet of things (IoT) communications.

234A. Network Coding Theory and Applications. (4) (Formerly numbered Electrical Engineering 234A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Algebraic approach and main theorems in network coding, combinatorial approach and alphabet size, linear programming approach and throughput benefits, network code design algorithms, secure network coding, network coding for wireless, other grading. Letter grading.

235A. Mathematical Foundations of Data Storage Systems. (4) (Formerly numbered Electrical Engineering 235A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A or equivalent. Research developments in new mathematical techniques for emerging large-scale, ultra-reliable, fast, and affordable data storage systems. Topics include, but are not limited to, graph-based codes and algebraic codes and decoders for modern storage devices (e.g., Flash), rank modulation, rewriting codes, algorithms for data deduplication and synchronization, and redundant array of independent disks (RAID) systems. Letter grading.


237. Dynamic Programming. (4) (Formerly numbered Electrical Engineering 237.) (Same as Mechanical and Aerospace Engineering M276.) Lecture, four hours; discussion, eight hours. Enforced requisite: course M153. Dynamics learning, multiagent learning, multiagent deep reinforcement learning, and structured results for online learning, multiarmed bandits learning, multiagent learning, multiagent deep reinforcement learning. Letter grading.

238A. 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 aspects of signals and systems, such as communications, control, image processing, information theory, multimedia, computer networking, optimization, speech processing, telecommunication, and VLSI signal processing. May be repeated for credit with topic change. S/U or letter 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. Requisite: current in and 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, telecommunication, and VLSI signal processing. May be repeated for credit with topic change. S/U grading.

M240A. Linear Dynamic Systems. (4) (Formerly numbered Electrical 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-variant (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, Jordan form, state feedback, and observability and minimality. Stability design via state feedback and observers. Special topics. Applications of transfer function techniques to linear dynamic systems. Letter grading.


241A. Stochastic Processes. (4) (Formerly numbered Electrical Engineering 241A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Review of basic probability, axiomatic development, expectation, convergence of random processes; stationarity, power spectral density. Renewal theory. Review of random processes, Markov processes, martingales, etc. Letter grading.


M243A. Neural Signal Processing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A, Mathematics 33A, Topics include fundamental properties of electrical activity in neurons; technology for measuring neural activity; spiking statistics and Poisson processes; generative models and classification; and Kaiman filtering; principal components analysis, factor analysis, and expectation maximization. Concurrently scheduled with course C143A. Letter grading.

M245S. Seminar: Systems, Dynamics, and Control Topics. (2) (Formerly numbered Electrical Engineering M245S.) (Same as Chemical Engineering M297 and Mechanical and Aerospace Engineering M239A.) 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.

M250B. Microelectromechanical Systems (MEMS) Fabrication. (4) (Formerly numbered Electrical Engineering M250B.) (Same as Bioengineering M250B and Mechanical and Aerospace Engineering M280B.) 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 control in process development. Issues such as chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

M252. Microelectromechanical Systems (MEMS) Device Physics and Design. (4) (Formerly numbered Electrical Engineering M252 and Bioengineering M252.) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to MEMS design. Design of sensors, actuators, 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.

M255. Neuroengineering. (4) (Formerly numbered Electrical Engineering M255.) (Same as Bioengineering M255 and Neuroscience M255.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 23A, Physics 1B or 5C. Introduction to principles and technologies of bioelectricity and neural signal recording, processing, and stimulation. Topics include: electrophysiology (action potentials, local field potentials, EEG, ECOG), intracellular and extracellular recording, micropositioning and technology for processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulus artifact removal), brain-computer interfaces, deep-brain stimulation, and prosthetics. Letter grading.


M257. Nanoscience and Technology. (4) (Formerly numbered Electrical and Computer Engineering M257.) 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-assemble) nanofabrication; nanocharacterization; nanomaterials, nanoelectronics, and nanodevices. Emphasis on the link to new knowledge and technologies in nano areas to understand scientific principles behind nanotechnology and inspire students to create new ideas in multidisciplinary 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 generalized coordinate.
system. 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. Geometrical optics, electromagnetic and dyadic calculus. Letter grading.

260B. Advanced Engineering Electrodynamics. (4) (Formerly numbered Electrical Engineering 266B.) Lecture, four hours; outside study, eight hours. Requisites: courses 162A, 260A. Advanced treatment of concepts and numerical techniques in electrodynamics and their applications to modern engineering problems, including problems of complex surfaces. Geometrical optics and geometrical theory of diffraction. Physical optics techniques. Asymptotic techniques and uniform theories. Integral equations in electromagnetic problems. Lecture, three hours; outside study, nine hours. Requisite: course 170B or 170B equivalent. Top-down introduction to physical layer design in fiber optic communication systems, including Telecom, Datacom, and CATV. Fundamentals of digital and analog optical communication systems, fiber transmission characteristics, and optical modulation techniques. Application to fiber based homogenization and computer-aided design. Architectural-level design of fiber optic transceiver circuits, including preamplifier, quantizer, clock and data recovery, laser driver, and predistortion. Letter grading.

279AS. Special Topics in Physical and Wave Electronics. (4) (Formerly numbered Electrical Engineering 279AS.) Lecture, four hours; discussion, one hour; outside study, seven hours. Topics in one or more aspects of physical and wave electronics, such as electromagnetics, microwave and millimeter wave circuits, photonicics and optoelectronics, plasma electronics, micromechanical systems, solid state, and nano-technologies. May be repeated for credit with topic change. S/U or letter grading.

279BS. Seminar: Research Topics in Electrical Engineering. (1) (Formerly numbered Electrical Engineering 279BS.) Seminar, two to four hours; outside study, four hours. Seminar focused on topics in electrical engineering. May be repeated for credit with topics of heightened interest. S/U grading.

295. Seminar Series: Electrical Engineering. (1) (Formerly numbered Electrical Engineering 295.) Lecture, four hours; outside study, eight hours. Requisites: courses M185, and 285A or Physics 222A. Introduction to intellectual property (IP) in context of technology products and markets. Topics include best practices to put in place before product development launch, including IP due diligence, patent licensing, offensive and defensive IP litigation considerations, trade secrets, opportunities and pitfalls of open source software, trademarks, managing open source, increasing IP value of ecosytems, and adopting IP strategies to globalized marketplaces. Includes case studies inspired by complex IP questions facing technology companies today. S/U or letter grading.

296. Academic Technical Writing for Electrical Engineers. (3) (Formerly numbered Electrical Engineering 296.) Seminar, three hours. Designed for electrical engineering PhD students who have completed preliminary examination or completed first year of graduate course work. Development 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, lawyers, consultants, etc.) to enhance communication and presentation skills. Letter grading.

297. Seminar: Research Topics in Electrical Engineering. (2 to 4) (Formerly numbered Electrical Engineering 297.) Seminar, two to four hours; outside study, seven to nine hours. Seminar focused on topics in electrical engineering. May be repeated for credit with topics of heightened interest. S/U 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, and which has had substantial ethical, social, economic, political, and technological aspects. Concurrently scheduled with course CM182. S/U grading.

CM282. Seminar: Research Topics in Electrical Engineering. (1) (Formerly numbered Electrical Engineering CM282.) Seminar, two to four hours; outside study, seven to nine hours. Seminar focused on topics in electrical engineering. May be repeated for credit with topics of heightened interest. S/U grading.

CM296. Seminar: Research Topics in Electrical Engineering. (1) (Formerly numbered Electrical Engineering CM296.) Lecture, three hours. Seminar focused on topics in electrical engineering. May be repeated for credit with topics of heightened interest. S/U grading.

CM297. Seminar Series: Electrical Engineering. (1) (Formerly numbered Electrical Engineering CM297.) Seminar, nine hours; outside study, nine hours. Seminar focused on topics in electrical engineering. May be repeated for credit with topics of heightened interest. S/U grading.

CM298. Seminar: Research Topics in Electrical Engineering. (2 to 4) (Formerly numbered Electrical Engineering CM298.) Seminar, two to four hours; outside study, seven to nine hours. Seminar focused on topics in electrical engineering. May be repeated for credit with topics of heightened interest. S/U grading.
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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-ship under 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 M495S.) Seminar, two hours. Limited to graduate electrical engineering students. The course is required of all departmental teaching assistants (TAs). May be taken concurrently while holding a TA position. 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. 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 Examinations. (2) (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 Examinations. (2 to 16) (Formerly numbered Electrical Engineering 597B.) Tutorial, to be arranged. Limited to graduate electrical engineering students. Reading and preparation for PhD comprehensive examinations. 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 proposals. 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. Supervised independent research for PhD candidates, including dissertation proposals. S/U grading.

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.

Graduate Degrees

The Henry Samueli School of Engineering and Applied Science offers the Master of Engineering (MEng) degree (through the Engineering Executive Program), Master of Science (MS) online degree in Engineering, and Engineer (Eng) degree as schoolwide degrees. The following area-specific online degrees have also been established: MS in Engineering—Aerospace, MS in Engineering—Computer Networking, MS in Engineering—Electronic Materials, MS in Engineering—Integrated Circuits, MS in Engineering—Manufacturing and Design, MS in Engineering—Materials Science, MS in Engineering—Mechanical, MS in Engineering—Signal Processing and Communication, and MS in Engineering—Structural Materials. A certificate of specialization is available in all areas of specialization, except computer science.

Engineering

Lower-Division Courses

2. Technology and Society. (2) Lecture, two hours; discussion, one hour; outside study, three hours. Introduction of broader societal opportunities, impacts, and challenges associated with technology. Drawing from historical and contemporary examples, consideration of some of ethical, policy, and legal questions spurred by rapid technological change. Development of perspectives to take broad, contextualized view of role of technology in society. Letter grading.

10A. Introduction to Complex Systems Science. (5) Lecture, four hours; outside study, eight hours. How macroscopic patterns emerge dynamically from local interactions of large number of interdependent (often heterogeneous) entities, without global design or central control. Such emergent order, whose explanation cannot be reduced to explanations at level of individual entities, is ubiquitous in biology and human social collectives, but also exists in certain physical processes such as earthquakes and some chemical reactions. Complexity also deals with how such systems undergo sudden changes, including catastrophic breakdowns, in absence of external force or central influence. Key aspect of biological and social collectives is their nature as complex adaptive systems, where individuals and groups adjust their behavior to external conditions. In biological and social systems, complexity science goes beyond traditional mathematics and statistics in its use of multigent computational models that better capture these complex, adaptive, and self-organizing phenomena. 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. First-Year Engineering Transition Bridge. (2) Seminar, 32 hours. Designed primarily for new students to help them understand UCLA, its culture, structure, and academic policies and to facilitate their transition from high school to college. Examination of research on first-year experience of college students, students at UCLA versus high school, policies and procedures, and campus resources. Advanced preparation and early exposure to Fall Quarter. S/U grading.

21. Computing Immersion Summer Experience. (2) Seminar, 32 hours. Designed primarily for new students to help them understand UCLA, its culture, structure, and academic policies and to facilitate their transition from high school to college. Examination of research on first-year experience of college students, students at UCLA versus high school, policies and procedures, and campus resources. Designed to immerse incoming computing students in foundation concepts and principles of computer science, with focus on fundamental programs, programming principles, methodologies, and techniques. Basic concepts of programming and C++ computing language. Offered in summer only. P/NP grading.

22. Summer Bridge Review for Enhancing Engineering Students. (2) Seminar, 32 hours. Designed primarily for new students to help them understand UCLA, its culture, structure, and academic policies and to facilitate their transition from high school to college. Examination of research on first-year experience of college students, students at UCLA versus high school, policies and procedures, and campus resources. Designed to immerse incoming computing students in foundation concepts and principles of computer science, with focus on fundamental programs, programming principles, methodologies, and techniques. Basic concepts of programming and C++ computing language. Offered in summer only. P/NP grading.

23. Finding Industry Internship. (2) Seminar, two hours; outside study, four hours. Designed to help engineering students identify, prepare for, and find internships. Students learn about various components of internship/job application and practice preparing relevant materials. Prepares students for career-related social interactions. Development of skills and insights to successfully secure future opportunities, such as first industry internship. P/NP grading.

24. Finding Undergraduate Research Opportunity. (2) Seminar, two hours; outside study, four hours. Designed to help engineering students identify, prepare for, and find internships. Students learn about various components of internship/job application and practice preparing relevant materials. Prepares students for career-related social interactions. Development of skills and insights to successfully secure future opportunities, such as first industry internship. P/NP grading.

Scope and Objectives

The Department of Emergency Medicine focuses on the teaching and management of diagnosis and treatment of unforeseen illness or injury. The practice of emergency medicine includes the initial evaluation, diagnosis, treatment, coordination of care among multiple providers, and disposition of any patient requiring expeditious medical, surgical, or psychiatric care. A three- or four-week subinternship rotation is offered to fourth-year medical students. The length of training in the residency program is four years.

For details on the Department of Emergency Medicine and courses offered, see the department website.
96E. Introduction to Engineering Design: Electrocardiogram. (2) Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Students learn and use concepts and techniques in electrical circuit design and analysis, cardiac electrophysiology, bio-physics, microcontrollers, and computer programming. Students work in teams to design, construct, and test circuit boards capable of measuring human electrocardiograms by capturing data with microcontroller, and with computer display. Students present their designs orally and in writing. Letter grading.

96G. Introduction to Engineering Design: Go-Karts. (2) Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Students learn and use concepts and techniques in computer-aided design, finite element analysis, machining, electric motor performance, steering linkages, and general mechanical design and assembly to work in teams and construct test go-karts. Students present their designs orally and in writing. Letter grading.

M101. Principles of Nanoscience and Nanotechnology. (4) (Same as Materials Science M105.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, Physics 1A, 1B. Introduction to science encompassing structure, properties, and fabrication of technologically important nanoscale systems. New phenomena that emerge in very small systems (typical size: feature size of nanometer). Nanoscale systems are an area of science where classical ideas and principles do not apply. Examination of core concepts and frameworks as well as potential application of nanotechnology to environmental protection. Technical content will address 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) use of nanotechnology for energy and water production, plus environmental protection, monitoring, and remediation. Letter grading.

110. Introduction to Technology Management and Entrepreneurship for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Fundamental principles of micro-level (individual, firm, and market) and macro-level (national) 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 and marketing 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 include present value, future value, discounting, risk, return on equity, dividend policy, and capital structure. Students will develop mathematical models and perform computer simulations dealing with equity issues such as stock options, return on equity, return on investment, interest rates, cost of capital, and product, price, positioning, and promotion. Use of market research, segmentation, pricing, promotion, and distribution in management of technological innovation. Letter grading.

112. Laboratory to Market, Entrepreneurship for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Critical components of entrepreneurship, finance, marketing, human resource management, and accounting disciplines as they impact management of technology commercialization. Topics include intellectual property management, team building, market forecasting, and financial decision-making. Students work in small teams studying technology management plans to bring new technologies to market. Students select from 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. Development and application of product management concepts to current product concept development. Topics include product strategy, product platform, and product roadmap development. Application of probability of product to market and forecast, product 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 lectures 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 environmental characterized by uncertainty. Probability provides mathematical framework for understanding how to make rational decisions when outcomes are uncertain. Application of probability to problem of reasoning from sample data, encompassing estimation, hypothesis testing, and regression analysis. Discussion of specific analytical techniques needed in later coursework, and development of basic understanding of statistical analysis. Letter grading.

120. Entrepreneurship for Scientists and Engineers. (2) Seminar, two hours; outside study, four hours. Understanding of what constitutes an entrepreneurial opportunity and the identification 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. Exploration of business process and methodology for starting new venture. Introduction to entrepreneurship from perspective of entrepreneur. Examination of core concepts and frameworks
on ideas, generation, market analysis, fundraising, corpo-rate structure, and financial accounting for entre-preneural endeavors. Focus on fundamentals of building business, and also emphasis on inherent ex-periential nature of entrepreneurship and need for constant learning on this subject. Letter grading.

163. Entrepreneurship and New Product Develop-ment for Engineers. (4) Lecture, four hours; discus-sion, one hour; outside study, seven hours. Limited to juniors/seniors. Designed to deepen understanding of innovations and innovative processes related to cre-ating new products. Inquiry into why, what, and how of making new products. New products are essential to any business to stay competitive and thrive. Making successful new products requires various types of innovation. Availability of dig-tal technologies and global outsource has acceler-atated pace of these innovations. Letter grading.

180. Engineering of Complex Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for junior/senior engineering majors. Holistic view of engineering discipline, covering life-cycle design, manufacturing, and in industry today. Multidisciplinary systems engi-neering perspective in which aspects of electrical, me-chanical, material, and software engineering are incor-porated. The studies in communications, sensor, and process systems included to help students understand these concepts. Special atten-tion paid to link material covered to engineering curric-u-lum making students more aware of what they learn and enhance their understanding of knowledge already ac-quired. Motivation of students to continue their learning and reinforce lifelong learning habits. Letter grading.

181EW. Ethics and Impact of Technology on Soci-ety. (4) Lecture, five hours; discussion, three hours; outside study, four hours. Requisite: English Composition 3. Not open for credit to students with credit for course 105, or 159E, or 185EW. Focus on changing nature of technology and complex ethical is- sues that emerge as result in areas such as biotech-nology, information technology, nanotechnology, and energy technology. Discussion of nature of these is-suues; their ethical, legal, and social ramifications; and what society values in relation to these issues. Explo-ration of philosophy, religion, and natural and social sciences in relation to these issues. Emphasis on re-search and writing within engineering environments. Writing and revision of about 20 pages total, including two individual technical essays and one team-written research paper. Readings address technical issues and writing form. Satisfies engineering writing require-ment. Letter grading.

182EW. Technology and Society. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Requisite: English Composition 3, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170, Me-chanical and Aerospace Engineering 174, or Statistics 100A. Not open for credit to students with credit for course 182EW, 183EW, or 185EW. Places engineering in broader societal context through examination of some of key ethical, legal, and regulatory issues and frameworks relevant to design and deployment of emerging technology products and services. Historical examination of ethical and legal frameworks generally and in engineering. Exploration of specific contemporary technology-related topics to examine their broader ramifications. Topics include driverless cars, algorithms and artificial intelligence, global supply chain for engineering products, crypto-cur-mencies and blockchain, net neutrality, and impact of technology on employment. Offers students tools enabling them to think more proactively and holisti-cally about ethical and societal dimensions of their work as technology creators. Satisfies engineering writing requirement. Letter grading.

183EW. Engineering and Society. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Requisite: English Composition 3. Not open for credit to students with credit for course 185EW. Limited to sophomore/junior/senior engineering students. Professional and ethical consid-erations in practice of engineering. Impact of tech-nology on society and development of moral and ethical values. Contemporary environmental, biologi-cal, legal, and other issues created by new technolo-gies. Emphasis on research and writing within engi-neering environments. Writing and revision of about 20 pages total, including two individual tech. essays and one team-written research report. Readings ad-dress technical issues and writing form. Satisfies engi-neering writing requirement. Letter grading.

185EW. Art of Engineering Endeavors. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Enforced requisite: English Composition 3 or 3E. Not open for credit to students with credit for course 185EW, or 185EW. Focus on how to make new products. New products are essential to any business to stay competitive and thrive. Making successful new products requires various types of innovation. Availability of digital technologies and global outsource has accelerated pace of these innovations. Letter grading.

186EW. Art of Engineering Endeavors. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Enforced requisite: English Composition 3 or 3E. Not open for credit to students with credit for course 186EW, or 186EW. Focus on how to make new products. New products are essential to any business to stay competitive and thrive. Making successful new products requires various types of innovation. Availability of digital technologies and global outsource has accelerated pace of these innovations. 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 visiting professors. May be re-peated for credit with topic or instructor change. Letter grading.

191. Seminar Series in Engineering Research. (1) Seminar, one hour; seminar series in cutting-edge en-gineering research issues, such as those raised by UCLA graduate student researcher or post-doctoral scholar. Designed to be accessible to undergraduate students in any science, technology, engineering, and math major. Emphasis on undergraduate stu-dents window into excitement of graduate student re-search experience. Also offers opportunity for grad-uate students to learn about what their peers are doing research wise. Letter grading.

192. Fundamentals of Engineering Mentorship. (2) Seminar, two hours; outside study, four hours. Prin-ciples and practical techniques for instruction of hand-s on engineering design projects in high school out-reach programs. Curriculum planning, project prepa-ration, classroom management, team collaboration, diversity awareness, fostering of group cohesion, and employment of lesson planning and project for summer outreach program, with prac-tice presentations. P/NP grading.

195. Internship Studies in Engineering. (2 to 4) Tu-torial, two to four hours. Limited to juniors/seniors. In-ternship studies course supervised by associate dean or designated faculty members. Further supervision to be provided by organization for which students are doing internship. May be repeated for credit. Indi-vidual contract with instructor approved. Letter grading.

199. Directed Research in Engineering. (2 to 8) Tu-torial, to be arranged. Limited to juniors/seniors. Su-pervised individual research or investigation under guidance of faculty mentor. Culumnating paper or project required. May be repeated for credit with school approval. Individual contract required; enroll-mnet petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Program Management Principles for Engi-neers and Professionals. (4) Lecture, four hours; outside study, eight hours. Designed for graduate stu-dents in engineering management. Prerequisites and procedures to successfully manage technology pro-grams. Review of fundamentals of program planning, organizational structure, implementation, and perfor-mance tracking methods to provide program manager with necessary information to support decision-making process that provides high-quality products on time and within budget. Letter grading.

201. Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Designed for graduate stu-dents. Practical review of major elements of system engineering process. Covered are key elements: system requirements and flow down, product devel-opment cycle, functional analysis, system synthesis and trade studies, budget allocations, risk manage-ment, decision rules, review and audit activities and docu-mentation. Letter grading.

202. Reliability, Maintainability, and Supportability. (4) Lecture, four hours; outside study, eight hours. Recommended course 201. Designed for graduate students with one to two years work experience. Inte-grated logistic support (ILS) is major driver of system life-cycle cost and one key element of system engi-neering activities. Overview of engineering disciplines critical to this function—reliability, maintainability, and supportability—and their relationships, taught using probability theory. Topics also include fault detections and isolations and parts obsolescence. Discussion of 6-sigma process, one effective design and manufac-turing methodology, to ensure system reliability, main-tainability, and supportability. Letter grading.

203. System Architecture. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students with BS degrees in engi-neering or science and one to two years work experi-ence in selected domain. Art and science of archi-tecture. Introduction to architecture—paradigm and tools. Principles of architecting through analysis of architecture designs of major existing sys-tems. Discussion of selected elements of architectural practices such as system architecting, system de-sign progression, and architecture frameworks. Examination of professionalism of system architecting. Letter grading.

204. Trusted Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Trust is placed in in-formation systems to behave properly, but cyber threats and breaches have become routine, including penetrations of financial, medical, government, and na-tional security systems. To build systems that can pro-protect confidentiality, integrity, and availability involves more than composing systems from network security, computer security, data security, cryptography, etc. Question of most pressing interest is how the resulting system could still be vulnerable. Skills learned ensure that systems are architectured, designed, implemented, tested, and operated for specific levels of trust. Aspects include assessing vulnerability and risk for sys-tems, establishing protection principles, and using them as guide to formulate system architectures; teaching architecture and engineering methods and veri-fi-cation correctness of design; and constructing and fol-low ing trusted development and implementation pro-cess. Letter grading.

205. Model-Based Systems Engineering. (4) Lec-ture, four hours; outside study, eight hours. Model-based systems engineering (MBSE) and systems modeling language (SysML) taught through lectures and readings, individual projects, and one group project. Lectures and readings in MBSE to provide students with conceptual framework and vocabulary. Individual projects enable students to develop basic skills for creating SysML requirements and structural and behav-ioural models. In group project students learn how to package, compartmentalize, and integrate smaller efforts while being constrained to meet schedules. Indus-try-recognized credentials may be obtained, as course covers Object Management Group (OMG) Certi-fied Systems Modeling Professional (OCSMP) tests, such as Model User and Model Builder Fundamentals and Model Builder Intermediate. Letter grading.

206. Engineering for Systems Assurance. (4) Lec-ture, four hours; outside study, eight hours. Recommended requisites: course 204, Computer Science 236. Systems are constructed to perform complex functions and interactions. How to understand needs of user, analysis of requirements and defined require-ments, creation of various system architecture prod-ucts, and design and integration of various compo-nents into systems that perform these functions and
services. System assurance addresses confidence that systems meet specified operational requirements based on evidence provided by applying assurance techniques. Introduction, investigation, and analysis of framework of assurance to accomplish total system assurance, development of secure, reliable, and dependable systems that range from commercial realm such as air traffic control, Supervisory Control and Data Acquisition (SCADA), and autonomous vehicles to military command and control, communication, intelligence, and cyber. Letter grading.

210. Operations and Supply Chain Management. (4) Lecture, four hours; outside study, eight hours. Introduction to strategic and operating issues and solutions involving enterprises. Operational processes use organization's resources to transform inputs into goods and utilizes them to provide service, or does both. Conceptual framework and set of analytical tools provided to enable students to better understand why processes behave as they do. Given this understanding, students are able to involve themselves in organizations defining strategic decisions, those related to key processes affecting organizational unit's performance. Letter grading.

211. Financial Management. (4) Lecture, four hours; outside study, eight hours. Introduction to concepts reflecting financial issues covered in certain MBA core and elective courses. Integration of both theory to introduce essential conceptual building blocks in accounting and finance—and empirical practice—to emphasize how these theories are actually implemented in real world. Cases, comprehensive problems, and recent events presented to provide students with as much hands-on experience in applying material presented in class. Letter grading.

212. Intellectual Property Law and Strategy. (4) Lecture, four hours; outside study, eight hours. Prior knowledge of legal doctrines or materials not required. Intellectual property law is not just topic for lawyers. Engineers who have design responsibilities must understand how legal system in some instances protects their designs and in other instances stands as obstacle to what would otherwise be most efficient design choice. Engineers with management responsibilities must understand intellectual property law implications for everything from pricing to strategic partnerships. Examination of intellectual property law, not only by learning fundamental rules associated with patent, copyright, trademark, and trade secret protection, but by studying business strategies that these rules support. Examples and case studies to be taken from across content, 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 solve business and engineering problems, with emphasis on mastery of Excel spreadsheet modeling as integral part of analytic decision making. Managerial models include data modeling, regression and forecasting, linear programming, network and distribution models, integer programming, nonlinear programming, and Monte Carlo simulation. Problems from operations, finance, and marketing taught by spreadsheet examples and describe general 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 oral 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 business enterprises and intended for students who wish to complement their technical education with introduction to entrepreneurship. Letter grading.

299. Capstone Project. (4) Activity, ten hours. Preparation: completion of minimum of four 200-level courses in online MS program. Project course that satisfies UCLA final 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 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.

470A-470D. Engineer in Technical Environment. (3 each) Lecture, three hours; outside study, six hours. Limited to Engineering Executive Program students. Theory and application of quantitative methods in analysis and synthesis of engineering systems for purpose of making management decisions. Optimization of outputs with respect to dollar costs, time, material, energy, information, and manpower. Case studies and individual projects. S/U or letter grading.

471A-471B-471C. Engineer in General Environment. (3–3–1.5) 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 grading (471A): In Progress (471B) and S/U or letter grading (471C).

472A-472B. Engineer in Business Environment. (3–3–1.5) 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 of firm, community, and nation, provided through co-operative and participation with California business corporations and government agencies. In Progress (472A, 472C) and S/U or letter grading (credit to be given on completion of courses 472B and 472D).

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 of technical teams. S/U 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, engineering principles, concepts, and methods, preparation, organization of material, presentation, use of visual aids, grading, advising, and rapport with students. S/U grading.

495C. Teaching Preparation Seminar: Writing for Engineers. (Formerly numbered M495B) (Same as English Composition M495C.) Seminar, two and one half hours; outside study, nine and one half hours. Limited to graduate students. Required of all teaching assistants for Engineering writing courses not exempt from assignment by departmental or program training. Letter grading.

495J. Supervised Teaching of Writing for Engineers. (2) (Formerly numbered M495J) (Same as English Composition M495J.) Seminar, one hour; outside study, four hours. Enforced requisite: course M495I. Required of all teaching assistants in their initial term of teaching Engineering writing courses. 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 concern of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. 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.
James E. Goodwin, PhD
Christopher W. Grose, PhD
George R. Guffey, PhD
N. Katherine Hayles, PhD (John Charles Hills Professor Emerita of Literature)
Henry Ansgar Kelly, PhD
Jascha Kessler, PhD
Gordon L. Kipling, PhD
Verdel A. Kolve, PhD
Richard A. Lanham, PhD
Richard D. Lehan, PhD
Kenneth R. Lincoln, PhD
David Wong Louie, MFA
Anne K. Mellor, PhD
Joseph F. Nagy, PhD
Maximillian E. Novak, DPhil, PhD
Felicity A. Nussbaum, PhD
Raymund A. Paredes, PhD
Jonathan F.S. Post, PhD
Florence H. Ridley, PhD
Alan H. Roper, PhD
George S. Rousseau, PhD
Karen E. Rowe, PhD
Paul D. Sheats, PhD
Donka Minkova Stockwell, PhD
Eric J. Sundquist, PhD (UCLA Foundation Professor Emeritus)
Thomas R. Wortham, PhD
Stephen I. Yenser, PhD

Associate Professors
Allison B. Carruth, PhD (Waldo W. Neikirk Term Professor)
Michael C. Cohen, PhD
Matthew N. Fisher, PhD
Yogita Goyal, PhD
Louise E. Hornby, PhD
Mitchum A. Huehs, PhD
Carrie L. Hyde, PhD
Sarah T. Kareem, PhD
Arthur L. Little, Jr., PhD
Marissa K. Lopez, PhD
Robert M. Maniquis, PhD
Uri G. McMillan, PhD
Anahid J. Nersessian, PhD
Brian K. Stefans, MFA
Caroline A. Streeter, PhD

Assistant Professors
Juan L. Sánchez, PhD
Daniel S. Snelson, PhD
Arvind Thomas, PhD
Justin J. Torres, MFA
Erica M. Weaver, PhD

Senior Lecturers SOE
Jerome Cushman, AB, BLSLS, Emeritus
Stephen J. Dickey, PhD
David Stuart Rodes, PhD, Emeritus

Senior Lecturers
Karen J. Cunningham, PhD
Christopher M. Mott, PhD

Lecturers
Joseph A. Dimuro, PhD
Michelle R. Huneven, MFA

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.

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, 10A, 10B, 10C taken in the stated sequence (each course is a prerequisite for the next course). A grade of C or better is required in each course.

Transfer Students
Transfer applicants to the English 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 English courses, including (1) four historical period courses, one from each of the following four periods: (a) literatures in English to 1500—course 140A through 148 or indicated sections of 149, (b) literatures in English, 1500 to 1700—course 150A through 157, indicated sections of 159 or 159R or 166A, (c) literatures in English, 1700 to 1850—course 160A through 165C,
1668 through 168, 176, or indicated sections of 169 or 169R, and (c) literatures in English, 1850 to present—courses M101B, M101C, M102A, M102B, M104A through M104D, M105B through M105E, 116B, 130, 131, 164B, 164C, 164D, 167A, 167B, 168, 170A through 174C, 176, or 179R; (2) three breadth courses, one from each of the following four areas: (a) gender, race, ethnicity, disability, and sexuality studies—English 100 through 109, M126, 135, 155, 163C, 165B, 166C, or indicated sections of 119, 139, 149, 159R, 169, 169R, 179, or 179R; (b) imperial, transnational, and postcolonial studies—course M105A through M105D, 112D, 128, 130 through 135, 154, 157, 163B, 164D, 165A, 166A, 166B, 176, or indicated sections of 149, 159, 159R, 169, 169R, 179, or 179R; (c) genre studies, interdisciplinary studies, critical theory—course 111A through 129, 144, 146, 147, 153, 156A, 161A, 161B, 161C, 163A, 163C, 164A through 164D, 167A, 171A through 177, or indicated sections of 149, 159, 159R, 169, 169R, 179, or 179R; (d) creative writing—courses 136, 137, M138; (3) two elective courses (two sections of English 110B may fulfill one elective; English 195CE is not applicable); (4) two seminar courses from course 180, 181A, 181B, 182E, 182F, 184, M191D, M191E, and (5) one seminar from course 183A, 183B, 183C, M191A, M191B, M191C, or, when treating American topics, courses 100, M102A, M104A, 166A, 166B, 166C, 167A, 167B, 170A, or, when treating American topics, M101B, 104, 123, 139, 169, (b) identities: places, communities, and environments: studying people, collectives and movements across the diverse geographies of the Americas—courses 100, Kaplan Hall M102A, M102B, M104A through M104E, M105 through M105E, 106, 115A, 117, 118E, 155, 168, 1670, 70C, 172C, 172A, 173C, 174A, 174B, 174C, 175, 176, 177, and, when treating American topics, courses M101B, M101C, M101D, M101E, M107A, M107B, 108, 109, M118F, 119, M126, 132, 133, 134, 139, (c) media: aesthetics, genres, and technologies—courses 115A, 167A, 167B, 167C, 170B, 170C, 172C, 173B, 173C, 174A, 174B, 174C, 175, 177, and, when treating American topics, courses M101B, M101C, M101D, M101E, M107A, M107B, 108, 109, M118F, 119, M126, 132, 133, 134, 139, (d) 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. Students planning to select this program should contact the departmental counselor for more details.

American Literature and Culture BA

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 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, 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


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. 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. This allows them priority enrollment in many upper-division courses.

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 M191E, 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 applicable. Each course applied toward requirements for the major must be at least 4 units and be taken for a letter grade.
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 bio diversity, 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 10A 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 (10 units): English 10B and 30M (or 300SL), with grades of C or better.

Required Upper-Division Courses (20 to 22 units): (1) English 118E and either course M118F or one additional 118E course on a different topic or one 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 133, 166P, Art History 133D, 133E, CHSA, Chicano and Chicana Studies M144, M183, Honors Collegium 141, 174, Italian 124, Public Policy C115, Russian 122, Urban Planning 120, or 121, (3) one course selected from Atmospheric and Oceanic Sciences 141, Earth, Planetary, and Space Sciences 101, Ecology and Evolutionary Biology 116, M131, 154, 176, Environment M109, M111, M130, M132, M133, M134, M137, 150, M135, 157, C159, M161, M163, M164, M166, M167, or Environmental Health Sciences 100, (4) one course selected from English 184, 195CE, 197, 198A, 198B, or 199 that culminates in a project focused primarily on literature from an ecocritical or other environmentally focused perspective. Students may petition to substitute an internship course/independent study/directed research course (195CE, 197, 198, 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, 310-204-1143.

Required Lower-Division Courses (4-5 units): Any Writing II course or equivalent.

Required Upper-Division Courses (26-30 units): One core course from English Composition 130A through 130E; two courses selected from English 110A, 110C, 110E, 110P, 110V, M138 (or English Composition M138), M192 (or English Composition M192), English Composition 131C, 132, 133, 134, 136, 137; one course selected from African American Studies M194A (or Education M194A), Asian American Studies C142A, C142B, C142C, Civic Engagement 163SL, 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, 119A, 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.

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 four papers (three to five pages each) and two in-class essays. 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 requisite: 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.

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, 10A. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context,
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critical and experimental. 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, 4WH or 4WH, 10A, 10B. Survey major works of modern English literature 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 or 4WH or 4WS, 11. Content varies. Introductory survey of American authors, with emphasis on poetry, nonnarrative form, drama, or creative nonfiction depending on wishes of instructor(s) during any given term. Readings from assigned texts, weekly writing assignments expected.

20W. Introduction to Creative Writing. (5) Lecture, four hours; discussion, one hour (when scheduled). Preparation: submission of creative or expository writing samples to screening committee. Enforced requisites: satisfaction of Entry-Level Writing requirement. 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, or drama, depending on wishes of instructor(s) during any given term. Readings from assigned texts and weekly writing assignments required. P/NP or letter grading.

30. American Studies. (5) Lecture, three hours; discussion, one hour; Requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for course 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 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.

70. Medievalisms: Medieval Literature and Contemporary Culture. (5) Lecture, four hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. Service learning with agency involved in issues of public advocacy and social justice. 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 course 150A. Introduction to major writers and genres, 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; 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. Four 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. Service learning. Survey of Shakespeare's plays, including comedies, tragedies, and histories, selected to represent 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. Exploration of how poetic text, image, and nonrealistic forms. 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 how differential readings of a work vary. Readings may range from Greek tragedy to modern drama. Emphasis on critical approaches to dramatic text; study of issues such as plot construction, character, characterization, special uses of language in dramas, and understanding of dramatic form. 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 forms. P/NP or letter grading.

91D. Introduction to Graphic Fiction. (5) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to popular and important cultural work of comics and graphic novels. Emphasis on textual, visual, and nonrealistic forms. Study of critical issues and the ways in which they might be applied to the creative production of comics. P/NP or letter grading.

97H. Honors Research Seminar for Freshmen and Sophomores. (4) Seminar, three hours. Enforced prerequisite: English Composition 3, English 4W (or 4WH), recommended for lower-division students who desire familiarity with research methods in literary studies. Areas may include use of archives; locating, reading, and incorporating secondary and primary sources; textual and textual histories; handbooks. Study in depth of one or two courses. 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 both 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

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 primary focus on literature. Through examination of institutions that form understanding of race—citizenship, nationalism, class, gender, and labor—interpretation of how we come to think of ourselves and others as having race, and effects of such racial thinking. Course is not about any particular racial or ethnic group, but highlights creation of ethnic categories and their effects on cultural production. P/NP or letter grading.

M10A. Premodern Queer and Cultural Studies. (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: satisfaction of Entry-Level Writing requirement. Survey of discrete period of queer literature from beginning to circa 1850. Works by such writers as Sappho, Plato, Marlowe, Shakespeare, and

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Thoma Gray may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101B. 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. Works by such authors as Edith E要做好money, Younghill Kang, Carlos Bulosan, Hisaye Yamamoto, Lorna Ramchel may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101C. 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. Examination of cultural production, specifically literature, produced by queers after Stonewall rebellion in New York in 1969, widely regarded as origins or beginning of modern lesbian and gay rights movement in U.S. Writings and films by such authors as Andrew Holleran, Leslie Feinberg, Achy Obejas, Essex Hemphill, Danez M. Johnson, Marilyn M. K. Thomas, 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.

M101D. Studies in Queer Literatures and Cultures. (5) (Same as Gender Studies M105D 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 focus on particular problem or issue in terms of its relationship to queer culture and writings. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M102A. Historical Survey of African American Literature. (5) (Same as Asian American Studies M112A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of African American literature other than colonial. 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.

M102B. Contemporary African American Literature. (5) (Same as Asian American Studies M112B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of African American literature other than colonial. Works by such authors as Edith E要做好money, Younghill Kang, Carlos Bulosan, Hisaye Yamamoto, John Okada, Frank Chin, and Maxine Hong Kingston. P/NP or letter grading.

M105A. Early Chicana/Chicano Literature, 1400 to 1920. (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/Chicano literature from its origins to 1920. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105B. Early Chicana/Chicano Literature from the Mexican Revolution to el Movimiento, 1920 to 1970. (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 the Mexican Revolution to the Chicano Movimiento, 1920 to 1970. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105C. Chicana/Chicano Literature since el Movimiento, 1970s to Present. (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 20th-century Chicana/Chicano civil rights movement; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work with agency involved with Chicana/Chicano/Latina/Latino community and selected by instructor. P/NP or letter grading.

M105E. Studies in Chicana/Chicano and/or Latina/ Latino Literature. (5) (Same as Chicana and Chicano Studies M105E.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Topics to be announced may be repeated for credit with topic or instructor change. P/NP or letter grading.

M105S. Seminar: Chicana/Chicano and/or Latina/Latino Literature—Service Learning. (5) (Same as Chicana and Chicano Studies M105S.) Seminar, three or four hours; field placement, three or four hours. Enforced requisite: English Composition 3 or 3H. Specialized studies in Chicana/Chicano and/or Latina/Latino literature on various topics related to Chicana/Latina communities in Southern California, including Chicana/Chicana visions of Los Angeles; immigration, migration, and ethnic autobiography and Chicana Chicano journalism; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work with agency involved with Chicana/Chicana/Latina/Latino community and selected by instructor. P/NP or letter grading.

106. Studies in Native American and Indigenous Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of Native American and/or transnational indigenous literary and cultural expression. Topics may include oral traditions and historiography; digital, print, and new media; and cultural production in place in comparative perspectives, and multiple genres and forms 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.

M107A. Studies in Lesbian and/or Latina/Latino Literature. (5) (Same as Gender Studies M107A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study and examination of literary and cultural production through lens of gender and sexuality. Depending on instructor, emphasis may be historical, regional, national, or thematic, 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 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 or 3H. Study of lesbian and/or Latina/Latino literature from different lenses of identity and representation such as race and ethnicity. May be repeated for credit with topic or instructor change. P/NP or letter grading.
110A. Writing in English Major: Analytical. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of certain English compositions. May be repeated for credit with topic or instructor change. P/NP or letter grading.

110B. Writing in English Major: Adjunct. (2) Seminar, two hours. Students must be concurrently enrolled in a writing skills course. Brings together students enrolled in core seminars. P/NP or letter grading.

111A. History of English Language. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. English language from Indo-European time to present. Topics may include vocabulary of modern English. 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. Study of topics in Hebrew Bible/Western canon, with attention to particular literary themes, mingled with historical and social modes of interpretation. Discussion of influence of Bible on discrete periods or individual authors in literatures in English. May be repeated for credit with topic or instructor change. P/NP or letter grading.

112A. Oral Tradition. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of myth, dramatic origins, oral epic, folktale, and ballad. P/NP or letter grading.

112B. Celtic Mythology. (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 modern issues and folkloristic methods. P/NP or letter grading.

112C. Food and Fantasy in Irish Tradition and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of Irish authors (deuteronomical, apocryphal, gnostic, etc.), with emphasis on literary devices and narrative structures in relation to Judeo-Christian historical, political, psychological, philosophical, and theological themes. 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 literature, the vocabulary of modern English, and modern developments in English composition. P/NP or letter grading.

113B. Introduction to Electronic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of electronic literature, its development, and its influence on print-based works influenced by digital culture. May be repeated for credit with topic 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 evolution of aesthetic forms, changing concepts of dramatic personae, matter of literary influence, and complex relationship of individual lyric speakers with their social 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. Examination of the specific styles and genres of American literature and culture, as well as process, rewriting, and argument; minimum 15 to 20 pages of writing required. May not be repeated for credit. 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. Readings in literature of British masses, 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 historical developments and development of types of children's literature, folklore and oral tradition, criticism, illustration, and bibliography and/or analysis and evaluation of literature intended mainly for students in junior and senior high schools. P/NP or letter grading.

115D. Detective Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of English and American detective fiction and methods of detection. 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.

M115SL. Community-Based Studies of Popular Literature. (5) (Same as Community Engagement and Social Change M1110SL) 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 popular fiction and book club culture, with attention to contemporary communities of readers and writers and formation of civil society. Topics vary and may include children's literature and childhood literacy, popular 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.

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, medium), typographic, 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 technology, interactive hypertext, animated and interactive poetry, multimedia works, video game narrative, and works employing network protocols and print-based works influenced by digital culture. May be repeated for credit with topic change. 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 in English dealing with exploration, 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, philosophy, music, photography, visual studies, psychology. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118B. Literature and Other Arts. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Investigation of relationship of literature to one or more other arts, including music (opera, musical theater, popular music, jazz), painting, photography, other visual arts, music, dance, architecture. Topics vary and 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 include adaptation, visual analysis, word and image, image and culture, film 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 literary and environmental issues forced requisite: courses 10A, 10B, or 10C. Recommended: courses 120, 121. Exploration of theories of history and historicism that offer productive approaches to literary texts. Investigation of how theorists negotiate between abstract concepts of history and the specifics of the literary texts. Histo- ries are constructed, trooped, and given authority, how histories constitute past and present in relationship to each other. Consider the two questions: what shape 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: English Composition 3 or 3H. Exploration of place of literary im- agination 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 postmodern fu- ture, and tourism, and globalizing nation in making of cities. Service learning component includes meaningful work with local nonprofit organizations selected in advance by instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

119. Literary Cities—Service Learning. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Introduction to interdisciplinary field of food studies, with focus on how literature, art, science writing, and visual culture intersect with food studies, agriculture in specific contexts. P/NP or letter grading.

119L. Literary Cities—Service Learning. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of relation- ship between literary and religious practices and tradi- tions. Topics may include legacies of monotheism, theories of sacrifice, sacrament, gift, and mystical tradi- tions, as well as history of allegory and theological approaches to reading. Selected topics may address literary texts that are treated in cultural anthropology, philosophy, and critical theory. 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 relation- ship between literary, philosophical, religious, and/or psycholog- ical violence, and the literary production of violence. Critical approaches to anthropological, politi- cal justifications, cultural sublimations, and literary uses and critiques of violence. P/NP or letter grading.

126. 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). Enforced requisite: English Composition 3. Recommended: 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 culture. Readings to be interdisciplinary, with possible emphasis on difference, gender and sexuality on specific historical cultures. May be repeated for credit with topic or instructor change. P/NP or letter grading.

127. Performance, Media, and Cultural Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, or 11 and 87. Investigation of texts and ideas in history of aesthetics, critical theory, and interpretation. Topics may include Marxism, psychoanalysis, semiotics, structuralism, poststruc- turalism, feminism, and postcolonialism. May not be repeated for credit. P/NP or letter grading.

129. Topics in Genre Studies, Interdisciplinary Studies, and Critical Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C, or 11 and 87. Recommended: courses 120, 121. Taking its model from Descartes, Kant, Schiller, and Hegel. May not be repeated for credit. P/NP or letter grading.

130. Introduction to Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Introduction to main theoretical issues in post- colonial literature, with focus on contemporary litera- ture and writings produced after decolonization, often engaging history of British or other empires with em- phasis on Holocene, ancient history, the Caribbean, South Asia, and indigenous Pacific. May not be repeated for credit. P/NP or letter grading.

131. Studies in Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Recommended: course 130. Survey of how colonialism and decolonization have shaped literary and cultural expression, with specific emphasis on re- gional or thematic concerns. Topics may include litera- tures of Africa and African diaspora, environment and empire, Caribbean contact zones, or literatures of in- digenous Pacific. 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). Enforced requisite: courses 10A, 10B, and 10C, or 11 and 87. En- dorsements: courses 10A, 10B, and 10C. Study of how cultural imperialism has shaped literary and cultural expression, with specific emphasis on re- gional or thematic concerns. Topics may include litera- tures of Africa and African diaspora, environment and empire, Caribbean contact zones, or literatures of in- digenous 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). Enforced requisite: courses 10A, 10B, and 10C, or 11 and 87. Study of literatures of Atlantic to examine cul- tural and historical period or may adopt thematic approach, such as Oral-transformations among indigenous, African, and other parts writers. 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). Enforced requisite: courses 10A, 10B, and 10C, or 11 and 87. Examination of how conceptual frameworks of na- tionalism and empire, modernization, and globalization, and the relationship between literary and national identity. Other topics include nation building in relationship to regional identities as well as dis- courses of national expansion, diaspora, resettlement, and exile and foundational narratives of nation in relation- ship to representations of mobility. Genres may include epic, romance, travel narrative, novel, and autobio- graphy. 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 requisite: courses 10A, 10B, and 10C, or 11 and 87. Examination of how critical frameworks of na- tionalism and empire, modernization, and globalization, and the relationship between literary and national identity. Other topics include nation building in relationship to regional identities as well as dis- courses of national expansion, diaspora, resettlement, and exile and foundational narratives of nation in relation- ship to representations of mobility. Genres may include epic, romance, travel narrative, novel, and autobio- graphy. 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). Enforced requisite: English 405 or 4H. Weekly exercises in writing of poetry, with practice in standard forms and meters and study of techniques. Classroom discussion based
on student work. 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.

137. Creative Writing: Short Story. (5) Seminar, three hours. Enforced requisites: English Composition 3 or 3H, ESL 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 work presented. Enrolment in more than one section per term not permitted. May be repeated for credit with topic or instructor change. P/NP or letter grading.

138. Topics in Creative Writing. (Formerly numbered 138B.) (Same as English Composition 138.) Seminar, three hours. Requisite: English Composition 3 or 3D or 3D5 or 3D6. Introductory workshop in genre(s) of instructor choice, that may include mixed genres, playwriting, screenwriting, literary nonfiction, or others. Enrollment in more than one section per 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: English Composition 3. Specialized study of work of one single Anglophone poet, dramatist, prose writer, or novelist. May be repeated for credit with topic or instructor change. P/NP or letter grading.

140A. Chaucer: Canterbury Tales. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of Troilus and Criseyde and selected minor works of Chaucer, such as Book of the Duchess, House of Fame, Parliament of Fowls, etc. P/NP or letter grading.

140B. Chaucer: Troilus and Criseyde and Selected Minor Works. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, Intensive study of Troilus and Criseyde and selected minor works of Chaucer, such as Book of the Duchess, House of Fame, Parliament of Fowls, etc. P/NP or letter grading.

141A. Early Medieval Literature. (5) (Formerly numbered 141.) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B. Major periods and prose of early medieval Britain, including epic, romance, history, saints’ lives, and travel literature. Texts and topics include Beowulf, Vikings, poems on women, Beed, and King Alfred. P/NP or letter grading.

141B. Introduction to Old English Language and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B. Introductory study of Old English language and literature, including in translation, reading and translation of poetry and prose, and discussion of literatures and cultures of Anglo-Saxon England. P/NP or letter grading.

141C. Topics in Old English. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 141B. Intensive study of Old English literature in original language. Texts and topics may include Beowulf, Vell, Beowulf, monsters, medieval writing, etc. May be repeated for credit with topic or instructor change. P/NP or letter grading.

141R. Early Medieval Literature: Research Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Major poetry and prose of early medieval Britain, including epic, romance, history, saints’ lives, and travel literature. Substantial research component included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

142. Later Medieval Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Reading and historical exploration of late medieval British literature (e.g., Gawain-poet, Langland, Gower, Margery Kempe, Malory, miracle and morality plays, prose, and lyrics). P/NP or letter grading.

142R. Later Medieval Literature: Research Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Reading and historical exploration of later medieval British literature (e.g., Gawain-poet, Langland, Gower, Margery Kempe, Malory, miracle and morality plays, prose, and lyrics). Substantial research component included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

143. 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.

144. Medieval Romance and Literatures of Court. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of devotional and complex literary, religious, and political background, including analysis and discussion of his long major poem, The Canterbury Tales. 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 interactions with traditions of dissent in medieval English. Topics include religious drama, vision, conversion narrative, interreligious debates, heresy trials, and Lollard manifestos and translations. Texts may include Dream of Rood, South English Legendary, Ancrene Wisse, Piers Plowman, Lollard writings, macro- plays, Wakefield cycle, Showings of Julian of Norwich, and Book of Margery Kempe. May be repeated for credit with topic or instructor change. P/NP or letter grading.

146. Medieval Story Cycles and Collections. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of medieval court culture, exploring concepts of nobility, governance, love, loyalty, and power in range of genres: romance, courtly lyric, debate, satire. Texts may include Beowulf, Lais of Marie de France, Sir Gawain and Green Knight, Pearl, and Malory’s Morte Arthure. May be repeated for credit with topic or instructor change. P/NP or letter grading.

147. Medieval Histories, Chronicles, and Records. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Investigation of medieval history writing as literary tradition. Medieval history cycles engage in complex literary conversations across medieval cultures, periods, genres, and languages, while story collections frame to invite self-consciousness about powers of literary production itself. Texts may include cycles such as texts gathered as Matter of Britain, Matter of Rome, or Matter of France, also Malory; medieval collections such as Aucunichlein manuscript or Exeter book, framed narratives such as Decameron, Canterbury Tales, 1001 Nights, and Gower’s Confessio Amantis, or collections of essays, legends, and more. May be repeated for credit with topic or instructor change. P/NP or letter grading.

148. 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 complex interactions between different ethnic, social, cultural, and political groups. Examination of processes of intercultural encounter and transmission: classical or patrician traditions into medieval culture, crusade, travel literature, and literature of contact zones, including interactions between Celtic, Anglo, and Norman societies, and debates between Pagan, 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. Examination of postmedieval production of Middle Ages as content, form, and representational premise of scholarship, 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 medieval studies and its links to nationalism, notable medi evalists and their work, and uses of Middle Ages in popular culture from Umberto Eco to Tolkien, Robin Hood, and Monty Python. 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. In- tense study of selected poems and representative comedies, histories, and tragedies through Hamlet. P/NP or letter grading.

150B. Shakespeare: Later Plays. (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. Study of major works in their cultural context. May be repeated for credit with topic or instructor change. P/NP or letter grading.

155. Renaissance Subjects. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Literary representations of personhood in early modern period, with attention to issues of identity as personal, social, and cultural. May be repeated for credit with topic or instructor change. P/NP or letter grading.
cific topic such as varieties of Manichaeism, art of confession, or conversion narratives. May be repeated for credit with topic or instructor change. P/NP or letter grading.

157. Translation and Innovation in English Renaissance and Early Modern Period. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: 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, forerunners of novel, Renaissance humanisms, literature of love, monsters and marvels, representing nature, Ovidian figures, and may be repeated for credit with topic or instructor change. P/NP or letter grading.

159. Topics in Literature, circa 1500 to 1700. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Examination of literature from or on an assigned time period. Consult Schedule of Classes for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

159R. Topics in Literature, circa 1500 to 1700: Research, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Study of literatures from this period and conventions of literary research. Substantial research on a specific topic may be required. Consult Schedule of Classes for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

160. Romantic Literature and Earlier 18th Century. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Study of major works as literary documents and as products of Restoration and earlier 18th-century thought. P/NP or letter grading.

160B. Literature of Later 18th Century. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Study of major works as literary documents and as products of later 18th-century thought. P/NP or letter grading.

161A. Poetry in English to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Consideration of poetry across genres and throughout period. Topics may include rise of satire, verse forms including Psalmic ode, mock-epic, and verse-epistle, questions of literary imitation and originality, poetry’s relationship to empire, and gender and authorship. May be repeated for credit with topic or instructor change. P/NP or letter grading.

161B. Drama in English to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Survey of drama in English until 1850. Requisites: courses 10A and 10B, or 11 and 87. Historical survey of major literary works engaged with 19th-century global formation, with emphasis on themes that express distinctive colonial identities, myths, and religious visions. P/NP or letter grading.

163A. Earlier Romantic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Study of middle decades of 19th century. Readings enable students to understand legacies of 18th-century and Romantic writing and emergence of new forms such as dramatic monologue and novel-inverse. P/NP or letter grading.

163B. 19th-Century Critical Prose. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Study of major works that have traditionally been identified as American classics and asks both what makes American literature American and what are its relationships among and between different revolutionary currents—political, economic, and aesthetic—in British Romantic period, developing readings of literary texts that situate them in revolutionary context out of which they emerged, and to which they contributed in turn. Recovery of sense of how literary and extra-literary texts emerged in common relationship; development of deeper understanding of nature of Romanticism itself. Readings from work of Blake, Wordsworth, Coleridge, Southey, Austen, Byron, Keats, Wollstonecraft, and others. May not be repeated for credit. P/NP or letter grading.

163C. Jane Austen and Her Peers. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Coverage of six novels of Jane Austen; novels that most influenced her: Mary Wollstonecraft’s Vindication of Rights of Woman, Gothic novel, and Maria Edgeworth’s Belinda. P/NP or letter grading.

164A. Earlier 19th-Century Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Developments in English poetic genres from time of Napoleonic Wars to middle decades of 19th century. Readings enable students to understand legacies of 18th-century and Romantic writing and emergence of new forms such as dramatic monologue and novel-inverse. P/NP or letter grading.

164B. 19th-Century Critical Prose. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Study of major works that have traditionally been identified as American classics and asks both what makes American literature American and what are its relationships among and between different revolutionary currents—political, economic, and aesthetic—in British Romantic period, developing readings of literary texts that situate them in revolutionary context out of which they emerged, and to which they contributed in turn. Recovery of sense of how literary and extra-literary texts emerged in common relationship; development of deeper understanding of nature of Romanticism itself. Readings from work of Blake, Wordsworth, Coleridge, Southey, Austen, Byron, Keats, Wollstonecraft, and others. May not be repeated for credit. P/NP or letter grading.

165. Gender, Sexuality, and Body, 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Examination of question of gender in literature of period known for its invention of sex/gender system. Topics may include varied representations of gender and sexuality across period, gender and authorship, and literature of embodiment. May be repeated for credit with topic or instructor change. P/NP or letter grading.

166C. Colonial Beginnings of American Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A and 10B, or 11 and 87. Historical survey of American literatures of discovery and exploration, and settlement, with emphasis on themes that express distinctive colonial identities, myths, and religious visions. P/NP or letter grading.

166D. American Literature, 1776 to 1832. (5) Lecture, four hours; discussion, one hour (when scheduled). 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.

167A. American Poetry to 1900. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A and 10B, or 11 and 87. Historical survey of American literatures from Revolution through early republic, with emphasis on genres that reflect systematic attempts to create representative national literature and attention to American ethnic, gender, and postcolonial perspectives. P/NP or letter grading.

167B. American Fiction to 1900. (5) Lecture, four hours; discussion, one hour (when scheduled). 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.

168. Major American Writers. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A and 10B, or 11 and 87. Broad survey of representative American writers across several centuries, designed to give concise account of broad narrative of American literary development, from 18th to 20th centuries. Includes major works that have traditionally been identified as American classics and asks both what makes American literature distinctive and what its relationships are to other literatures. P/NP or letter grading.

169. Topics in Literature, circa 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Examination of literatures from or about this time period for credit. Consult Schedule of Classes for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.
170A. American Literature, 1865 to 1900. (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 end of Civil War to beginning of 20th century, including writers such as Howells, James, Twain, Norris, Dickinson, Crane, Chesnutt, Gilman, and others working in modes of realism, naturalism, and veranacular prose, and poetry. P/NP or letter grading.

170B. American Literature, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). 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.

174A. American Fiction; 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American novels and short stories since 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). 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). 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 aesthetic. 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, 10C. Study of American nonfictional prose (essays, autobiographies, travel narratives, and other). Particular genre and/or historical period 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). Requisites: courses 10A, 10B, 10C, or 11 and 87. Examination of primarily North American literature from hemispheric rather than nation-based perspective. Primary emphasis is on cross-disciplinary issues in relation to North American 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). Requisites: courses 10A, 10B, 10C, or 11 and 87. Examination of American literature in its relationships to other disciplines, including art, architecture, film, history, music, politics, and various social sciences, with emphasis on application of literary method to historical survey of American culture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

178. Topics in Literature, circa 1850 to Present. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, 10C, or 11 and 87. Study of literature from this time period and conventions of literary research. Substantial research component included. Consult Schedule of Classes and departmental descriptions for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

179. Topics in Literature, circa 1850 to Present: Research Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, 10C, or 11 and 87. Study of literatures from this time period and conventions of literary research. Substantial research component included. Consult Schedule of Classes and departmental descriptions for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

180. Topics in Literature and Language. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, 10C, or 11 and 87. Strongly recommended for students who plan to enroll in capstone seminars. Study of range of approaches to literature and culture. Emphasis on critical, and theoretical to equip students with skills working with primary sources, secondary criticism, and online databases. Specific literatures vary with instructors. May be repeated for credit. P/NP or letter grading.

181A. Topics in Genre Studies. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, and 10C, or 11 and 87. 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.
topics in discipline and work with faculty members on focused topic of research. Culminating paper or project and class presentation required. May be repeated once for credit with topic or instructor change. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss USIE topics. Letter grading. Individual contract with faculty mentor required. May not be repeated. Letter grading.

190H. Honors Research Colloquium in English. (1) Seminar, one hour. Enforced corequisite: course 198A or 198B. Limited to students in College Honors Program. Designed as adjunct to undergraduate lecture course. Individual 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.

193. Colloquia and Speakers' Series Undergraduate Seminars: English. (1) Seminar, one hour. Limited to undergraduate students. Discussion of current critical literature and/or creative readings by writers, artists, and scholars. Exploration in greater depth of literary topics and creative work presented through sponsored forums, speakers' series, and colloquia. May be repeated for credit. P/NP grading.

195CE. Community and Corporate Internships in English. (2-10) Lecture, variable hours. Limited to juniors or seniors and faculty members. May be repeated for credit. Individual contract required. P/NP or letter grading.

197. Individual Studies in English. (2 to 5) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between student and faculty member. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in English. (2 to 5) Tutorial, to be arranged. Limited to juniors/seniors. Development and completion of honors thesis under direct supervision of faculty member. May be repeated for credit. Individual contract required. P/NP or letter grading.

201. History of English Language. (4) Lecture, four hours. Detailed study of history, characteristics, and changing forms of English language from its origin until about 1900. S/U or letter grading.


204. Modern and Contemporary Literature. (3) Lecture, three hours. Examining major texts in history of critical theory and interpretation from pre-Socratice to Descartes, including classical literary criticism (Plato, Aristotle, Horace, Longinus), biblical hermeneutics (Bible, Midrash, St. Paul, St, Augustine, St. Thomas Aquinas), and medieval and Renaissance theories of interpretation (Danse, Boccaccio, Sidney). S/U or letter grading.

210. Gender and Sexualities and Critical Practices in Enlightenment to Decadence. (4) Lecture, three hours. Continuation of course 201, proceeding from neoclassical and Enlightenment critical theory through Victorian and deconstructive and literary criticism. Readings may include texts by Rousseau, Dryden, Pope, Hume, Kant, Schiller, the Schlegels, Coleridge, Hegel, Schelling, Arnold, Pater, Wilde, and Nietzsche. 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.

214. Old English Grammar. (4) Lecture, four hours. Detailed study of Old English grammar, history of, and scholarship on, particular oral traditional genre (e.g., ballad, song, epic, proverb, riddle, folktale, legend) or set of closely related oral traditional genres. S/U or letter grading.

215. Development and Issues in Modern Critical Thought. (4) Lecture, 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 Adorno, Levi-Strauss, Lacan, Barthes, Derrida, Deleuze, Fanon, Foucault, Ingraray, Lyotard, Bourdieu, and Bhabha. S/U or letter grading.


220A. Study of Oral Tradition: 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 Homer and ancient Greece to origins of vernacular literature, European romantic (re)discovery of oral tradition, 20th-century heuristic models of oral composition, and modern electronic media and popular verbal genres, such as joking and rapping. S/U or letter grading.

225B. Collecting Oral Tradition. (4) (Same as Scandinavian M272.) Seminar, three hours. Description and evaluation of current 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.

225C. Study of Oral Traditions: Genres. (4) (Same as Scandinavian M273.) Seminar, three hours. Exploration in depth of and scholarship on, particular oral traditional genre (e.g., ballad, song, epic, proverb, riddle, folktale, legend) or set of closely related oral traditional genres. S/U or letter grading.

226. History of English Language. (4) Lecture, four hours. Detailed study of history, characteristics, and changing forms of English language from its origin until about 1900. S/U or letter grading.

227. Old English. (4) Lecture, four hours. Study of Old English grammar, history of, and scholarship on, particular oral traditional genre (e.g., ballad, song, epic, proverb, riddle, folktale, legend) or set of closely related oral traditional genres. S/U or letter grading.

228. 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.

229. Modern and Contemporary Literature. (3) Lecture, three hours. Examining major texts in history of critical theory and interpretation from pre-Socratice to Descartes, including classical literary criticism (Plato, Aristotle, Horace, Longinus), biblical hermeneutics (Bible, Midrash, St. Paul, St, Augustine, St. Thomas Aquinas), and medieval and Renaissance theories of interpretation (Danse, Boccaccio, Sidney). S/U or letter grading.


250. Restoration and 18th-Century Literature. (4) Lecture, three hours. Study of English poetry and prose, 1660 to 1800; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

251. Romantic Writers. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

252. 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.

253. Contemporary British Literature. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.


255. 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.

256. 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.

257. Studies in Poetry. (4) Lecture, three hours. Studies in various themes and forms of poetry from Old English to present; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

258. Studies in Novel. (4) Seminar, three hours. Studies in evolution of genre from its beginning to present; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

259. Studies in Criticism. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.


260A. Topics in Asian American Literature. (4) (Same as Asian American Studies M260A) Seminar, three hours. Graduate seminar that examines and critically evaluates writings of Asian Americans. May be repeated for credit. S/U or letter grading.

261. Studies in Chicana/Chicano Literature. (4) (Same as Chicana and Chicano Studies M289.) Seminar, three hours. Intensive research and study of major themes, authors, and issues in Chicana/Chicano literature and culture. Examination of political, aesthetic, economic, and cultural contexts that emerged in Chicana/Chicano discourse; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

262. Studies in Afro-American Literature. (4) (Same as African American Studies M200E) Lecture, four hours. Intensive research and study of major themes, issues, and writers in Afro-American literature, Discussions and research on aesthetic, cultural, and social backgrounds of Afro-American writing. May be repeated for credit. S/U or letter grading.

263. Celtic Literature. (4) Lecture, three hours. Preparation: knowledge of one ancient or modern Celtic language. Studies in poetry and prose of early and modern Celtic literatures, chiefly Irish and Welsh; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

264. Studies in Rhetoric. (4) Lecture, three hours. Special topics in classical and modern rhetoric, including substantial practice in rhetorical analysis of literary texts. May be repeated for credit or S/U or letter grading.

265. Postcolonial Literatures. (4) Seminar, three hours. Study of aesthetic, historical, and social backgrounds to literatures of former British colonies that became independent after 1947. General issues related to postcolonialism, imperialism, and postcolonial writing helped to shape and have been shaped by literature in English. May be repeated for credit. S/U or letter grading.

266. Cultural World Views of Native America. (4) (Same as American Indian Studies M200B.) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms—dance, art, song, religious and medicinal ritual—in selected Native American societies, as these traditional and tribal contexts have been translated into contemporary literary texts (fiction, poetry, essay, and drama). Survey, from secondary sources, of interdisciplinary methodological approaches taken from literary analysis, structural anthropology, folklore, linguistics, and ethnomusicology. May be repeated for credit with instructor's and/or topic change. Letter grading.

267. Seminar: Literary Theory. (5) (Same as Comparative Literature M294) Seminar, three hours. Advanced interdisciplinary seminar to explore philosophical, historical, and critical foundations of literary theory as well as current issues in literary and cultural studies. May be repeated for credit. S/U or letter grading.

268. Interdisciplinary Studies in 17th and 18th Centuries. (4) (Same as History M298) Discussion, four hours. Topics vary according to participating faculty. May be repeated for credit. S/U or letter grading.

269. Interdisciplinary American Studies. (6) (Same as History M299) Discussion, four hours. Readings, discussion, and papers on common theme, team-taught by faculty members from different departments. Topics vary according to participating faculty. May be repeated for credit with consent of instructors. 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 not be substituted for any departmental enrollment requirements. May be repeated for credit. S/U grading.


495A. Supervised Teaching Preparation. (4) Seminar, three hours. Required of all applicants for teaching assistantships. Introduction to teaching of literature intended to prepare teaching assistants for their first assignments in leading discussion sections. Practical concerns of creating assignments, grading papers, and holding conferences. S/U grading.

495B. Supervised Teaching Preparation. (3) Seminar, two hours. Required of all teaching assistants in their initial quarter of teaching. Mentoring and group teaching assistant/mentor conferences. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean, and host campus instructor, department chair, and graduate dean. May not be substituted for any departmental enrollment requirement for degree. Consult graduate counselor to enroll or obtain information. S/U or letter grading.

596. Directed Individual Study. (2 to 4) Tutorial, to be arranged. Limited to students preparing for first qualifying examination or engaged in independent research project. May not be applied toward any course requirement for degree. Consult graduate counselor to enroll or obtain information. S/U or letter grading.

598. Preparatory for Ph.D. Students. (1 to 12) Tutorial, to be arranged. Limited to second-stage PhD students preparing for second qualifying examination. S/U grading.
Entrepreneurship Minor

Interdisciplinary Minor
John E. Anderson Graduate School of Management
149 Kaplan Hall
Box 951330
Los Angeles, CA 90095-1530

Entrepreneurship
310-825-1389
E-mail contact
Alfred E. Osborne, Jr., PhD, Chair

Faculty Committee
Faculty Committee
Andrew G. Atkeson, PhD (Economics)
Mark J. Garmaise, PhD (Management)
Carla Hayn, PhD (Management)
Richard B. Kaner, PhD (Chemistry and Biochemistry)
Alfred E. Osborne, Jr., PhD (Management)
James W. Stigler, PhD (Psychology)
Miguel M. Uzueta, PhD (Management)
Witlee Z. Wendrich, PhD (Near Eastern Languages and Cultures)

Scope and Objectives

The Entrepreneurship minor introduces undergraduates 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, M117, 133, 156, Dance C184, Digital Humanities 101, 150, Economics 106E, 173A, 173B, Environment 163, Ethnomusicology 105, Management 162, 163, 164, 167, Sociology 72. 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

Center for Interdisciplinary Instruction
College of Letters and Science
300 La Kretz Hall
Box 951496
Los Angeles, CA 90095-1496

Environment and Sustainability
310-825-5008
Peter M. Kareiva, PhD, Director

Faculty Roster

Professors
Richard F. Ambrose, PhD
Paul H. Barber, PhD
Daniel T. Blumstein, PhD
William C. Boyd, JD, PhD
Ann E. Carlson, JD
Judith A. Carney, PhD
Yoram Cohen, PhD
Charles J. Corbett, PhD
Magali A. Delmas, PhD
Elizabeth M. DeLoughrey, PhD
J.R. DeShazo, MSc, PhD
Rajit Gadh, PhD
Thomas W. Gillespie, PhD
Hilary A. Godwin, PhD
Alexander D. Hall, PhD
Susanna B. Hecht, PhD
Ursula K. Heise, PhD (Marcia H. Howard Term Professor of Literary Studies)
Diana L. Huffaker, PhD
David K. Jacobs, PhD
Jennifer A. Jay, PhD
Peter M. Kareiva, PhD
Dennis P. Lettenmaier, PhD
Glen M. MacDonald, PhD (John Muir Memorial Endowed Professor of Geography)
Timothy Malloy, JD

James C. McWilliams, PhD
Mary D. Nichols, JD, in Residence
Gregory S. Okin, PhD
Edward A. Parson, MSc, PhD (Dan and Rae Emmett Endowed Professor of Environmental Law)
Suzanne E. Paulson, PhD
Laurent G. Pineo, PhD
Stephanie S. Pincett, PhD, in Residence
Michael L. Ross, PhD
Lawren Sack, PhD
H. Bradley Shaffer, PhD
Monica L. Smith, PhD
Thomas B. Smith, PhD
Victoria L. Sork, PhD
Michael K. Stenstrom, PhD
Irwin H. Suffet, PhD
Blairie Van Valkenburgh, PhD
Robert K. Wayne, PhD
Yifang Zhu, PhD

Professors Emeriti
Randall D. Crane, PhD
J. Nicholas Entarkin, PhD
John R. Froines, PhD
Malcolm S. Gordon, PhD
Patricia A. Gowaty, PhD
William M. Hamner, PhD
Stephen P. Hubbell, PhD
David D. Jackson, PhD
Richard J. Jackson, MD, MPH
Paul M. Ong, PhD
Antony R. Orme, PhD
Philip W. Rundel, PhD
Keith D. Stolzenbach, PhD
Richard P. Turco, PhD
Richard R. Vance, PhD
Arthur M. Winer, PhD

Associate Professors
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Allison B. Carruth, PhD (Waldo W. Neikirk Term Professor)
Shailly Mahendra, PhD
Karen A. McKinnon, PhD
Deepak Rajagopal, PhD
Pablo E. Saide, PhD
Aradhna K. Tripati, PhD

Assistant Professors
Liz Koslov, PhD
Robert Eagle Tripati, PhD
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Adjunct Professors
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James R. Greenwood, PhD
Lawrence W. Harding, PhD
Robert J. Lempert, PhD
Carl A. Maeda, PhD
Michael J. McGuire, PhD
Sasan S. Saatchi, PhD

Adjunct Associate Professors
Travis R. Longcore, PhD
Rebecca F. Shipe, PhD

Adjunct Assistant Professors
Wolfgang Buermann, PhD
Jon A. Christensen, PhD
Raffaeela D’Auria, PhD
Trevor L. Fuller, PhD
Ryan J. Harrigan, PhD
Emily L. Lindsay, PhD
Miriam E. Marlier, PhD
Kevin Y. Njabo, PhD
Kristen C. Ruegg, PhD
Xavier Swamikannu, DEnv
Virginia M. Zaunbrecher, 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 important areas of 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:Thleted 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 interdisciplinarity as the core of the program's identity, each student's program of study and dissertation research are guided by two advisors from different 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 choosing. 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.

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 Geophysics. 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

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.

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 SB), 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 (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 (and 23L), Mathematics 3C (or 32A), and Physics 5B (or 1C), plus 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 17S 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, C119, C139, 150, 153, Ecology and Evolutionary Biology 100, 109, 116, 151A, 154, Environment 121, 127, Environmental Health Sciences 100, 1235, C152D, C164, Geography 100, 102, 104, 105, M106, M107, 111, 113, M127, M131.

Social Sciences and Humanities Requirements

Required: Environment 140 and two courses from Environment M132, M133, M137, 150, M133, M155, 157, C139, 160, M161, 162, 163, M164, 166, 167, Geography M128, M137, 150, M153, 154, Philosophy 125, Public Policy C115.

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, 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. 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, 144A, 144B, C119A, C119B, 122, M127, 129, M131, 142, 151A, 152, 153, 154, 155, 162, 162L, C174, 176, 180A, 180B, any courses associated with the Field Biology Quarter or the Marine Biology Quarter or approved equivalent, Geography 102, 104, M107, 113, M115, M131 (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 Sciences 101, 112, C113, 139, 150, 153 are required.


For the environmental health concentration, Epidemiology 100, two courses from Environmental Health Sciences 100, C125, C135A, C152B, and three courses from Chemistry and Biochemistry 13A, Environmental Health Sciences C125, C140, C152D, C157, C164, 203 are required.

For the environmental systems and society minor, seven courses from Environment M109, M111, 121, M130, M132, M133, 134, M135, M137, 150, M153, M157, 159, 160, M161, 162, 163, M164, 166, M167, 186 are required.

For the geography/environmental studies minor, three courses from Geography M106, M107, M109, 110, 113, M115, 116, 122, 123, 124, 125, 126, M127, M128, 129, M131, 132, M137, 159C, 159D, 159E, 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 Environment 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 Environment 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, 310-206-9193.

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, M30, M30S, Geography 1, 2, 5.

Required Upper-Division Courses (20 units): At least five courses from Environment M109, M111, 121,
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-M18-M1CW. Food: Lens for Environment and Sustainability. (4-6)* (Same as Clusters M1A-M18-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 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 and M1AC. Lecture, three hours; discussion, one hour. Introduction to environmental science as discipline and as way of thinking. Discussion of critical environmental issues at local, regional, and global scales. Fundamental aspects 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 method 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 presented in context of current 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. (4) 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. P/NP or letter grading.

M30SL. Environmental Literature and Culture (Servic Learning). (5) (Same as English M30SL.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Examination 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 includes meaningful work with off-campus agency/agencies selected by instructor. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to students who have passed 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 course lecture instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Maximum of 4 units. Enforced requisite: Contract corequisite. Honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research and/or independent research). Enrolled in context of creating sustainable human society. Topics may include biodiversity, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change. Service learning component includes meaningful work with off-campus agency/agencies selected by the instructor. P/NP or letter grading.

Upper-Division Courses

M109. Human Impact on Biophysical Environment. (4) (Same as Geography M109.) Lecture, three hours; reading period, one hour. Designed for seniors. Examination of history, mechanisms, and consequences of interactions between humans and environment. Exploration of three-dimensional topics (deforestation, desertification, and greenhouse gas increase and ozone depletion) and four major subjects (soil, biodiversity, water, and landforms). P/NP or letter grading.


M114. Soil and Water Conservation. (4) (Same as Geography M114.) Lecture, three hours; discussion, one hour. Enforced requisite: one course from course 10, Geography 1, 2, Life Sciences 7B. Designed for juniors/seniors. Systematic study of processes of and hazards posed by erosion, sedimentation, 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.

121. Conservation of Biodiversity. (4) Lecture, three hours; discussion, two hours. Enforced requisite: two courses with credit for Ecology and Evolutionary Biology 116. Examination of interrelation of natural biotic and human systems. Description of distribution of biodiversity and the ways in which it is conserved by humans. Critical analysis of various levels of threats and multidimensional challenges required for mitigating threats. Letter grading.

M127L. Soils and Environment, Field. (1) (Same as Ecology and Evolutionary Biology M127 and Geography M127L.) Laboratory, one hour; field excursions. Corequisite: course M127. Investigation of demonstrations supporting material in course M127, including excavating, describing, and naming soils in field, soil forming processes, geomorphology, and soils and climate.

M130. Environmental Change. (4) (Same as Geography M130.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of natural forces producing environmental changes over past half million years. Course addresses causes and reactions of environmental changes reflecting past conditions. Effects of environmental change on people. Increasing importance of human activity in environmental modification. Focus on impact of natural and anthropogenic changes on forests, P/NP or letter grading.

M132. Environmentalism: Past, Present, and Future. (4) (Same as Geography M130 and Urban Planning M165.) Lecture, three hours; discussion, one hour. Examination of historical periods and modern movements that are environmental ideas, movements or countermovements they spawned, and new and changing nature of modern environment. Consideration of 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 environmental thought and contemporary environmental questions as they relate to broader 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.

M133. Environmental Sociology. (4) (Same as Sociology M133 and Sociology M115.) Lecture, three hours; discussion, one hour. Relationship...
between society and environment. Analysis in detail of interrelations between social factors (such as class, race, gender, and religion) and environmental factors, and state's pioneering efforts in regulation, California's long-standing leadership role in air pollution control, and state government to address these issues. Focus on how to design efficient public policies. (4) 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 approach. Invited scholars present research aimed at yielding policy-relevant results on various topics such as climate change, pollution, and transport. P/NP or letter grading.

161. Global Environment and World Politics. (4) (Same as Political Science M122B.) Lecture, three or four hours; discussion, when offered. 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 emphasis on applications that are vital for implementing environmental solutions in private, public, and nonprofit settings. Topics include basic elements of finance, project evaluation, financial planning, and marketing. Development of entrepreneurship skills to recognize opportunity and transfer ideas into viable projects that are better for environment and that benefit people and communities. Case studies used to equip students with tools necessary to successfully execute environmental goals and objectives. P/NP or letter grading.

163. Business and Natural Environment. (4) Lecture, three hours. Examination of role of business in mitigating environmental degradation and incentives to businesses. Focus on methodology of LCA, including analytical frameworks and quantitative techniques for systematically and holistically evaluating environmental trade-offs presented by different alternative. Students perform life-cycle assessment (LCA) to compute various material inputs and environmental releases from all activities associated with life cycle (i.e., raw material extraction, processing, end use, 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.

166. Leadership in Water Management. (4) Lecture, three hours; discussion, one hour. Focus on increasing awareness and understanding of management and policy issues. Emphasis on solutions involving integrated water supply and wastewater systems. Leadership development through written instruction and negotiations and media training. P/NP or letter grading.

167. Environmental Justice through Multiple Lenses. (4) (Same as Urban Planning M167.) Lecture, three hours. Examination of intersection between race, economic class, and environment in U.S., with focus on issues related to social justice. Because environmental inequality is highly complex phenomenon, multidisciplinary and multipopulation 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. Study of current topics in environmental science, including colloquium series and field trips. May be repeated for credit. P/NP grading.

175. Programming with Big Environmental Datasets. (4) Lecture, three hours. Requisites: Life Sciences 4, Mathematics 12 or 13, or Statistics 10, 12, 13, or 1B. University experience conducting empirical research by learning how to program using R. Modern empirical research often requires use of powerful statistical software like R. This programming language shares similarities with other statistical programs, providing students with valuable labor-market skill. P/NP or letter grading.

180A. Practicum in Environmental Science. (4) Lecture, three hours; discussion, two hours. Required requisite: 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 requisite to 180C. Limited to junior/senior Environmental Science majors. Involves site investigations, original data collection and analysis, mapping and geographic information systems, and environmental policy and law issues. Case study to be defined and conducted with collaboration of 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. Case study to be defined and conducted with collaboration of local agency or nonprofit institution. Letter grading.

185A. Sustainability Talks. (1) Lecture, two hours. Analysis of principles of sustainability through series of lectures and films by 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, four hours. Investigation of issues of campus sustainability, including energy efficiency, transportation, waste stream management, sustainable food practices, and more by student research teams that, together with faculty members and UCLA staff, strive to make UCLA more sustainable. May be repeated for credit. Letter grading.

185C. Sustainability Action Leaders. (3) Seminar, two hours. Student lead research teams to investigate issues of campus sustainability, including energy efficiency, transportation, waste stream management, sustainable food practices, and more to generate coalition of student researchers that, together with faculty members and UCLA staff, strive to make UCLA more sustainable. Letter grading.

186. Comparative Sustainability Practices in Local/Global Settings. (4) Fieldwork, four hours. Guided fieldwork and comparative analysis used to assess local sustainability practices and policies in diverse regional or international settings. Emphasis on comparing role of local and regional culture, geography, economic climate, and governmental policies on sustainability awareness and practices. Use of observations, interviews, and unobstructive measures to document and analyze role and influence of local/global context on sustainability behavior of individuals, small businesses, and other institutions in everyday life. Letter grading.

188A-188B. 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, such as those taught by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled concurrently in 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 concurrently in 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. Enrolled concurrently in Honors College 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.

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 approved course material. 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 approved course material. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

M192. Undergraduate Practicum in English: Journals. (2) Same as English M192 and English Composition M192.) Seminar, two hours. Training and supervised practicum for undergraduate student editors of campus journals supervised by faculty members in English, Institute of the Environment and the Sustainability, and/or Writing Programs. May be repeated for credit. P/NP or letter grading.

193. Journal Club Seminars: Environment. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature of field. May be repeated for credit. P/NP grading.

195. Community or Corporate Internships in Environmental Science. (2 or 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to juniors/senior. Internship in supervised setting in community agency or business related to environmental science and/or sustainability. Students meet on regular basis with faculty supervisor and provide periodic reports. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required; consult undergraduate advisor. P/NP grading.

199. Honors Research in Environmental Science. (2 to 4) Tutorial, four hours. Limited to junior/senior Environmental Science majors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Must be for new topic and total of at least 8 units. May be repeated for credit. Individual contract required. Letter grading.

199D. Directed Research in Environment. (2 to 4) Tutorial, two hours. Preparation: submission of written proposal outlining study or research to be undertaken. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Progress report must be submitted to faculty mentor at end of term. Culuminating paper or project required. May be repeated for credit, but only 4 units may be taken each term. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200B. Issues and Methods in Environment and Sustainability. (4–4) Seminar, four hours. Course 200A is requisite to 200B. Examination of interdisciplinary case studies that approach problems in environment and sustainability as issues with scientific, social, economic, political, philosophical, ethical, historical, cultural, and policy dimensions. Case studies illustrate use of qualitative and quantitative methods of analysis drawn from natural sciences, social sciences, and humanities. Emphasis on conceptual frameworks for defining environmental problems and implementation of research results in solving real-world problems. S/U 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 presentation skills, 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 facility 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 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.

254. Science Communications and Environmental Media. (4) 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 forms (in addition to new realism, documentary, social media, virtual reality, etc.), and to develop collaborative projects communicating student 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. Recommended preparation: introductory course in industrial ecology, ecological economics, environmental economics, business and management, or public policy analysis. Public discourse about 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-level (products, individual consumption of usefulness and limitations of various metrics as guide for public and private decision making. S/U or letter grading.

259. Life-Cycle Assessment. (4) Lecture, three hours. Requires: Life Sciences 30A and 30B, or Mathematics 3A and 3B (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 systems analysis of life cycles for entire economic system. May be repeated for credit. P/NP grading.
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Scope and Objectives
The Department of Environmental Health Sciences focuses its research and educational activities on the protection of human health from biological, chemical, and physical hazards in the environment. Its graduates are scientists, professionals, and leaders capable of identifying and measuring stressors of environmental concern; evaluating the health, environmental, and all other impacts of such stressors; developing means for their effective management; and evaluating alternative policies directed at improving and protecting health and the environment. Such training is accomplished through several degree programs that offer specialized study in selected academic areas of environmental health sciences such as air pollution, environmental biology, environmental chemistry, environmental policy, toxicology, built environment and health, climate and health, industrial hygiene, and water quality. Graduates of the department pursue careers in the private or public sector as researchers, educators, managers, policymakers, and/or practitioners.

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. 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.

89RC. 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. Introduction to Environmental Health. (4) Lecture, three hours; discussion, one hour. Preparation: one course each in chemistry and biology. Introduction to environmental health, including coverage of sanitary principles and chronic and acute health effects of environmental contaminants. P/NP or letter grading.
101. Fundamentals of Chemistry in Environmental Health. (2) Seminar, one hour; discussion, one hour. Designed for undergraduate students in Public Health minor or master's and doctoral students in Fielding School of Public Health. Ideal for students who feel that their background in chemistry is not strong enough and are planning to take course 100, C200A, C200B, or 200C or are concurrently enrolled in one of those courses. Interactive seminar with focus on critical concepts in chemistry. Emphasis on students need to take environmental health sciences courses. P/NP S/U, or letter grading.

C125. Atmospheric Transport and Transformations of Airborne Particles. (4) Lecture, four hours. Preparation: one year of calculus, one course each in physics, organic chemistry, and physical 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 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. Limited to senior undergraduate 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 implementation of public policy as a vehicle of disciplines and viewpoints. Focus on traditional command and control regulation (including self-executing performance standards and permitting), market-based regulation (such as emissions trading), and emerging regulatory approaches such as management-based regulation and alternative assessments. Issues of compliance and enforcement. Concurrently scheduled with course C235. 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 properties. Concurrently scheduled with course C252D. P/NP or letter grading.

C157. Risk Assessment and Standard Setting. (4) Seminar, four hours. Requisites: course C140, Epidemiology 100. 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 166. Seminar, four hours; discussion, two hours; outside study, six hours. Recommended requisites: Civil Engineering 153. Microbial cell and its metabolic capabilities, microbial genetics and its potential use, and resistance of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, probing of microbes, public health microbiology, pathogen control. Letter grading.

M166L. Environmental Microbiology and Biotechnology Laboratory. (1) Same as Civil Engineering M166L. Laboratory, two hours; outside study, two hours. Corequisite: course M166. General laboratory practice within environmental microbiology, sampling of environmental samples, classical and modern molecular techniques for enumeration of microbes from environmental samples, techniques for determination of microbial activity in environmental samples, laboratory setup 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 describing how topics relate to health on biochemical and molecular basis. Emphasis on scientific aspects of originating, analyzing, and presenting environmental sciences topics, the application of scientific principles to real-world problems and ability to communicate effectively with different stakeholders. Concurrently scheduled with course C200A. Letter grading.

C185B. Foundations of Environmental Health Sciences for Public Health Professionals. (6) Lecture, six hours. Preparation: one year of undergraduate biology and chemistry. Introduction to field of environmental health sciences designed for students pursuing MPH degree in Environmental Health Sciences. Examination of series of topics that cover scientific principles of field, as well as translation of science to environmental health practice. Topics include physical, chemical, and biological hazards, as well as risk assessment and communication. Acquisition of skills important for public health professionals, such as application of scientific information to real-world problems and ability to communicate effectively with different stakeholders. Concurrently scheduled with course C200B. Letter grading.

C185C. Foundations of Environmental Health Sciences. (6) Lecture, four hours; group project, two hours. Enforced requisites: course C185A or C185B. Multidisciplinary aspects of environmental health sciences. Emphasis 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 C200C. Letter grading.

C200. Foundations of Environmental Health Sciences for Public Health Professionals. (6) 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 key details of environmental health law, regulatory frameworks, communication strategies, 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 C200A or C200B and C200C. Emphasis on health effects of air, water, environmental pollutants on man and review of research literature. May be repeated for credit. Letter grading.


203. Seminar: Ecotoxicology. (2) Seminar, two hours. Discussion of various topics in ecotoxicology. Topics may vary from term to term and include aspects of environmental chemistry, toxicology, and ecology. May be repeated for credit. S/U grading.

204. 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 (outdoor, indoor, personal, biomarkers), and multimedia sources of exposure. S/U grading.

205. Environmental Health Sciences Doctoral Seminar. (2) Seminar, two hours. Introduction to environmental health sciences doctoral students. Presentation of current research of environmental health sciences doctoral students. May be repeated for credit. S/U 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
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M241. Advanced Concepts in Gene-Environment Interactions. (Same as Molecular Toxicology M247.) Lecture; three hours; discussion; one hour. Comprehensive and practical examination of emerging science of gene-environment interaction. Discussion of primary etiologic factors, including role of metabolic pathways in modifying environmental responses and importance of environmental influences in human disease. Exploration of selected hot topics infilling, such as genetics, epigenetics and of microbiome. S/U or letter grading.

M242. Toxicodynamics. (Same as Molecular Toxicology M242.) Lecture; one hour; discussion; one hour preparation; undergraduate biology and chemistry courses. Requisites: course C242. 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/on homeostasis, intracellular pH and calcium regulation, stress and adaptive pathways, DNA repair/mutagenesis, carcinogenesis, and teratogenesis. Discussion of various papers. S/U or letter grading.


252E. 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 and other substances 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 preparation: one year of chemistry, physics, and calculus. Theoretical and practical aspects of industrial hygiene sampling and measurement of gases and vapors. Letter grading.

253. Physical Agents in Work Environment. (2 to 4) Lecture; two hours; laboratory, two hours outside study. Preparation: one year of physics, physics, measurement methods, health effects, and control methods for radiation (ionizing and nonionizing), noise, and thermal stress in workplace environment. S/U or letter grading.

254. Control of Airborne Contaminants in Industry. (4) Lecture, two hours; laboratory, two hours. Preparation: one year of physics. Requisites: course C252D. Principles and applications of control technology to industrial environments, including general and local exhaust, ventilation, air cleaning and treatment, and respirator protection. S/U or letter grading.

255. Biological and Health Surveillance Monitoring in Occupational/Environmental Health. (4) Lecture, three hours; discussion, one hour; assignments, three hours. Principles and applications of biological monitoring and health surveillance to assess occupational and environmental exposures to organic and inorganic chemicals and physical agents.

C257. Risk Assessment and Standard Setting. (4) Seminar, four hours. Requisites: course C240, Epidemiology 100. Designed to provide students with opportunity to review scientific basis for association of specific 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.
295. Identification and Analysis of Hazardous Wastes. (4) Lecture, three hours; discussion, one hour; laboratory, one hour; one field trip. Requisites: 252E, Biostatistics 100A. Defined to define, identify, label, and quantify hazardous wastes and how workers should be protected. Provided critical understanding of all analytical aspects of hazardous wastes, health aspects, and regulation and practice of handling hazardous wastes. Letter grading.

295A. Occupational Safety and Ergonomics. (4) Lecture, five hours. Most frequent and severe occupational injuries and illnesses, their distribution, causes, analysis methods, and control approaches, including low back pain, falls, machinery exposure, musculoskeletal disorders, fleet safety, and selected ergonomics topics. Letter grading.

295B. 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.

M260. Occupational Epidemiology. (4) (Same as Epidemiology M261.) Lecture, three hours. Requisites: Epidemiology 100; for epidemiology majors, Epidemiology 200A, 200B, 200C. Methodological considerations, approaches, and limitations in epidemiologic studies of occupational groups and environments. S/U or letter grading.


M270. Work and Health. (4) (Same as Community Health Sciences M278.) Lecture, three hours; practicum, one hour. Recommended preparation: bachelor's degree in science, engineering, geophysics, chemistry, biology, or public health. Examination of impact of work on physical and psychological health in context of newly emerging discipline. Focus on psychosocial measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. S/U or letter grading.

29A-29B. Doctoral Research. (Variable) Topics in Environmental Health Sciences, (2 each) Seminar, two hours. Advanced study and analysis of current topics in environmental health sciences. Discussion of current research and literature in area of faculty member's teaching course. S/U grading. 296A. Coastal Ecological Processes and Problems. 296B. Teratogenesis. 296C. Toxicology and Environmental Health Policy. 296D. Advanced Toxicology. 296E. Occu- pational and Environmental Exposure Assessment. 296F. Industrial and Environmental Hygiene. 296G. Germ Cell Cytogenetic/Geneic Biomarkers. 296H. Aquatic Organisms. 296I. Water Science. 296J. Health. 296M. Experimental and Modeling Studies of Atmospheric Pollution. 296N. Genetic Toxicology. 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. Field Studies in Environmental Health Sciences. (4) Fieldwork, to be arranged. Field observation and studies of selected community environmental health organizations. 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 82-unit minimum total required for MPH degree. Letter grading.

401. Environmental Measurements. (4) Lecture, two hours; laboratory, four hours. Requisites: courses C200A, Chemistry 230, Environmental Health 20A, 30A. Instrument methods for laboratory and field applications to assess quantity of environmental pollutants in air, food, and water, and to assess degree of exposure to such factors as noise and radiation. Letter grading.

410A. Instrumental Methods in Environmental Science. (4) Lecture, four hours; discussion, two hours; other, two hours. Preparation: one year each of physics, chemistry, and biology. Theory and principles of instrumental methods through lectures and group discussions. Letter grading.

410B. Instrumental Methods Laboratory in Environmental Health Sciences. (4) Lecture, one hour; discussion, one hour; laboratory, four hours; other, two hours. Preparation: one year each of physics, chemistry, and mathematics. Requisites: courses C200A, C200B. Laboratory techniques and instrumentation used in preparation and analysis of biological, environmental, and occupational samples. Letter grading.

411. Environmental Health Sciences Seminar. (2) Seminar, two hours. Required of graduate environmental health sciences students for one term each year. Current topics in environmental health science, policy, and leadership. Speakers who are leading thinkers at interface of health and environment address important subjects of environmental health. May be repeated for credit. S/U grading.

M412. Effective Technical Writing. (2) (Same as Environment M412.) Seminar, two hours. Essentials of grammar, punctuation, syntax, organization, and format needed to produce well-written journal articles, research reports, memoranda, letters, and résumés. Development of technical writing skills using critique, exercises, and examples. S/U grading.

M413. Advanced Technical Writing. (2) (Same as Environment M413.) Seminar, two hours. Development of advanced technical writing skills, with exercises focused on preparation of manuscripts for publication in peer-reviewed journal. S/U grading.

M414. Effective Oral Presentation. (2) (Same as Environment 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 C200A, 200B, 30A. Analysis of 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 C200A, C200B, 401. Introduction to water quality, with coverage of hydrology, water chemistry, and various chemical contaminants that may affect human health. Various treatment methods and health implications. S/U or letter grading.

M471. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) (Same as Community Health Sciences CM470 and Urban Planning M470) Lecture, three hours; field work, 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 interventions. S/U or 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 master's degree minimum total course requirement. 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. S/U grading.

597. 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.

598. Master's Thesis Research. (2 to 10) Tutorial, four hours. Only 4 units may be applied toward MPH and MS minimum total course requirement; may not be applied toward minimum graduate course requirement. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 10) Tutorial, four hours. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

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identifying determinants of population health, in- 
vestigation and control of disease outbreaks, study 
of environmental and industrial hazards, evaluation 
of preventive or curative programs or treatments, 
et and evaluation of the effectiveness and efficiency of 
vention or control strategies. Many tools of epide-
miology are shared with other fields such as mi-
obiology, immunology, medicine, statistics, de-
ography, and medical geography.

There is a growing core of epidemiologic method-
ology that includes the principles of study design 
and conduct, and statistical methods. Epidemi-
logic tools have become relevant for many other 
fields that study groups of people, e.g., genetics and 
epigenetics, global health, pharmacology, medi-
cine, and many others.

Epidemiologists work in many settings, including 
academia, international health agencies, state and 
local health departments, federal government 
agencies and health programs, health maintenance 
organizations, and numerous research projects 
private and publicly sponsored.

The objectives of the Department of Epidemiology 
fall into three broad categories—research, teach-
ng, and community service. Degrees offered in-
clude the MS and PhD in Epidemiology and, 
through the Fielding School of Public Health, the 
MPH with a specialization in epidemiology (see Pub-
lic Health Schoolwide 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 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 (su-
torial, four hours. Limited to juniors/seniors. Individual 
contract with faculty mentor required. May not be repeated. Letter grading.

Graduate Courses

200A. Methods I: Basic Concepts and Study De-
signs. (6) Lecture, six hours; discussion, four hours. 
Enforced requisite: corequisite: Biostatistics 100A. 
Introduction to basic concepts, principles, and 
methods of chronic and infectious disease epidemi-
ology. Letter grading.

200B. Methods II: Prediction and Validity. (6) Le-
cure, six hours; discussion, four hours. Enforced requi-
rites: course 200A, Biostatistics 100A, 100B. Intro-
duction to basic concepts, principles, and methods of 
chronic and infectious disease epidemiology. Letter 
grading.

200C. Methods III: Analysis. (6) Lecture, four 
hours; laboratory, two hours. Enforced requisite: courses 
200A, 200B. Introduction to basic concepts, princi-
les, and methods of epidemiologic data analysis. 
Letter grading.

203. Topics in Theoretical Epidemiology. (2) Le-
cure, two hours. Selected topics from current research 
areas in epidemiologic theory and quantitative methods. Topics selected on models, epi-
emiologic 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.

M204. Logic, Causation, and Probability. (4) (Same 
as Statistics M243.) Lecture, four hours. Preparation: 
two terms of statistics or probability and statistics. 
Recommended requisite: course 200C. Principles of 
ductive logic and causal logic using counterfac-
tuors. Principles of probability logic and probabilistic 
duction. Causal probability logic using directed acy-
ic graphs. S/U or letter grading.

M211. Statistical Methods for Epidemiology. (4) (Same 
as Statistics M223.) Lecture, four hours. Preparation: 
two terms of statistics (such as Biostatistics 100A, 
100B). Requisites: courses 200B, 200C. Con-
cepts and methods tailored for analysis of epidemi-
ologic data, with emphasis on tabular and graphical
techniques. Expansion of topics introduced in courses 200B and 200C and introduction of new topics, including principles of epidemiologic analysis, trend analysis, smoothing and sensitivity analysis. S/U or letter grading.

212. Statistical Modeling in Epidemiology. (4) (Formerly numbered M212.) Lecture, four hours. Preparation: two terms of statistics (three terms recommended). Recommended: course M204 or M211. Principles of modeling, including meanings of models, a prior model specification, and selection of models into explicit population assumptions, model selection, model diagnostics, hierarchical (multilevel) modeling. S/U or letter grading.


M216. Applied Sampling. (4) (Same as Statistics CM248.) Lecture, three hours; discussion, one hour. Designed for upper-division and graduate students in social or life 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 for 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. Requisite: course 100 or 200A. Principles of social network research, social network analysis, and social network intervention, especially in relation to public health and health behavior. Coding examples provided in R (mainly R graph and gplots2 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 M218.) Lecture, four hours. Requisites: courses 200B and 200C, or Community Health Sciences 211A and 211B. Designing, testing, and administration of data collection instruments, with particular emphasis on questionnaires. Letter grading.

220. Principles of Infectious Disease Epidemiology. (4) Lecture, three hours. Requisite: course 100 or 200B. Assumptions, 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 and containment fails 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 preparedness. Letter grading.


M229. Epidemiology and Foodborne Illnesses. (4) (Formerly numbered M229.) Lecture, four hours. Requisites: courses 200A, 200B, and 200C (or 100). Biostatistics 100A. Food poisoning is significant cause of morbidity and mortality in both developing and developed world. Examination of etiologic agents of food poisoning and factors specific to foods that allow them to become agents of disease transmission. S/U or letter grading.

230. Epidemiology of Sexually Transmitted Diseases. (4) Lecture, four hours. Requisites: courses 200A, 200B, and 200C (or 100). 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 control of specific epidem- iologic impact on disease reduction, elimination, or eradication. Letter grading.

232. Methods in Research of Marginalized and Hidden Populations. (2) Lecture, two hours. Requisites: courses 200A, 200B, and 200C (or 100). Introduction to range of different methodologies used to collect data and conduct analysis on reproductive epidemiology topics, including methods that produce quantitative and non- quantitative data, with emphasis on use of methods appropriate for challenging and sensitive research topics such as sexual behavior, abortion use, and sexual abuse. Letter grading.

233. Communicable Disease Epidemiology in Corrections. (2) Lecture, two hours. Requisites: courses 200A and 200B (or 100). Overview of communicable disease epidemiology, public health program, and research issues specific to correctional population in U.S., including factors that contribute to transmission of communicable pathogens such as mental health, homelessness, and community reintegration. Legal and ethical issues related to healthcare among incarcerated and potential effects on community health. S/U or letter grading.


245. Epidemiology of Infections and Cancer. (2) Lecture, two hours. Requisites: courses 200A, 200B, and 200C (or 100), Biostatistics 100A. Biological, quantitative, philosophical, and administrative considerations in epidemiologic cancer research. Hypothesis specification and choice of study design. Uses of descriptive epidemiology, magnitude of risk factors, strategies for prevention, lipoprotein metabolism, and epidemiology of diabetes, hypertension, and chronic lung disease. Letter grading.

249. Genetic Epidemiology I. (2) Lecture, three hours. Introduction to concepts and methods for studying the genetic contributions to disease, identifying genes, and characterizing their main biological interactions with environmental factors. S/U or letter grading.

M252. Epidemiologic Methods in Violent Injury. (4) (Same as Environmental Health Sciences M251.) Lecture, four hours. Requisites: courses 200A, 200B, and 200C (or 100). Overview of communicable disease epidemiology, public health program, and research issues specific to correctional population in U.S., including factors that contribute to transmission of communicable pathogens such as mental health, homelessness, and community reintegration. Legal and ethical issues related to healthcare among incarcerated and potential effects on community health. 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 principles and methods, ranging from foodborne outbreak investigation 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.


265. Epidemiologic Methods in Occupational Environmental Health. (4) Lecture, three hours. Intro- duction to methods needed to evalu- ation of environmental health consequences of occupational and environmental hazards, including study design, exposure assessment, and statistical techniques commonly encountered in research focusing 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 tech- niques to critically evaluate and interpret current litera- ture. Letter grading.

266. Global Health and Tropical Medicine. (4) Lecture, four hours. Introduction to tropical diseases and global health. How humanitarian health issues, maternal-child health, research in tropics, World Health Organizations, and political/medical constraints all are related to respect to health on worldwide scale. 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, birth outcome, low birth weight, prematurity, birth defects, pregnancy loss, and perinatal mortality. Approaches to study de- sign and exposure assessment and identification of potential sources of bias illustrated through review of
Behavioral Epidemiology. (4) Lecture, two hours. Requisites: courses 200A, 200B, 200C. Pharmacoepidemiology is application of epidemiologic research. How to collect, analyze, and interpret data on behaviors that can be associated with disease outcomes, including methods to collect survey data (i.e., design of questionnaires, interview techniques, use of technology to collect data) and methods to collect and analyze qualitative data (e.g., ethnographic interviews, focus groups, systematic observations). Overview information on epidemiologic key behavioral factors affecting human health, including sexual risk behaviors, substance use, physical activity, and healthcare utilization. S/U or letter grading.

M272. Social Epidemiology. (4) Same as Community Health Sciences M272.) Lecture, two hours; discussion, one hour. Requisite: course 100. Relationship between social behavior, social capital, and psychosocial factors in etiology, occurrence, and distribution of morbidity and mortality. Emphasis on lifestyles and other socioeconomic factors associated with general susceptibility to disease and subsequent mortality. Letter grading.

M273. Responsible Conduct of Research in Global Health. (2) (Same as Public Health M273.) Lecture, two hours. Requisite: Community Health Sciences 200. Introduction to responsible conduct of research and understanding of protection of human, 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.


291. Seminar: Special Topics in Epidemiology. (2) Seminar, two hours. Requisites: courses 200A, 200B, and 200C (or 100). Review of current epidemiologic research contained in recent medical literature. May be repeated for credit. S/U or letter grading.


294. Epidemiology and Policy of Occupational and Environmental Health Issues. (2) Seminar, two hours. Requisites: courses 200A, 200B, and 200C (or 100) and permission of instructor. Focus on demands that globalized, chemical, and toxic environments place on labor leaders and the need to work within these contexts. S/U or letter grading.


375. Teaching Apprentices Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship experience as teaching assistant, 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. S/U grading.

400. Field Studies in Epidemiology. (4) Fieldwork, to be arranged. Field observation and studies in selected community organizations for health promotion or medical care. Students must file field study plan, 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.

M403. Computer Management and Analysis of Health Data Using SAS. (4) (Same as Biostatistics M403B.) Lecture, two hours; laboratory, two hours. Requisite: Biostatistics 100A, 100B (100B may be taken concurrently). 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.

404. Achievement of Goals for Management and Analysis of Epidemiologic Data. (2) Lecture, three hours. Requisite: course M403 or 410. Hands-on experience with SAS 9.2/9.3, with focus on using SAS data and PROC steps efficiently to manage, clean, analyze, and tabulate epidemiologic data from data collection systems. Common issues and solutions in data management, including lack of documentation, data definitions, unique subject identifiers, and nonstandard data formatting. Letter grading.

407A. Epidemiologic Research Using R. (2) Lecture, two hours; discussion, one hour. Requisites: courses 200A, 200B, 200C or consent of instructor. Designed to broadly offer R coding experience, with emphasis on data management, visualization, and analysis. Introduction of new concepts each week through guided interactive tutorials with working examples. S/U or letter grading.

407B. Applied Epidemiologic Research Using R. (2) Lecture, two hours. Requisite: course 407A. Designed to broadly offer R coding experience, with emphasis on data management, data description using tables and figures, and data analysis. Introduction of various concepts with data to facilitate interactive learning each week through guided R programming tutorials. Weekly R data analysis, in which students present their research and data analysis progress using real data. Each student performs secondary data analysis and prepares abstract, brief introduction, methods, and results part of submittable brief communication paper. S/U or letter grading.

410. Management of Epidemiologic Data. (2) Lecture, two hours. Data management for various epidemiologic study designs, confidentiality concerns; data management systems; introduction to mainframe computer. S/U or letter grading.

412. Public Health Surveillance. (2) Lecture, two hours. Requisites: courses 200A, 200B, and 200C (or 100). Biostatistics 100A. Overview of public health surveillance methodology, including design, implementation, and evaluation of surveillance systems, (2) analysis and interpretation of surveillance data, and (3) application of surveillance methods to specific health-related outcomes. S/U or letter grading.

413. Methods of Scientific Communication. (2) Lecture, two hours. Requisite: course 100 or 200A. Principles of scientific writing and communication. Approaches to developing effective written, oral, and visual presentations of epidemiologic research and findings. Communication issues arising in conduct of research, including informed consent process. S/U or letter grading.
Ethnomusicology involves the study of all kinds of cultures of the world; (2) understanding of the art of music, and preparatory training for a broad range of careers in music after graduation. The undergraduate major in Ethnomusicology emphasizes general world music, performance/scholarship, 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, 20A, 20B, 20C, 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 31A 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, 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/composition, (2) public ethnomusicology, (3) scholarly research, 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). Students must enroll in Ethnomusicology 199 (2 units) and pass a recital permission jury. Instrumental and vocal performers must present a portion of their recital performance, and composers must present excerpts from their recital scores in front of two faculty members. Students also enroll in Ethnomusicology 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 195B, in an institution approved by the faculty sponsor. Students 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 Ethnomusicology 199 (2 units minimum) for at least one term while writing the thesis.

Independent Capstone: In consultation with a faculty adviser, students can propose capstone projects in other potential emphasis concepts such as technologies, film scoring, interactive arts, dance, and more. Students must enroll in Ethnomusicology 199 (2 units minimum).
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 Doctor of Philosophy (PhD) degrees in Ethnomusicology.

Ethnomusicology

Lower-Division Courses

5. Music Around World. (5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Overview of world’s musical traditions by selecting one or two case studies from each of musical world regions: Pacific, East Asia, Southeast Asia, South Asia, Middle East, Africa, Europe, Latin America, and U.S. and Canada. P/NP or letter grading.

M6A-M6B-M6C. Introduction to Musicianship. (2–2-2) (Same as Music 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 subsequent study. Preparation: placement examination. 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.

M12A-M12B. African American Musical Heritage. (5-5) (Formerly numbered M110A.) (Same as African American Studies 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 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.

15. American Life in Music. (4) Lecture, three hours. Impact of ethnicity, race, gender, and other social processes on American music in late 20th century; use of and creativity in music to respond to and shape contemporary social processes. 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-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. Exploration and popular music from many different countries, with introduction to basic ethnomusicological concepts and development of listening and analytical skills. Each course may be taken independently for credit. Letter grading. 20A. Europe and Americas; 20B. Africa and Near East; 20C. Asia.

M25. Global Pop. (5) (Formerly numbered 25.) (Same as Global Jazz Studies 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.

30. Music and Media. (5) Lecture, four hours; discussion, one hour. Survey of music in film and television. Ways music is used to tell story to people by industry, technologies, and corporations. Survey of leading theorists of media and exploration of case studies. P/NP or letter grading.

M35. Blues, Society, and American Culture. (5) (Formerly numbered 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/NP or letter grading.

40. Music and Religion. (5) Lecture, four hours; discussion, one hour. Survey of nature, role, and power of music in religious rituals around world, covering music and ritual of Hinduism, Buddhism, Judaism, Christianity, and Islam. Exploration of Native Americans and syncretic religious practices in Americas such as African American gospel music, Brazilian Candomble, Cuban Santería, and Haitian vodoun. 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 omniversal songs that most distinctively characterize this genre. P/NP 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 historical figures that shaped development of jazz from its early years through modern jazz. Important historical social issues of race and gender. World War II, Civil Rights Movement) that interact with history of U.S. and jazz music. P/NP 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 context of his era through its musical manifestations in present, including changes in performance styles, scholarly studies, reception, and contemporary fan culture. P/NP or letter grading.


M73. Music and Religion in Popular Culture. (5) (Same as Musicology M73.) Lecture, four hours; discussion, one hour. Survey of popular music in religious traditions since the 1970s. Growth of music in Jewish denominations, including Orthodox, Reform, and Conservative, and Christian contemporary music, from evangelical to cross-over artists performing in mainstream. Credit for both courses M73 and M71 not allowed. 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 supervised term 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.


92. Private Instruction in Music. (2) Studio, one hour. Limited to Ethnomusicology majors. Private or semester music lesson, individual, and distinguished community-based musician, that must be arranged by students and approved by course instructor. May be repeated for credit without limitation. 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

C100. 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 C200. P/NP or letter grading.

M103. Creating Musical Community. (4) (Same as Global Jazz Studies M103, Music M103, and Musicology M103.) Seminar, 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 notion of social contract that forms basis of musical notation. Emphasizes American music folk game traditions, highlights complex history of this country and way in which entire body is used as resource when instruments are unavailable. Letter grading.

105. Music Business. (4) Lecture; four hours; outside study, eight hours. Designed for junior/senior Ethnomusicology majors in public ethnomusicology emphasis. How music industry functions and how products are created, marketed, and distributed. Basic information on production of recordings and legal issues faced by musicians, students, and scholars who use music in their work. P/NP or letter grading.

106A. Traditional Northern American Indian Music. (4) Lecture, three hours; discussion, one hour. Native American traditional music and its role in tribal societies. California, Southwest, Pacific Northwest, Northern and Southern Plains, Great Lakes/Eastern Woodlands, and Southeastern culture areas included. P/NP or letter grading.

106B. Contemporary Northern American Indian Music. (4) Lecture, three hours; discussion, one hour. Contemporary Native American music and musicology, including popular styles (folk, country, rock), intertribal Indian musical genres (powwow), syncretic religious music, and traditional/historic Pan-Indian music. P/NP or letter grading.

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M108A. Music of Latin America. (5–5) Lecture, four hours; discussion, one hour. Course M108A is not required to 108B. Survey of traditional and contemporary musical culture. P/NP or letter grading.

M108A. Mexico, Central America, and Caribbean Isles. (Same as Chicana and Chicano Studies M108A; 108B. Latin South America.

M109. Women in Jazz. (4) (Same as African American Studies M109 and Gender Studies M109.) Lecture, four hours; discussion, one hour. Sociocultural history of women and their impact on development of jazz. P/NP or letter grading.

M111. Ellingtonia. (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 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 worked with Ellington, such as composer Billy Strayhorn and musicians Johnny Hodges, Cootie Williams, and Mercer Ellington. P/NP or letter grading.

CM112. African American Music in California. (4) (Same as African American Studies CM112A.) Lecture, four hours; discussion, one hour. Historical and analytical examination of African American music in California, including history, migration patterns, and urbanism to determine their impact on development of African American music in California. Concurrently scheduled with course CM122. P/NP or letter grading.

113. Music of Brazil. (4) Lecture, three hours. History of ethnic and art music in Brazil, with some reference to Portuguese antecedents. P/NP or letter grading.

M115. Musical Aesthetics in Los Angeles. (4) (Same as Chicana and Chicano Studies M115.) Lecture, three hours. Confronting aesthetics from classical perspective of art as intuition, examination on cross-cultural basis of musical contexts within vast multicultural metropolis of Los Angeles, with focus on various musical networks and specific experiences of Chicano/Latino, African American, American Indian, Asian, rock culture, Western art music tradition, and commercial music industry. P/NP or letter grading.

M116. Chicano/Latino Music in U.S. (5) (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.

117. 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.

118. Development of Rock. (5) Lecture, four hours. Examination of historical and stylistic development of rock from 1950s to present, with attention to its sociocultural and political impact on American society and beyond. P/NP or letter grading.

M119. Cultural History of Rap. (5) (Same as African American Studies M119 and Global Jazz Studies M119.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and hip-hop culture, with emphasis on musical and verbal qualities, philosophy, and sociocultural meanings. Gender representation, and influences on cinema and popular culture. P/NP or letter grading.

M123. Exploration in Rhythms. (2) Formerly numbered 128B.) (Same as Global Jazz Studies M128.) Lecture, two hours; outside study, four hours. Preparation: ability to read melodic or rhythmic 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, hemiola, and polyrhythms. P/NP or Letter grading.

M130. 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 from point of view of musicians who shaped jazz. Emphasis on understanding and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical resources and historical knowledge of musicians and ethnomusicologists combined with those interested in jazz as cultural tradition. P/NP or letter grading.

M131. Development of Latin Jazz. (4) (Same as Global Jazz Studies M131 and Music M131.) Lecture, four hours; discussion, one hour. Survey of history and stylistic development of musical style referred to today as Latin jazz. P/NP or letter grading.

133. European Musics: Politics, Identities, Nationalisms. (5) Lecture, four hours; outside study, 12 hours. Limited to Ethnomusicology, Music, Musicology, Music History, and European Studies majors. European folk, popular, and classical music as practice that shapes ideas about national, ethnic, class, and religious identity and as tool of political domination and resistance. Letter grading.

M134. Introduction to Armenian Music. (4) (Same as Armenian Studies M134 and Music M134.) Lecture, three hours. Some amount of formal music study and experience in Middle Eastern music desirable 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.

136A. Music of Africa. (5) Lecture, four hours; discussion, one hour; outside study, 10 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 C225. Letter grading.


C141. Music of Turkey and Iran. (4) Seminar, three hours. Limited to junior/senior Ethnomusicology majors. 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, and practice. Concurrent participation in Near East performance ensemble (course 91N or 161N) required. Concurrently scheduled with course C241. 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 of Indian classical music in context of religious, sociocultural, and historical background of country. P/NP or letter grading.

C150. Music and Politics in East Asia. (4) Lecture, four hours. Limited to Ethnomusicology, Music, Music History, World Arts and Cultures, Chinese, Japanese, Korean, and East Asian Studies majors. 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 C155. Letter grading.

155. Intangible Cultural Heritage Worldwide. (4) Lecture, three hours. Designed for Ethnomusicology, Music History, and World Arts and Cultures majors. 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 tangible and intangible heritage of Latin South America, Japan, South Korea, and UNESCO in making intangible cultural heritage focal point of much cultural policy worldwide; tensions among international ideals, nation-state nationalisms, regionalism, ethnicity, and indigeneity in creating intangible 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 professional organizations in cultural preservation schemes; and related concept of sustainability. Concurrently scheduled with course C255. Letter grading.


M156A. Music of China. (5) Lecture, four hours; discussion, one hour. Limited to Ethnomusicology majors. Survey of traditional, popular, and Western-influenced musics currently widespread in China, including musical analysis of different genres; examination of which they exist. Investigation of profound effect of Confucian and Communist ideologies on music. Concurrently scheduled with course C256A. 156B. Lecture, three hours; laboratory, two hours. Required: course C156A. Introduction to various notational systems. Analysis of representative styles.


159. Music on China’s Periphery. (4) Lecture, four hours; outside study, eight hours. Designed for undergraduate Ethnomusicology, Music History, and World Arts and Cultures majors. Survey of musics from China’s border regions and neighboring countries: technical musical characteristics and important contextual issues related to traditional and modern styles: mongolia, Uighur, Xizang, Tibet, Viet, Beto-Burman peoples, Hmong, and indigenous peoples of Taiwan. Concurrently scheduled with course C259. P/NP or letter grading.


162. Advanced Private Instruction in Music. (2) Seminar, one hour; outside practice, five hours. Preparation: two years of courses 91A through 91Z or 92. Limited to Ethnomusicology majors. Advanced private or semiprivate music instruction with distinguished
community-based musician, that must be arranged by
students and approved by course instructor. May be
required for credit with permission. Letter grading.

164. World Music Composition. (4) Lecture, three
hours; laboratory, 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.

C165. Selected Topics in Composition. (4) Lecture,
four hours; discussion, one hour. Examination of
important musical concepts and approaches to en-
able students to develop greater compositional tech-
nique and understanding. Ways composers of jazz,
European classical music, and other musical genres
have successfully approached use of extended composi-
tional forms. Examination of way in which world music
traditions have interlaced with jazz and other types of
music to create new musical languages. Use of con-
cepts, structural paradigms, and inspiration from liter-
ature, visual arts, and other sources to develop stu-
dent compositions. May be repeated once for credit.
Concurrently scheduled with course C270. Letter
grading.

(2-2) Activity, three hours; outside practice, three
hours. Advanced performance of specializations in
traditional vocal music, instrumental music, and
dance. May be repeated for credit without limit.
P/N or letter grading. 168A. Music of China: En-
semble. 168B. Music of China: Ensemble. 168C.
168M. Music of Balkans: Ensemble. 168N.
Music of Balkans: Choir. 168O. Music of Balkans: In-
strumental Ensemble.

173. Selected Topics in Music and Religion in
Popular Culture. (5) Same as Musicology M173.)
Seminar, two hours. Enforced corequisite: attendance,
but not enrollment, in course M73 lecture. Explora-
tion of connections of music, religion, and popular culture
among American Jews and Christians. Credit for both
courses M73 and M73 not allowed. Letter grading.

174. Aesthetics of Music. (5) Lecture, four hours;
discussion, two hours. Discussion of development for
nonmajors. Historical survey of musical aesthetic thought and practice.
Selected readings and musical examples. P/N or
letter grading.

175. Sociology of Music. (4) Lecture, four hours.
Designed for Ethnomusicology, Music History, and
Music majors. Introduction to sociology of music, its prin-
ciples and basic concepts, and its critical significance
for sociomusicological inquiry, including study of pop-
ular music commerce and cultural politics of music.
P/N or letter grading.

C178. Aesthetic and Philosophical Foundations in
Systematic Musicology. (4) Seminar, three hours;
outside study, nine hours. Limited to Ethnomusicology
majors. Comprehensive overview of critical ap-
proaches to aesthetics in systematic musicology. Ex-
ploration of aesthetics and philosophy of music; so-
ciology of music; counterpoint theory, hermeneutics,
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, political, religious, and
social systems. P/N or letter grading.

Musicology CM186, and Music Industry M182.)
Lecture, four hours; discussion, one hour; outside study,
seven hours. Limited to Ethnomusicology, Music, and
Music Industry 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 record-
ings to MTV and popular music today. Concurrently
scheduled with course CM288. Letter grading.

183. Study of Ethnomusicology. (4) Lecture,
three hours; outside study, nine hours. Requisites: courses
M6A, M6B, M6C, 20A, 20B, 20C. Designed for Ethno-
musicology majors. Examination in composition
using variety of Western and non-Western musical
systems. Final project required. Letter grading.

C184. Public Ethnomusicology. (4) Lecture,
three 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.
Necessary skills for research applications and policy-oriented
practice. 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 informa-
tion literate. How to locate, identify, and critically evalu-
ate and use print and electronic information effec-
tively and ethically. P/N or letter grading.

186. Senior Recital Project. (2 Tutorial, one hour.
Limited to seniors. Final project for students who, with
approval from their faculty advisers, perform one-hour recital or have their compositions performed in one-
hour recital. Organization and arrangement of re-
hearsal schedule with appropriate accompaniment and
preparation of program for performance. Grades are
assigned in term recital is performed or composi-
tion is completed and performed. P/N or letter
grading.

188A. 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 not be repeated. Letter grading.

188B. 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 design syllabus for USIE seminar, organize
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. Indi-
vidual study in regularly scheduled meetings with fac-
culty mentor while facilitating USIE 885 course. Indi-
vidual contract with faculty mentor required. May not
be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar,
two hours. Limited to 20 students. Designed as adjunct to
undergraduate lecture course. Exploration of topics in
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/N or
letter grading.

193. Journal Club Seminars: Ethnomusicology. (2)
Seminar, two hours; outside study, four hours. Limited to
undergraduate students. Reading and discussion of
written works on subjects in ethnomusicology. May be
repeated for credit. P/N or letter grading.

195A. Community or Corporate Internships in Pub-
ic Ethnomusicology. (2 to 4) Tutorial, six to 12 hours.
Limited to juniors/seniors with minimum cumulative 3.0
gpa. Internships 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/N or letter grading.

196. World Music Teaching Practicum. (4) Seminar,
two hours; fieldwork, three hours; outside study, seven
hours. Limited to junior/senior Ethnomusicology ma-
jors. Integration of academic work and hands-on training.
Participation in the development and implementation of
world music education and application of these theo-
ries in elementary and secondary music and social studies
classrooms. P/N or 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 se-
niors. Individual intensive study in ethnomusicology,
with scheduled meetings to be arranged between fac-
culty member and student. Tangible evidence of mas-
er of subject matter resulting in final research project
required. May be repeated for maximum of 8 units. In-
dividual contract required. P/N or letter grading.

(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 be-
tween 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/N or letter grading.

199. Directed Research or Senior Project in Ethno-
musicology. (2 to 4) Tutorial, to be arranged. Limited
to junior/senior Ethnomusicology majors. Supervised individual research or investigation under guidance of faculty
mentor. Individual project required. May not be repeated for
maximum of 8 units. Individual contract required. Letter grading.

Graduate Courses

Seminar, three hours. Designed for Ethnomusicology
majors. Examination of history, present state, and fu-
ture of audiovisual archives, with specific focus on eth-
omusicological, research 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.

202. Current Issues in Ethnomusicology. (4) Sem-
inare, three hours; outside study, nine hours. Limited to
graduate ethnomusicology students. Current issues,
basic literature, and schools of thought in field of eth-
omusicology from 1980s to present. P/N or letter
grading.

C204. Aesthetic and Philosophical Foundations in
Systematic Musicology. (4) Seminar, three hours;
outside study, nine hours. Limited to Ethnomusicology
majors. Comprehensive overview of critical ap-
proaches to aesthetics in systematic musicology. Ex-
ploration of aesthetics and philosophy of music, so-
ciology of music, counterpoint theory, hermeneutics,
music criticism. Concurrently scheduled with course
C178. Letter grading.

205. Seminar: Information Technology and Re-
search Skills. (4) Seminar, three hours. Limited to
graduate ethnomusicology students. Lecture, demon-
stration, practice. Information research and about
music that is essential to student careers as ethnomusicologists, specifically information tech-
nology skills, acoustics, and representational tools for
nongeometric acoustic phenomena. Basic under-
standing of acoustics, ability to represent sounds in

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206. Integrating Theory with Ethnography. (4) Seminar, three hours. Designed to show how theory and primary research cannot exist independently; how various authors have integrated theoretical writings and 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, including various 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.

211. Seminar: African American Music. (4) (Same as Africana Studies M211) Seminar, three hours. Requisites: courses M110A, M110B. Designed for graduate students. In-depth examination of intellectual history of African American music and musical traditions found on African continent and become more cognizant of contributions that people of Africa have made to music. Concurrently scheduled with course C138B. Letter grading.


241. 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 (courses C140 or 141N) 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 147. Study of history, theory, and practice of music of north and south Indian classical music. Emphasis on music history and traditional 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 imperialism has often explicitly impinged 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 one Indonesian music performance group (course 91B or 91H) required. S/U or letter grading.


265. Religion and Music. (4) Seminar, three hours; outside study, nine hours. Relationship between music and spirituality, ecstasy, mysticism, and artistic inspiration. S/U or letter grading.

267. Music and Ecstasy. (4) Seminar, three hours; outside study, nine hours. Cross-cultural examination of role of musical expression as spiritual medium and as artistic expression in world’s religions. S/U or letter grading.

268. Modernity and Musical Experience. (4) Seminar, three hours; outside study, ten hours. Consideration of local and world musics in relation to modernity, postmodernity, globality, notions of self in a world of power, and media images. Letter grading.

270. Selected Topics in Composition. (4) Lecture, four hours; outside study, eight hours. Limited to graduate students. Evaluation of important musical con-
271. Seminar: Acoustics of Music. (8) 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, psychoacoustics, and methods of spectral analysis. May be repeated once for credit. Concurrently scheduled with course C165. Letter grading.

273. Seminar: Psychology of Music. (6) Seminar, three hours. 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. (6) Seminar, three hours. Specific topics in Western and non-Western musicology, including value, meaning, and historical development. May be repeated once for credit. S/U or letter grading.

279. Seminar: Systematic Musicology. (4) Seminar, three hours. Requisite: course 170. Exploration of specific topics in general field of systematic musicology covering disciplines such as anthropology, acoustics, aesthetics, music perception, philosophy, organology, sociology, and experimental approaches. May be repeated once for credit. S/U or letter grading.


285. Seminar: Comparative Music Theory. (6) 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.

286. 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 C184. Letter grading.


288. Music Industry, (4) Same as Music CM288 and Musicology CM288. 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 advanced 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 strengthen 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: 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 Apprentice Practicum. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall quarter inauguration week. Preparation: appointment as teaching apprentice in Ethnomusicology Department. Required of all new teaching apprentices. Special course dealing with practical problems and issues in 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.

599A. Electronic Teaching Portfolio. (1, 2, 3, or 4) Tutorial, to be arranged. May be repeated for credit. S/U grading.
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 misdistribution of physicians and the shortage of primary care physicians in South Los Angeles. Students can also participate in a clinical experience. At the end of the project the students present their work on a poster, joining approximately 80 classmates doing other summer projects support 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. Individual contract required. P/NP or letter grading.
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 work shopping 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. Through the study of 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:

- Production of scholarly and artistic work in the areas of history, criticism, and theory of film, television, and digital media
- 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 Transfer 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, 13, 51, 84A, 150, and one course from Theater 10, 15, 20, 28A, 28B, 28C, or 30.

The Major

Required: Film and Television 101A, 102A, 102B, 102C, 106B (or 104C), 134, 154, 155, 163; one cinema and media studies elective from 107, 108, 109, M111, 112, 113, 114, 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, 135B, 135C.
- Producing: Film and Television C146, C147, C13A, 13B, 13C, 14B.
- Animation: Film and Television C181A, C181B, C181C.
- Digital Media: Film and Television C142, C144, C145, C148.

Courses taken to satisfy the senior concentration may not also be applied toward other course requirements in the major.

Students should be mindful of the exigencies inherent in filmmaking and be prepared to meet the additional demands of time and costs.

Students are required to perform assignments on each other's projects. In addition, the department reserves the right to hold for its own purposes examples of any work done in classes and to retain for distribution such examples as may be selected.

Film, Television, and Digital Media Minor

The Film, Television, and Digital Media minor is designed for students who wish to augment their major program of study with a series of courses that promote the study of film, television, and digital media as art forms with social, political, cultural, and economic significance. The minor consists of a selection of lower and upper-division courses that introduce students to the practice and critical study of film, television, and digital media.

To enter the minor students must have declared a major other than the Film and Television BA, be in good academic standing, have a minimum 3.0 grade-point average, have completed at least three film and television courses with grades of B or better, and file an application at the Student Services Office, 103 East Melnitz Building, 310-206-8441. For information about the minor, see the minor website. 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.

Required Lower-Division Courses (8 to 11 units): Two courses selected from Film and Television 4, 6A, 10A, 33, M50, S1, or 84A.


A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. All units applied toward the minor must be taken in residence at UCLA. Film and television courses taken at other institutions cannot be applied toward 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 Department of Film, Television, and Digital Media offers Master of Arts (MA), Master of Fine Arts (MA/MA), Master of Fine Arts in Film, Television, and Digital Media, and Doctor of Philosophy (PhD) degrees in Film and Television.
Film and Television

Lower-Division Courses

1A-1B-1C. Freshman Symposium. (1-1-1) (Formerly numbered 108A.) 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 industries. Letter grading.

4. Introduction to Art and Technique of Filmmaking. (5) (Formerly numbered 122B.) Lecture, four 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) (Formerly numbered 110A) Lecture, three hours; discussion, one hour. Critical survey of American television history from its inception to present. Examination of interrelationships between 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 programs and personalities that have come to embody American culture. 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 areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

33. Introductory Screenwriting. (4) (Formerly numbered 133) Lecture, three hours; discussion, one hour. Not open to credit to students with credit for course C132/CG30. Structural analysis of feature films and development of professional screenwriters’ vocabulary for constructing, deconstructing, and reworking their own work. Screenings of films and selected film sequences in class and by assignment. P/NP or letter grading.

M50. Introduction to Visual Culture. (5) (Same as English M50) Lecture, three hours; discussion, one hour; laboratory, two hours. 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.

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 dramatic narrative and laboratory experience in one or more various aspects of contemporary production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 8 units. Letter grading.

75. 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, practical hands-on, laboratory experience for directors of photography, camera operators, gaffers, key grips, assistant camera, and grips. Crew rotation changes per camera setup. Letter grading.

84A. Overview of Contemporary Film Industry. (4) (Formerly numbered 184A) Lecture, three hours; discussion, one hour. Examination of evolving economic structures, and changing models of ownership and control of Hollywood film industry, with emphasis on operations of studios and 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-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 grading.

Upper-Division Courses

101A. Junior Symposium. (1) (Formerly numbered 100A) Laboratory, three hours. Course 101A is an enforced requisite to 101B, which is enforced requisite to 101C. Seminar in contemporary and historical study of filmmaking as technical, artistic, and cultural phenomenon. P/NP or letter grading.

102A-102B-102C. Limited to Film and Television majors. Structure 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) (Formerly numbered 100B) Laboratory, three hours. Enforced requisite: course 101A. Course 102A is an 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. Consideration of shorter, more experimental and upcoming filmmakers. P/NP or letter grading.

113. Film Authors. (5) Lecture/screenings, five hours; laboratory, five hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of filmmaking as technical, artistic, and cultural phenomenon. P/NP or letter grading.

M111. Women and Film. (6) (Same as Gender Studies M111.) Lecture, eight hours; discussion, one hour. Historical and critical survey of 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. Film and Social Change. (5) Lecture/screenings, 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 (director or writer). 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, silent epic, comedy, serial films, serials). P/NP or letter grading.

M117. Chicanos in Film/Video. (5) (Same as Chicana and Chicano Studies M114.) Lecture/screenings, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicana and Chicano cultural, socio-economic, cultural, and aesthetic practice. Examination of representation of Mexican Americans and Chicanos in Hollywood genres—silent grease 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 Zoot Suit, Ballad of Gregorio Cortez, and Born in East L.A. Consideration of shorter, more experimental work that critiques Hollywood image of Chicanos. Guest speakers include established and up-and-coming filmmakers. P/NP or letter grading.


C122. Overview of a History, Technique, and Practice. (4) Lecture, three hours. Practical application of film editing techniques, how they have evolved, and continue to evolve. Examination of history of editing, as well as current editing trends, terminology, and workflow. P/NP or letter grading.

C122. Digital Cinematography. (4) Lecture, three hours. With 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 manipulation, lighting, composition, coverage, high definition, digital exhibition, filtration, multiple-camera shooting. P/NP or letter grading.

C122. Writing for Animation Series. (5) Lecture, three hours. Introduction to craft and business of writing animation for television. Overview of history of animation produced specifically for this medium, along with its many 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 and cultural perspective, with the emphasis on how and why a medium is heading given changes in technology and continuing (and growing) scrutiny of outside forces such as corporations and FCC. Letter grading.

C123. Disney Feature: Then and Now. (5) Lecture, three hours; discussion, three hours. Study and analysis of Disney’s animated features. Evaluation of why
Disney’s animated features have dominated until recently and ramifications of this dominance on animation and society. Letter grading.

122M. Film and Television Directing. (4) Lecture, three hours. Through discussions, screenings, demonstrations, and guest lectures, students learn about directing in a film or television environment. Letter or P/NP grading.

122N. History of Animation in American Film and Television. (5) Lecture, six hours. Survey of art of animation in America from its first precursors to recent films of Disney, Pixar, DreamWorks, Ghibli, and others. Place of animation in pop culture, racial imagery and ethnic stereotypes, and the impact of these images on American society. P/NP or letter grading.

M124. Sex, Race, and Difference in Transnational Film. (6) Same as Gender Studies 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 day. Examination of nature of dominant discourses and representations of women, race, and sexuality in films of Disney, Pixar, DreamWorks, Ghibli, and others. Letter grading.

123B. Intermediate Television Writing One-Hour Drama/Half-Hour Dramedy Series. (8) Lecture, three hours. Recommended requisite: course 131. Exploration of television narrative, covering style, content, and structural analysis. Review of principles behind network needs and how pilots are chosen across broadcast, cable and digital platforms. Students write first draft of original pilot series. Open to works in progress and rewrites. Offered summer only. Letter grading.

134. Intermediate Screenwriting Workshop. (4) Seminar, three hours; discussion, one hour. Exploration of film and television writing. P/NP or letter grading.

135A-135B. Advanced Screenwriting Workshops. (6–8–8) Laboratory, three hours. Requisite: course 103. Course 135A is requisite to 135B, which is requisite to 135C. For 135B and 135C limited to Film and Television majors and designed for seniors. Courses in film and television writing. First act of original screenplay to be developed in course 135A, followed by second act in course 135B, and third act in course 135C. Letter grading.


143. 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 digital image visualizations. May be repeated once for credit. Concurrently scheduled with course C242. Letter grading.

144. Digital Imagination and Visualization. (4) Lecture, three hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Exploration of methodologies for interactivity, interactivity, 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 C244. Letter grading.


146. Art and Practice of Motion Picture Producing. (4) Lecture, three hours; discussion, one hour. Exploration of role of film in both artist and business person. Comparative analysis of screenplays and completed films. Emphasis on assembly of creative team and analysis of industrial context, both independent and studio. Screenings viewed outside of class and on reserve at Powell Library. Letter grading.

147. Planning Independent Feature Production. (4) Lecture, three hours; laboratory, one hour. Analysis of procedure, problems, and budgets in planning feature-length screen production project, with emphasis on role of producer and creative organizational techniques of producing. Concurrently scheduled with course C247. Letter grading.

148. Advanced Television 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 small process-oriented, creative workshop environment. May be repeated twice for credit. Concurrently scheduled with course C248. Letter grading.

150. Cinematography. (4) (Formerly numbered 52.) Lecture, three hours; laboratory, three hours. Requisite: course 101A. Corequisite: course 154. Limited to Film and Television majors. Introduction to motion imaging photography for thorough understanding of fundamental tools and principles of cinematography to create images that support and enhance story of film. Achievement of principles of motion imaging photography through lectures, discussions, and shooting exercises. Development of cinematographer through shooting exercises during laboratory period, and acquisition of art of cinematography. Language and skills of image construction provided, as well as image analysis and deconstruction. Letter grading.

151. Introduction to Experimental Filmmaking. (4) Lecture, three hours; laboratory, to be arranged. Limited to Film and Television majors. Techniques of image manipulation, design, and art direction. Production and completion of exercise (no longer than three minutes), using 16mm nonsync sound film. May be repeated twice for credit. Letter grading.

152. Film and Television Sound Recording. (4) Lecture, three hours; laboratory, three hours. Enforced prerequisite: courses 101A, 185. Limited to Film and Television majors. Through discussion, demonstrations, and laboratory assignments, students learn digital audio tools and procedures available to today’s filmmakers. Preparation of original soundtracks; some lecture and lab activity on audio postproduction techniques. Letter grading.

153. Motion Picture Lighting. (4) Lecture, three hours; laboratory, three hours. Enforced prerequisites: courses 101A, 185. Limited to Film and Television majors. Through discussion, demonstrations, and laboratory assignments, students learn digital audio tools and procedures available to today’s filmmakers. Preparation of original soundtracks; some lecture and lab activity on audio postproduction techniques. Letter grading.

154. Film Editing. (4) Lecture, three hours; laboratory, two hours. Requisite: course 101A. Corequisite: course 150. Introduction to technical and theoretical problems of film editing, with practical experience in editing of image and synchronous sound. Letter grading.

154B. Advanced Film Editing. (4) Lecture, three hours; laboratory, one hour. Preparation of rough cut of existing project or proposal to edit work of another director. Enforced prerequisites: courses 154, 185. Limited to Film and Television majors in postproduction phase with advanced knowledge of organization and operation of postproduction process. Students may also propose edit significant scene given to them by instructor. Concurrently scheduled with course C454B. Letter grading.

155. Introduction to Digital Media and Tools. (4) Lecture, six hours; laboratory, one hour. Enforced prerequisite: course 101A. Limited to Film and Television majors. Instruction and exercises in basic concepts and software of virtual production environments and digital postproduction tools. Letter grading.

157. Lighting for Film and Television. (4) Lecture, two hours; laboratory, six hours. Requisite: course 52. Limited to Film and Television majors. Instruction and exercises in basic concepts and software of virtual production environments and digital postproduction tools. Letter grading.
C158. Digital Workflow. (2 to 4) Lecture; three hours; laboratory, two hours. Requisites: courses 52, 185. Limited to departmental majors. Through discussions, demonstrations, outside speakers, and laboratory assignments, demystification of ever-changing world of digital workflow, schedules, and budgeting their overall workflow in preproduction. May be repeated once for credit. Concurrently scheduled with course C454C. Letter grading.

163. Directing Cameras. (4) Laboratory, three hours. Enforced requisite: course 101A. Limited to Film and Television majors. Investigation of expressive potential 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.

C168. Creative Location Film Production. (6) 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. Analysis of location shooting and communication within limitations of production experience. Concurrently scheduled with course C468. Letter grading.

175A-175B. Film Production Workshop. (12 to 16) Limited to Film and Television majors. 175A. Lecture; four hours; laboratory, eight hours. Requisite: course 185. Course 175A is requisite to 175B. Writing, preproduction, and production for short film not to exceed 12 minutes, including credits. Letter grading. 175B. Lecture; three hours; laboratory, eight hours. Enforced requisite: course 175A. Completion of post-production (editing, creation of sound tracks) for short film begun in 175B. Concurrently scheduled with course C175. 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 are (1) preproduction rehearsals 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. (2 or 4) Laboratory, to be arranged. Supervised laboratory experience in various aspects of film and television production for students majoring in film and television. Limited to four units, but only 8 units may be applied toward Film and Television major. Letter grading.

180A. Animation Fundamentals. (6) 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 storyboard sketches. Offered in summer only. Letter grading.

180C. Stop Motion Fundamentals Workshop. (3) Lecture, six hours; laboratory, six hours. Exercises designed to teach technical skills, processes, and principles of motion and timing. Use of range of materials, building animation sequences in split-second increments arranged to give illusion of movement. Exploration of early history of stop motion. Collaborative creation of stop-motion film with each student directing and animating one fragment 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. Requisite: course C181A 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 C481B. P/NP or letter grading.

C181C. Animation Workshop. (4 or 8) Formerly numbered 181C.) 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 C481C. 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 development process. Basic introduction to story and exploration of proper technique for evaluating strength of stories and learning 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 analysis of strategies and operating principles that drive flow of revenue in 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 throughout all revenue streams. May be taken independently for credit. Letter grading.

183C. Producing III: Marketing, Distribution, and Exhibition. (4) Lecture; three hours; discussion, one hour. Open to nonmajors. Marketing and distribution of feature films across multiple exhibition platforms and subsequent marketing and consumption by audiences. Focus on engagement between distributor, exhibitor, and audience; and analysis of various conceptual frameworks and industrial strategies within which these relationships are conceived and operate. May be taken independently for credit. Letter grading.

184B. Overview of Contemporary Television Industry. (4) Lecture; three hours; discussion, one hour. 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. (6) Laboratory, six hours. Requisites: courses 52, 154, 155, 163. Limited to Film and Television majors. Introduction and exercises in all stages of film production. Letter grading.

C186A. Advanced Documentary Workshop. (4) Formerly numbered 186A.) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: course 185. Course 186A 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 of short documentary. Concurrently scheduled with course C430A. Letter grading.

C186B. Advanced Documentary Workshop. (4) Formerly numbered 186B.) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: course 186A. Intermediate 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 C430B. Letter grading.

C186C. Advanced Documentary Workshop. (4) Formerly numbered 186C.) Lecture, three hours; laboratory, three hours; fieldwork, 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 C430C. Letter grading.

188A. Special Courses in Film, Television, and Digital Media. (4) Lecture, three hours; discussion, one hour. Special topics in film, television, and digital media for undergraduate students taught on experimental 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 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 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours; discussion, to be arranged. May be repeated to a maximum of 12 units. P/NP or letter grading.

190. Directed Individual Study. (1 to 15) No credit. Open to nonmajors. Credit for Directed Individual Study is for USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

191. Internship Seminars: Film, Television, and Digital Media. (2) Seminar, two hours. Corequisite: course 194. Designed for students enrolled in departmental internships. General introduction to contemporary film and television industries and discussion and engagement with and expansion on internship experiences. Common business practices and expansion of critical understanding of industry at large. May be repeated for credit. Letter grading.

195CE. Corporate Internships in Film, Television, and Digital Media. (4) (Formerly numbered 195C.) Tutorial, one to five 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 issues related to internship site through series of reading assignments constructed by faculty sponsor and graduate student coordinator. May be repeated for credit with consent of Center for Community Learning. Individual contract with 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. Cullminating paper or project required. May be taken for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Seminar: Research, Methods, and Resources. (3) Seminar, three hours; discussion, two hours (additional screenings and/or video laboratory work as required). Designed for graduate students. Examination and study of research methods, techniques, and
resources related to film and television research, including development of computer skills for preparation of bibliographies, online database searching and retrieval and, when appropriate, use of computer/vid-eoeidic technology for research. 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, political-economic, geographic) that have been used to examine television production practices as cultural, social, and industrial phenomena, as basis for individual student research projects. 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, including innovations in marketing, licencing, distribution, industrial organization, creative work, new technologies, and evolving relations between fans and producers in digital economy. Letter grading.


203. Seminar: Film and Other Arts. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies in interrelationships between film and fine arts, or performing arts, or literature, with emphasis on ways these 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, two to four hours. Study of visual analysis (or textual analysis), using DVD accessing 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.

205A. Seminar: European Film History. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies in different periods of European cinema 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 specific topics. May be repeated twice for credit with topic change. Letter grading.

205B. 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 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 from its beginning in 1895 to transition to sound cinema in 1927 to 1930. Film viewings discussed in terms of genre, national cinema, formal development, and directors. Readings on film historical and theoretical issues. Letter grading.

207. Seminar: Experimental Media. (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. S/U or 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 writings of Arnheim, Eisenstein, Bazin, Kra-cauer, etc. 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 redefinition of aims and methods of film theory through contemporary writings. S/U or letter grading.

209A. Seminar: 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. Beginning 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 MA candidates. 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 department through lectures and academic paper presentation and offers students practice in presenting papers for professional conferences, CV writing seminars, job market/interview preparation seminars, and discussion of current topics and trajectory of area of cinema and media studies. May be repeated for maximum of 14 units. S/U grading.

213. Capstone Seminar. (6) Seminar, three hours. 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. Examination of major modes of theoretical reflection that bear on film and television study of central texts of such traditions as phenomenology, au- torialism, semiotics, psychoanalysis, sociology, etc. S/U or letter grading.

215B. Seminar: Text and Context in Intermedial Age. (6) 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; film screenings, three hours. Exploration of integration of costume design into filmmaking process and discussion of how the costume designer is positioned vis-à-vis other(s). Thematization of other is positioned vis-à-vis main stream critical discourse. Letter grading.

217. 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 social formation) 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). Thematization of other is concerned with theories of difference rather than similarity or identity—how other cultures enter into politics of representation and representation of politics through metaphors of (1) difference without opposition, (2) heterogeneity without hierarchy, and/or (3) otherness with violence. Examination of how women, national minorities, and Third World peoples have been rendered others; place of cinematic apparatus in this 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 film affects 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 or letter grading.

220. Seminar: Television and Society. (6) Seminar, for film and television courses, screenings, two to four hours. Designed for graduate students. Study of ways television forms affect and are affected by social behavior, belief, and value systems; study 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 film. 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. Study of ways film genres have influenced film. May be repeated twice for credit. S/U or letter grading.

244. Computer Applications for Film Study. (6) Lecture, three hours; film screenings, three hours. Survey of computer applications relevant to film study, princi-pally computer-video systems and image capture technology. S/U or letter grading.

255. Seminar: Videogame Theory. (6) Seminar, three hours; laboratory, three hours. Videogame theory, with exploration of nature of medium, rather than looking at 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 video-game 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/se-nior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of individual contributions in collaborative effort; examination of dis-tinctions and interests among the 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.

C242. 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 codes. Students conceive and produce several digital

282A. TV/Online Development I. (4) Seminar, three hours. Basic tenets and practices of television scripted shows and contemporary industry production and business practices. Development of original show concepts and pitch for review and feedback by class, instructor, and guests. Letter grading.

282B. TV Development II. (4) Seminar, three hours. Advanced analysis of television scripted shows and contemporary industry production and business practices. Development of new show concepts and series proposals for review and feedback by class, instructor, and guests. 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. (8) Seminar, three hours. Required course: 283A. Analysis 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 and 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. Required course: 283A. Practical knowledge about skills necessary 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. Students write speculative (spec) episode for existing one-hour drama series. Letter grading.

284B. Writing One-Hour Drama Pilot and Series Bible. (8) Seminar, three hours. Required course: 284A. Practice knowledge about skills necessary to be writer/executive producer of one-hour 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.

289A. Business Practices in Film and Television. (4) Discussion, three hours. Required course: course 297. Presentation of current status of financing/production/distribution agreements, union agreements, music, copyright, etc., necessary to understand film and television industry. S/U or letter grading.

289B. Strategy. (4) Lecture, three hours. Course 289A is not required. Examination of business realities of industry, with focus on techniques for analyzing behavior, making strategic decisions and overcoming 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 the entertainment industry. S/U or letter grading.

290A. Research and Development I. (4) Seminar, three hours. Forum for roundtable strategy sessions and mock story meetings with instructor, students, and industry guests to develop a one story idea for thesis project. S/U or letter grading.

290B. Research and Development II. (4) Seminar, three hours. Forum for roundtable strategy sessions and mock story meetings. Students must make concrete weekly progress on thesis project and adapt strategy based on feedback received. Development of marketing and business strategies for story idea set up in course 290A. S/U or letter grading.

290C. Independent Spirit: Creative Strategies for Financing and Distributing Independent Features. (4) Lecture, three hours. Course 289B is not required to 290C. Key insights into financing and distribution of independent or specialty films. Topics include film finance, production, marketing, distribution, agents, and new technology, with emphasis on applying this knowledge to individual student projects. S/U or letter grading.


291B. Feature Film Marketing. (4) Lecture, three hours. Course 291A is not required to 291B. Examination of numerous groups that are responsible for spe-
cific marketing components and make up marketing departments. Distribution and in-theater marketing, trailers, publicity, promotions, research, and media. Mechanics and levels of intuition required to make sure movies are seen by public. S/U or letter grading.

291C. Feature Film Distribution and Exhibition. (4) Lecture, three hours; laboratory, one hour. Requisite: course 291B. In-depth analysis of interrelated arenas of production, marketing, business affairs, media, and impact of international distribution and exhibition of studio releases. S/U or letter grading.

292A. Overview of Network Television Management. (4) Lecture, three hours. Designed to expand basic understanding of network and cable television business. Exploration of role of showrunner, executive producers, studio writers, and to develop concrete tools of writers. Designed to train writers who typically enter television as staff writers and to develop strategies to bring their feature film projects to life. S/U or letter grading.

292B. Television Development Workshop. (4) Lecture, three hours; workshop, one hour. Exploration of techniques and strategies for concept ideation, property acquisition, and television adaption. Development of television series concepts based on preexistent material or original creation. S/U or letter grading.

292C. Running Shows: Producing for Broadcast and Cable. (4) Lecture, three hours. Course 292B is not requisite to 292C. Exploration of role of writers-producer or showrunner 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 it is to assist writers-producers in highly collaborative process of creating, developing, producing, and scheduling television programming. S/U or letter grading.

294A. Contracts and Negotiation. (4) Lecture, three hours. Survey of range of contracts involved in studio productions, including literary submission and option agreements, artist employment, director employment, writer collaboration agreements, coproduction agreements, music rights license, etc. Actual studio agreements referenced to illuminate potential consequences of each transaction. Negotiation strategy exercises. S/U or letter grading.

294C. International Financing and Distribution. (4) Lecture, three hours. Course 294B is not requisite to 294C. Legal-based course dealing with independent and television productions, including literary submission and option agreements, artist employment, director employment, writer collaboration agreements, coproduction agreements, property rights, etc. Actual studio agreements referenced to illuminate potential consequences of each transaction. Negotiation strategy exercises. S/U or letter grading.

304A. Art of Presentation. (4) Lecture, three hours. Cultivation of skills needed for students to present themselves and their project goals with clarity and precision to industry professionals. Oral presentations designed to enhance student ability to deliver convincing arguments on range of topics. S/U or letter grading.


306. Digital Image and Manipulation on Set and in Post. (4) Lecture, six hours. Requisite: course 410B. Continuation of postproduction on projects started in courses 404A and 404B. Completion of all stages of production and postproduction on projects started in courses 404A and 404B. Letter grading.

310. Directing Actors for Camera Workshop. (4) Lecture, three hours; laboratory, three hours. Continuation of study of cinematography with emphasis on lighting. Exploration of elements of electronic and nonnarrative film imagery. One-minute experiments in relation of meaning to technique, including manipulation of optics, photochemistry, electronic processes, and in-camera methods. S/U or letter grading.

401. Film Analysis for Filmmakers. (4) Lecture, three hours; laboratory, three hours. Lecture/discussion/laboratory, six hours. Requisite: courses C186A-C186B-C403A-C403B-C403C. Advanced Documentary Workshops. (8–8) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisite: courses 405, 409, 410A, 410B, 410C, 433. Limited to 10 students per section. Production of 20-minute abstractive experimental film, video, or multimedia project. Students plan, design, and shoot their projects in first term and work as crew for each other in rotating assignments. In second term students must complete postproduction of their projects. S/U or letter grading.

404A–404B. Advanced Abstract/Experimental Media Workshops. (8–8) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisite: courses 405, 409, 410A, 410B, 410C, 433. Limited to 10 students per section. Production of 20-minute abstract 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 rotating assignments. In second term students must complete postproduction of their projects. S/U or 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 production (tools and practicum of medium) as each student writes/directs/edits six-minute film. May be repeated for credit. S/U or letter grading.

410C. Postproduction. (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 production (tools and practicum of medium) as each student writes/directs/edits six-minute film. May be repeated for credit. S/U or letter grading.

410D. Postproduction Sound. (2) Seminar, three hours. Requisites: courses 405, 409. Limited to and required of first-year MFA production program students. Technical and aesthetic aspects of postproduction sound recording, editing, and re-recording for film and television. Application of principles of sound design to student films while using UCLA's John Candy Room and Scoring Stage for Automatic Dialogue Replacement (ADR), Foley, and mixing. Use of Pro Tools LE for recording, editing, and mixing, selection and use of microphones and mixing consoles, and incorporation of Final Cut Pro soundtracks into mix environments. Preparation of ADR and Foley and present mix of edited dialogue/ADR, Foley, sfx, and music tracks by end of term. Letter grading.

410E. Production. (12) Lecture, three hours; field-work, 24 to 40 hours. Requisites: courses 401, 409, 410A through 410D, and corequisite of first-year MFA production/directing students. Designed to give hands-on experience in film production. Students prepare and direct six-minute films and serve in preassigned 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 exposure, 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 graduate film and television 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. Students record 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, six hours. Requisite: course 417. Limited to graduate film and television students. Supervised filming of short dramatic projects on sound stage and at exterior locations that explore complexity of process, emphasizing balance and collaboration essential to both directing and photography in its varied technical, production, and creative aspects. 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, lighting, and selection of film, camera, and lenses. S/U or letter grading.


423A. Direction of Actors for Film and Television. (4) Studio laboratory, six hours. Requisite: course 423A. Limited to graduate film and television students. Advanced study and practice of directing actors before camera. Emphasis on developing techniques for animation between director and actor on set in order to maintain continuity from shot to shot. S/U or letter grading.

4240. Screenwriting Fundamentals. (2) Lecture, one hour. Corequisite for graduate students enrolled in course 431. Examination of screenwriting fundamentals: structure, character and scene development, conflict, locale, theme, history of drama. Review of authors such as Aristotle. Concurrently scheduled with course C132. S/U or letter grading.

431. Introduction to Film and Television Screenwriting. (4) Lecture, three hours. Limited to graduate film and television students. Introductory course in process of film and television screenwriting. S/U or letter grading.

432. Writing Short Screenplays. (4) Lecture, three hours. Limited to and required of first-year MFA production program students. Concept formation, development, and writing of six-minute film script to be produced in courses 410A, 410B, 410C. Letter grading.


434. Advanced Writing for Short Film and Television Screenplays. (4) Discussion, three hours. Requisite: course 410C. Limit to graduate film and television students. Concept formation, development, and writing of dramatic film script to be produced as advanced thesis project. Letter grading.

435. Advanced Storytelling Tools for Screenwriters: Study and Practice. (4) Lecture, three hours. Recommended requisite: course C430 or 431. Instruction in identification and application of specialized narrative tools common to screenplays. Students view and analyze well-known films that employ these devices to significant and enduring effect. Students also read screenplays (or portions thereof) of these films to analyze how screenwriters convey each device within written form. Students write original scenes and/or synopses that demonstrate their practical mastery of these tools as they relate to their own development as screenwriters. S/U or letter grading.

436. Adaptation for Screen. (8) 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. Students workshop their own screenplays adapted from preselected list of stories. Letter grading.

437. Advanced Design for Screen. (4) 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. Students workshop their own screenplays adapted from preselected list of stories. Letter grading.

438. Advanced Design for Film and Television. (4) Laboratory, to be arranged. Limited to graduate film and television students. Advanced study and practice of techniques and methods of design for motion pictures. Art direction for advanced workshop productions. May be repeated for maximum of 16 units. S/U or letter grading.

439. Postproduction Sound. (2) Laboratory, three hours. Limited to Production MFA students. Technical and aesthetic aspects of postproduction sound recording, editing, and re-recording for film and television. Letter grading.

452C. Digital Audio Postproduction. (4) Lecture, three hours; laboratory, three hours. Limited to Film and Television majors. Through discussion, demonstration, and laboratory, students learn how to use digital audio tools and procedures available to today's filmmakers. Coverage of many technical, equipment, and software step-by-steps, with emphasis on creative process. Concurrently scheduled with course C152C. Letter grading.

453. Postproduction Sound Design. (2 to 4) Lecture, three hours. Designed to give film students insight into world of audio 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, music edit, create sound design to enhance story points, discover design opportunities, and select right sound effects. How to edit dialog for automatic dialogue replacement (ADR) and Foley sessions, and supervise final sound mix. Screening of numerous film clips to provide examples of postsound choices that demonstrate effective use of sound design. S/U or letter grading.

454B. Advanced Film Editing. (4) Lecture, three hours; laboratory, one hour. Preparation: submission of rough cut of existing project or proposal to edit work of another director. Limited to film and television students. Postproduction study of advanced principles and techniques of screenwriting with advanced knowledge of organization and operation of postproduction process. Students may also propose to edit significant scene given to them by instructor. Concurrently scheduled with course C154B. Letter grading.

454C. 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 C158. Letter grading.

459A–459B. Directing for Film and Television. (4–4) Lecture, three hours. Limited to graduate film and television students. Analysis and exploration, with specific readings and viewing of films, of the aesthetic and directorial approach to same literary material in theater, film, and television. S/U or letter grading.


465. Narrative Television Workshop. (8) Laboratory, eight hours. Supervised exercises in television multimedia direction, with emphasis on composition and sound, and communication with those in front of and behind camera. Letter grading.

468. 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 communicating the problems of preproduction 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 exploration of 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.


481B. 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. Letter grading.

482A-482B. Advanced Animation Workshops. (4 or 8 each) Lecture, three hours; studio, to be arranged. Requisites: courses 181A, 181B, 181C. Advanced organization 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. Creation and production of complete and original advanced computer animated film. Letter grading.

484A-484B. Research 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, constitutions 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. Specialized development and organization of proposed thesis project prior to advancement to candidacy. Should be taken term before student plans to advance to candidacy. S/U or letter grading.

487. Directed Individual Study: Postproduction Laboratory. (4) Laboratory, eight hours. Limited to MFA production program students. Completion of projects in final stages of postproduction. May not be repeated for more than 16 units. Letter grading.

488A. Interactive Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requisites: courses 181A, 181C, 489A. Organization and integration 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 animation to form completed project of selected interactive topic. May be repeated for maximum of 16 units. Letter grading.

489A. 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 in and supervised production of computer animation. May be repeated for maximum of 16 units. Letter grading.

489B. Production in Computer Animation. (4 to 8) Lecture, six hours; laboratory, four to eight hours. Requisite: course 489A. Instruction in creation, preparation, 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, 5, 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 university 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
College of Letters and Science
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Los Angeles, CA 90095-1571

Food Studies
310-206-1698
E-mail contact
Allison B. Carruth, PhD, Chair

Faculty Committee

Allison B. Carruth, PhD (English, Environment and Sustainability, Society and Genetics)
Akhila 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—it’s 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 lower-division courses for the minor. To apply, students must file a petition with College Academic Counseling, A316 Murphy Hall.

Required Lower-Division Courses (10 or 11 units):
- Environment 25 or Clusters M1CW, and one course from Community Health Sciences 48, Food Studies 27, M79, Italian 42C, Physiological Science 7, or World Arts and Cultures M79

- Required Elective Courses (20 or 21 units):

- 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.

To remain eligible for the minor, students must earn a minimum grade of C in Environment 25 or Clusters M1CW.

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 nutritional studies and food scientific literature. Exercises, discussions, reports, and readings designed to provide practices to become critical thinkers in food science and literature. P/NP or letter grading.

M79. Food Politics: 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 interdisciplinary field of food studies, 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.

M89. 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.

91HC. 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.

89H. 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 have an academic standing of a C- or higher in subject matter required. May be repeated for credit. Individual contract required. Honors content noted on transcript. Letter grading.

91H. 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 have an academic standing of a C- or higher in subject matter required. May be repeated for credit. Individual contract required. Honors content noted on transcript. 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. Introduction to interdisciplinary field of food studies and food culture in specific contexts. 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 lower-income communities. Reading of research from multiple disciplines 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.

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 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.

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 supervision of faculty mentors affiliated with Food Studies minor. Collaboration with faculty mentors on their research in area related to food studies. 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 LANGUAGE 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.

Course List

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-150B. Survey of Ancient Near Eastern Literatures in English

Arabic (Near Eastern Languages and Cultures)
150. Classical Arabic Literature in English
M151. Modern Arabic Literature in English

Armenian (Near Eastern Languages and Cultures)
150A. Survey of Armenian Literature in English
C152. Modern Armenian Drama as Vehicle for Social Critique

C153. Art, Politics, and Nationalism in Modern Armenian Literature

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)
125. Intervar Central European Prose
126. Coldwar Central European Culture
127. Central European Culture after Fall of Communism

Chinese (Asian Languages and Cultures)
70–70W. Classics of Chinese Literature
131. World Sinophone Literature: Theories and Texts
C150A. Lyrical 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
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>143A-143B</td>
<td>Ancient Tragedy, Comedy</td>
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<td>144.</td>
<td>Topical Studies in Ancient Culture</td>
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<tr>
<td>M145A-145B</td>
<td>Ancient and Roman Philosophy</td>
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<td>M146A-146B</td>
<td>Plato—Earlier Dialogues, Platonism</td>
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<td>M147.</td>
<td>Aristotle</td>
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<td>150A-150B</td>
<td>Female in Greek Language and Literature</td>
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<td>150B</td>
<td>Female in Roman Language and Literature</td>
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<td>162.</td>
<td>Classical Myth in Literature</td>
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<td>163.</td>
<td>Ovid and Consequences</td>
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<tr>
<td><strong>Comparative Literature (Comparative Literature)</strong></td>
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<tr>
<td>All undergraduate courses</td>
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<tr>
<td><strong>Czech (Slavic, East European, and Eurasian Languages and Cultures)</strong></td>
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<tr>
<td>155.</td>
<td>Survey of Czech Literature from Middle Ages to Present</td>
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<tr>
<td><strong>Dutch (Germanic Languages)</strong></td>
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<td>10.</td>
<td>Contemporary Dutch Society and Culture: Beyond Rembrandt, Cheese, and Wooden Shoes</td>
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<tr>
<td>113.</td>
<td>Modern Dutch and Flemish Literature in Translation</td>
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<tr>
<td><strong>English (English)</strong></td>
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<tr>
<td>111A.</td>
<td>Hebrew Bible in Translation</td>
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<td>111B.</td>
<td>Christian Biblical Texts in Translation</td>
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<td>111C.</td>
<td>Topics in Biblical Literature</td>
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<td>112A.</td>
<td>Oral Tradition</td>
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<td>112B.</td>
<td>Celtic Mythology</td>
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<td>112C.</td>
<td>Survey of Medieval Celtic Literature</td>
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<td>112D.</td>
<td>Celtic Folklore</td>
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<tr>
<td><strong>French (French and Francophone Studies)</strong></td>
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<td>112.</td>
<td>Medieval Foundations of European Civilization</td>
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<td>M140.</td>
<td>Women’s Studies in French Literature</td>
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<td>160.</td>
<td>Francophone Culture in English</td>
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<tr>
<td>161.</td>
<td>French and Francophone Theater in Translation</td>
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<td>163.</td>
<td>French and Francophone Short Story in Translation</td>
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<td>164.</td>
<td>French and Francophone Novel in Translation</td>
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<tr>
<td>166.</td>
<td>French and Francophone Autobiography in Translation</td>
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<td>167.</td>
<td>French and Francophone Intellectual History in Translation</td>
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<td>171.</td>
<td>Medieval Flix</td>
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<td>172.</td>
<td>Francophone Cinema and Literature in Translation</td>
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<tr>
<td>191A.</td>
<td>Variable Topics Research Seminars in Translation</td>
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<tr>
<td><strong>German (Germanic Languages)</strong></td>
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<tr>
<td>50A-50B.</td>
<td>Great Works of German Literature in Translation</td>
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<tr>
<td>56.</td>
<td>Figures Who Changed World</td>
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<td>57.</td>
<td>Hollywood and Germany</td>
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<td>58.</td>
<td>Knights and Ladies, Sex and Power at Medieval Court</td>
</tr>
<tr>
<td>59.</td>
<td>Holocaust in Film and Literature</td>
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<td>60W.</td>
<td>War</td>
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<td>61A-61D.</td>
<td>Modern Metropolis</td>
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<td>M70.</td>
<td>Origin of Language</td>
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<td>102.</td>
<td>War, Politics, Art</td>
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<tr>
<td>103–104.</td>
<td>German Film in Cultural Context</td>
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<td>M105.</td>
<td>Tristan, Isolde, and History of Heterosexuality</td>
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<td>109.</td>
<td>Jewish Question and German Thought</td>
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<td>110.</td>
<td>Special Topics in Modern Literature and Culture</td>
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<td>111.</td>
<td>Thomas Mann, Hesse, Böll, and Grass: German Nobel Prize Winners in English</td>
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<td>112.</td>
<td>Feminist Issues in German Literature and Culture</td>
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<td>113.</td>
<td>German Folklore</td>
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<td>114.</td>
<td>Fairy Tales and Fantastic</td>
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<td>117.</td>
<td>German Exile Culture in Los Angeles</td>
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<tr>
<td><strong>Hungarian (Slavic, East European, and Eurasian Languages and Cultures)</strong></td>
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<td>121.</td>
<td>Survey of Hungarian Literature in Translation</td>
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<td><strong>Iranian (Near Eastern Languages and Cultures)</strong></td>
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<tr>
<td>150A-150B.</td>
<td>Survey of Persian Literature in English</td>
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<td><strong>Italian (Italian)</strong></td>
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<tr>
<td>42A–42B–42C.</td>
<td>Italy through Ages in English</td>
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<td>46.</td>
<td>Italian Cinema and Culture in English</td>
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<tr>
<td>50A–50B.</td>
<td>Masterpieces of Italian Literature in English</td>
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<tr>
<td>102A–102B–102C.</td>
<td>Italian Cultural Experience in English</td>
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<td>110.</td>
<td>Dante in English</td>
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<td>140.</td>
<td>Italian Novella from Boccaccio to Basile in Translation</td>
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<td>150.</td>
<td>Modern Fiction in Translation</td>
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<td>151.</td>
<td>Italy and Asia</td>
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<td>152.</td>
<td>Italy between Europe and Africa</td>
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<td>M158.</td>
<td>Women, Gender, and Sexuality in Italian Culture</td>
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<tr>
<td>230A-230B.</td>
<td>Folk Tradition in Italian Literature</td>
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<tr>
<td>260A.</td>
<td>Alternative Perspectives in Italian Culture: Studies of Folk Tradition in Italian Literature</td>
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<td>260B.</td>
<td>Women in Italian Culture</td>
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<td>260C.</td>
<td>Studies in Italian Cinema</td>
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<tr>
<td><strong>Japanese (Asian Languages and Cultures)</strong></td>
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<td>70.</td>
<td>Images of Japan: Literature and Film</td>
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<td>75.</td>
<td>Anime</td>
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<td>C150.</td>
<td>Topics in Japanese Literature and Philosophy</td>
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<td>151.</td>
<td>Japanese Literature in Translation: Modern</td>
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<tr>
<td>154.</td>
<td>Postwar Japanese Culture through Literature</td>
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<td>M156.</td>
<td>Literature and Technology</td>
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<td>157.</td>
<td>Classical Japanese Drama: Great Tradition</td>
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<td>170.</td>
<td>Japanese Tales of Supernatural</td>
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<td>172.</td>
<td>Fiction and Plays of Floating World</td>
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<td>174.</td>
<td>Classical Japanese Poetry</td>
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<tr>
<td><strong>Jewish Studies (Near Eastern Languages and Cultures)</strong></td>
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<tr>
<td>M150A–150B.</td>
<td>Hebrew Literature in English</td>
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<td>M151A–151B.</td>
<td>Modern Jewish Literature in English</td>
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<td>175.</td>
<td>Modern Israeli Literature Made into Films</td>
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<tr>
<td><strong>Korean (Asian Languages and Cultures)</strong></td>
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<tr>
<td>C150.</td>
<td>Korean Literature in Translation: Classical</td>
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<tr>
<td>C151.</td>
<td>Korean Literature in Translation: Modern</td>
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<tr>
<td>154.</td>
<td>Contemporary Korean Culture through Literature and Film</td>
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<tr>
<td><strong>Polish (Slavic, East European, and Eurasian Languages and Cultures)</strong></td>
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<tr>
<td>152A–152B–152C.</td>
<td>Survey of Polish Literature</td>
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<tr>
<td><strong>Portuguese (Spanish and Portuguese)</strong></td>
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<tr>
<td>40A–40B.</td>
<td>Portuguese, Brazilian, and African Literature in Translation</td>
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<td>46.</td>
<td>Brazil and Portuguese-Speaking World</td>
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<tr>
<td>141A.</td>
<td>Literature and Film in Portuguese</td>
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<tr>
<td>142C.</td>
<td>Travel Narratives, Testimony, Autobiography</td>
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<tr>
<td><strong>Romanian (Slavic, East European, and Eurasian Languages and Cultures)</strong></td>
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<td>152.</td>
<td>Survey of Romanian Literature</td>
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<tr>
<td><strong>Russian (Slavic, East European, and Eurasian Languages and Cultures)</strong></td>
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<tr>
<td>25–25W.</td>
<td>Russian Novel in Translation</td>
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<td>30.</td>
<td>Russian Literature and World Cinema</td>
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<tr>
<td>M118.</td>
<td>History of Russia, Origins to Rise of Muscovy</td>
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<td>119.</td>
<td>Golden Age and Great Realists</td>
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<td>120.</td>
<td>Literature and Revolution</td>
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<td>121.</td>
<td>Russian Pop Culture</td>
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<tr>
<td>C124C–C124T.</td>
<td>Studies in Russian Literature</td>
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<tr>
<td>125.</td>
<td>Russian Novel in Its European Setting</td>
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<tr>
<td>126.</td>
<td>Survey of Russian Drama</td>
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<td>M127.</td>
<td>Women in Russian Literature</td>
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<td>128.</td>
<td>Russian Science Fiction</td>
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<td>C170.</td>
<td>Russian Folklore</td>
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<tr>
<td><strong>Scandinavian (Scandinavian Section)</strong></td>
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<tr>
<td>40–40W.</td>
<td>Heroic Journey in Northern Myth, Legend, and Epic</td>
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<tr>
<td>50–50W.</td>
<td>Introduction to Scandinavian Literatures and Cultures</td>
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<tr>
<td>C131.</td>
<td>Introduction to Viking Age</td>
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<tr>
<td>C133A.</td>
<td>Saga</td>
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<td>134.</td>
<td>Scandinavian Mythology</td>
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<tr>
<td>C137.</td>
<td>Old Norse Literature and Society</td>
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<td>138.</td>
<td>Vikings</td>
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<tr>
<td>C141A.</td>
<td>Theory of Scandinavian Novel</td>
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<td>141B.</td>
<td>Nordic Poetry</td>
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<tr>
<td>141C.</td>
<td>Short Story in Scandinavia</td>
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<td>142A.</td>
<td>Introduction to Nordic Theater and Drama</td>
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<td>143A.</td>
<td>Scandinavian Detective Fiction</td>
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<td>143C.</td>
<td>Scandinavian Crime Literature</td>
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<tr>
<td>CM144A.</td>
<td>Voices of Women in Nordic Literature</td>
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<tr>
<td>C145A.</td>
<td>Henrik Ibsen</td>
</tr>
<tr>
<td>C145B.</td>
<td>Knut Hamsun</td>
</tr>
<tr>
<td>C146A.</td>
<td>August Strindberg</td>
</tr>
<tr>
<td>147A.</td>
<td>Hans Christian Andersen</td>
</tr>
<tr>
<td>C147B.</td>
<td>Søren Kierkegaard</td>
</tr>
<tr>
<td>147C.</td>
<td>Karen Blixen</td>
</tr>
<tr>
<td>148A.</td>
<td>Hallôr Laxness</td>
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<td>152.</td>
<td>Backgrounds of Scandinavian Literature</td>
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<td>154.</td>
<td>Romanticism</td>
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<td>155.</td>
<td>Modern Breakthrough</td>
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<td>156.</td>
<td>Scandinavian Literature of 20th Century</td>
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<td>157.</td>
<td>Contemporary Nordic Literature</td>
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<td>161.</td>
<td>Introduction to Nordic Cinema</td>
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<td>C163A.</td>
<td>Introduction to Danish Cinema</td>
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<tr>
<td>C163B.</td>
<td>Introduction to Swedish Cinema</td>
</tr>
<tr>
<td>C163C.</td>
<td>Introduction to Norwegian Cinema</td>
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<tr>
<td>C166A.</td>
<td>Ingmar Bergman</td>
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<tr>
<td>C166C.</td>
<td>Carl Dreyer</td>
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<tr>
<td>C171.</td>
<td>Introduction to Scandinavian Folklore</td>
</tr>
<tr>
<td>172A.</td>
<td>Nordic Folk and Fairy Tales</td>
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</tbody>
</table>
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 units of upper-division 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.

FRENCH AND FRANCOPHONE STUDIES

College of Letters and Science
212 Royce Hall
Box 951550
Los Angeles, CA 90095-1550

French and Francophone Studies
310-825-1145

Dominic R. Thomas, PhD, Chair
Jean-Claude Carron, Docteur és Lettres,
Undergraduate Studies Director

Faculty Roster

Professors
Jean-Claude Carron, Docteur és Lettres
Eleanor K. Kaufman, PhD
Efrain Kiratla, PhD
Alain M. Matanou, DEA
Sara E. Melzer, PhD
Laure Murat, Docteur en Histoire
Allen F. Roberts, PhD
Zinka Shaluljak, PhD
Malina Stefanovska, PhD

Dominic R. Thomas, PhD (Madeleine L. Letessier
Professor of French and Francophone Studies)
Stephen D. Werner, PhD

Professors Emeriti
Marc J. Bensimon, PhD
Patrick J. Coleman, PhD
Eric L. Gans, PhD
Francoise Lionnet, PhD
Andrea N. Loselle, PhD

Associate Professor
Lia N. Brozgal, PhD

Senior Lecturer
Kimberly Jansma, PhD

Lecturer
Laurence M. Denié-Higney, PhD

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.
Plan II: Interdisciplinary French/Francophone Studies

Required: French 100, 101, one course from 114A, 114B, or 114C, one senior capstone seminar (99B), 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 speech, 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, 110, one upper-division French elective course, and Linguistics 103, 110, 120A, 120B. Each course must be taken for a letter grade.

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 and Linguistics 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 they 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.

Honors Program

The department encourages those students in the French majors with initiative and independence of mind, who desire an enriched individualized course of study, to apply for the honors program.

The honors program is designed for French majors who have fulfilled their lower-division requirements and have a 3.5 departmental grade-point average (CGA). Students whose GPA falls between 3.3 and 3.5 should submit a composition from an advanced language or literature course to the honors committee. If the work submitted meets with approval, students are admitted to the program.

To graduate with departmental honors, students must complete a minimum of two honors projects in the context of nonhonors upper-division courses (French 115 and above) taken for honors credit. They must do an honors project (a research paper of 12 to 15 pages) in addition to the regular course requirements. An honors contract must be signed before the end of the third week of the term. After completing the project, students fill out a completion form.

On the basis of their coursework and field of interest, students are expected to formulate a research topic they wish to pursue in greater depth. They may begin the honors program concomitantly with the consent of the instructor, but cannot use those courses to replace an honors project. Departmental honors are recorded on the final transcript if students fulfill all requirements for the program. They may submit their final honors thesis for the departmental prize.

French Minor

To enter the French minor, students must have an overall grade-point average of 2.0 or better.

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.
Graduate Degrees

The Department of French and Francophone Studies offers Master of Arts (MA), Candidate in Philosophy (CPhI), 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 for Graduate Students. (3) Lecture, four hours. Enforced requisite: course 2 with grade of C– or better.
3. Elementary French. (4) Lecture, five hours. Enforced requisite: course 1 with grade of C– or better.

Intermediate French

4. Elementary French. (4) Lecture, five hours. Enforced requisite: course 3 with grade of C– or better.
5. Intermediate French. (4) Lecture, four hours. Enforced requisite: course 4 with grade of C– or better.

Upper-Division Courses

114B. 17th and 18th Centuries. (3) Lecture, three hours. Requisite: course 12. Study of selections from major works of classicism and Enlightenment, including those by Racine, Pascal, La Fayette, La Fontaine, La Côte, Diderot, Voltaire, and Rousseau. P/NP or letter grading.
116. Studies in Medieval French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of medieval and Renaissance literature, including lyric poetry and narrative romance, history of medieval warfare, comedy, and class structures. May be repeated for credit with topic change. P/NP or letter grading.
117. Studies in 17th-Century French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of 17th-century French culture and literature, including theater, philosophers, moralists, novelists, and cultural, political, social, religious, and courtly aspects. 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 novel, theater, philosophers, and theoretical writings. May be repeated for credit with topic change. P/NP or letter grading.
119. Studies in 19th-Century French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of 19th-century French culture and literature, including Romanticism, generation of 1848, naturalism and symbolism, and genres and trends from 1885 through World War I. May be repeated for credit with topic change. P/NP or letter grading.

In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
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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 poets. May be repeated for credit with topic change. P/NP or letter grading.

121. Studies in Francophone Cultures and Literatures. (4) Lecture, three hours. Taught in French. Study of Francophone cultures and literatures, including works by poets, playwrights, and novelists from Caribbean, North Africa, Quebec, sub-Saharan Africa, Africa, immigrants' narratives, and colonialism and postcolonial studies. 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 poets. May be repeated for credit with topic change. P/NP or letter grading.

131. French and Francophone Theater. (4) Lecture, three hours. Taught in French. Through plays of 20th century, analysis of struggles of individuals and social groups in contexts that are historical, political, philosophical (existentialism, absurd), and cultural (colonialism and conformism). May be repeated for credit with topic change. Letter grading.


134. French and Francophone Novel. (4) Lecture, three hours. Taught in French. Study of Francophone novels and readings of major novelists. May be repeated for credit with topic change. P/NP or letter grading.


137. French and Francophone Intellectual History. (4) Lecture, three hours. 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.


141. French Cinema. (4) Lecture, three hours. Study of French cinema and cinematographers in generic, thematic, and sociocultural aspects. May be repeated for credit with topic change. P/NP or letter grading.


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 postcolonial Francophone world. May be repeated for credit with topic change. P/NP or letter grading.

161. French and Francophone Theater in Translation. (4) Lecture, three hours. Through plays of 20th century, analysis of struggles of individuals and social groups in contexts that are historical, political, philosophical (existentialism, absurd), and cultural (colonialism and conformism). May be repeated for credit with topic change. P/NP or letter grading.


171. Medieval Fix. (4) Lecture, three hours. Examina- tion of medieval culture, such as gender, class, race, religion, sexuality, love, and death. Explo- ration of each of these key terms in Middle Ages and look at Middle Ages as projection screen for interro- gating, contesting, and resolving contemporary de- bates on gender, class, race, and religion. Contrasting of medieval and modern round issue of difference and diversity; sessions to be situated in their historical cross-cultural contexts. Film screenings accompanied by medieval texts. P/NP or letter grading.


189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Enforced requisite: course 12 or 100. Taught in French. Topic to be announced each term. Topics include majors, writers, genres, cultural movements, or theoretical practices. Reading, discussion, and development of culminating project. May be repeated for credit with consent of major adviser. P/NP or letter grading.

191A. Variable Topics Research Seminars in Trans- lation. (1 to 4) Seminar, three hours. Research seminars on topics to be announced each term. Topics include majors, writers, genres, cultural movements, or theoretical practices. Reading, discussion, and development of culminating project. May be repeated for credit with consent of major adviser. 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 majors, writers, genres, cultural movements, or theoretical practices. Reading, discussion, and development of culminating project. May be repeated for credit with consent of major adviser. 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 a 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.

198. Honors Research in French. (4) Tutorial, three hours. Limited to junior/senior French majors with 3.5 departmental and 3.25 overall grade-point averages. Development and completion of honors thesis or comprehensive project. May be repeated for credit with supervi- sion of faculty member. May be repeated for credit. In- dividual contract required. Letter grading.

199. Directed Research or Senior Project in French. (2 to 4) Tutorial, to be arranged. Limited to ju- niors/seniors. Supervised individual research or inves- tigation 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


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. Intro- duction to theoretical approaches to popular and mass culture, and to postcolonial and Francophone cultures. Topics include emergent disciplines and theo- ries such as sociology and structuralism, city, revolu- tion, avant-garde strategies, media, diaspora during postmodernization, Algerian War, May 68, and be- yond. Theorists include Barthes, de Certeau, Bour- dieu, Baudrillard, Lyotard, Ross, Rey Chovil, Virilio. S/U or letter grading.


207. Studies in History of Ideas. (4) Seminar, three hours. Particular problems in French literature 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) Seminar, 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 in critical theory. 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. 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.


504. 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

GENDER STUDIES
College of Letters and Science
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Gender Studies
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Elizabeth A. Marchant, PhD, Chair
Faculty Roster

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Rachel C. Lee, PhD
Purnima Mankekar, PhD
Kathleen A. McHugh, PhD
Nancy M. Mithlo, PhD
Rafael Perez-Torres, PhD
Shereen H. Razack, PhD (Penny Kanner Endowed Professor of Women’s Studies)
Lucia Re, PhD, Dottore in Lettere
Abigail C. Saguy, PhD
Jennifer A. Sharpe, PhD
David Delgado Shorter, PhD
Juliet A. Williams, PhD

Professors Emeriti
Sandra Héle, PhD
Sandra Harding, PhD
Françoise Lionnet, PhD
Christine A. Littleton, JD
Susan K. McClary, PhD

Associate Professors
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Lucy M. Burns, PhD
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Aisha K. Finch, PhD
Mishuana R. Goeman, PhD
Sarah Haley, PhD
Elizabeth A. Marchant, PhD
Uri G. McMillan, PhD
Safiaa Y. Noble, PhD
Kathryn Norberg, PhD
Shannon E. Speed, PhD
Sharon J. Traweek, PhD

Assistant Professors
Julian T. Anesi, PhD
Joshua J. Guzman, PhD
Judy J. Han, PhD
Zeynep K. Korkmaz, 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 skills. Core undergraduate courses contextualize foundational theories and key analytic concepts within the study of different historical periods and social movements. In designing 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, feminism 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 and 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 198A 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 major 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 advisers in 1120 Rolfe Hall. They are encouraged to declare the minor as early as possible.

Required Lower-Division Course (5 units): Gender Studies 10. 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. (8) 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, sexualities, masculinities, 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 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. 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

101W. Writing Gender. (5) Lecture, three hours. Requisite: English Composition 3. Development of critical reading and writing skills necessary for academic success. Students engage assigned readings in conversation with week’s leading question. Generation and continuous development of paper topic as result of in-class discussions and formal writing exercises. Small writing groups assist students in understanding relationships between how written thoughts are presented and how they are comprehended by different readers. Students gain understanding of writing process, including topic conceptualization, objective of writing project, organization of thoughts and resources, selection of objects of study, personal writing style, etc. Satisfies Writing II requirement. Letter grading.

102. Power. (4) Lecture, three hours. Enforced requisite: course 10. Consideration of how feminist social movements have identified and challenged gender-based subordination and ways feminist theorists have conceived and critiqued traditional theories of power. How have women’s and other social movements defined and challenged social, political, and economic
103. Knowledge. (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Exploration of social production of knowledge about gender and sexual systems. Students engage key issues in feminist theory and feminist epistemology. How do feminist scholars identify and frame knowledge production? How is knowledge about marginalized subjects produced? How has feminism challenged dominant understandings of knowledge, rationality, objectivity, and scientific method? How have social movements sought to change traditional modes of knowledge production? P/NP or letter grading.

104. Bodies. (4) Lecture, three hours. Enforced requisite course 10. Exploration of scholarly theories and 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? How have meanings of terms sex and gender varied across time and place? Has gendered body been represented in different visual cultures? How have embodied identities been produced and diffused, both geographically and geographically? 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 M109B, Gender and Women's Studies M109C, 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.

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 gender and sexuality; special considerations of women's ability 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, Ralph Waldo Emerson, 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 in 1969. Works are examined as origins and beginning of modern lesbian and gay rights movement in U.S. Writings and films by such authors as Andrew Hol- leran, Leslie Feinberg, Achy Obejas, Essex Hemphill, Audre Lorde, Cheryn 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 focus on particular problem or issue of interest; topics vary with instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M106. Imaginary Women. (5) (Same as Honors College M106B) Seminar, designated for juniors/seniors. Study of four female cultural archetypes—absconding wife/mother, infanticide mother, intellectual woman, and warrior woman—as they appear in 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, cultural production, and literary and visual cultures. 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: English Composition 3. Examination of literary and cultural production through lenses of gender and sexuality. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic and include other intersecting 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.

M109. Women in Jazz. (4) (Same as African American Studies M109 and Ethnomusicology M109) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied 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.

M110C. Topics in Feminist Philosophy: Metaphysics and Epistemology. (4) (Same as Philosophy M118) Lecture, three hours; discussion, one hour (when scheduled). Requisite for Gender Studies majors: course 10; for other students: one philosophy course. Examination in depth of different theoretical positions on gender and women as they have been applied to study of philosophy. Emphasis on theoretical contributions made by new scholarship on women in philosophy. Critical examination of prudential and epistemological 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 M111) Lecture, eight hours; discussion, one hour. Historical issues and critical approaches to women and cinema and inclusion of 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; discussion, one hour. 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: course 10. Analysis of variety of contemporary sex work both within and without feminist perspective. Examination of how race, class, and gender affect experience and perception of erotic labor, and consideration of critically feminist responses by queers or others 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, as well as articles from current periodicals 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, culture, and scientific study of lesbians, gay men, bisexuals, transgendered, 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 Orientations. (Same as English M115, Lesbian, Gay, Bisexual, Transgender, and Queer Studies M115.) Lecture/discussion, three hours. Requisite: course 10 or M114. Studies in arts, humanities, social sciences, and/or life sciences dealing with issues of gender, sexuality, and queer identities. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M116. Sexuality and City: Queer Los Angeles. (4) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M116) Lecture, three hours; discussion, one hour. Enforced requisite: course 10 or M114. Examinations of sexual and gender minorities in various communities, both historical and contemporary, in Los Angeles with an emphasis on the politics of space and the city. P/NP or letter grading.

117. Introduction to Queer Latina/Latino Studies. (4) Lecture, three hours. Examination of production of Latina/Latino identity and its limitations as it emerges within contemporary literature, music, film, and performance. 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. and abroad from a queer anal-
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M141. Gender, Culture, and Capitalism. (4) Lecture, three hours. Examination of intersections of production—and reproduction—of and resistance to gendered, racialized, and classed inequalities through active analysis of advertisements, television serials, Disney fairy tales, and performative forms like fortunetelling. Focus on relationships between gender, culture, and capitalism through lenses of transnational feminist and queer cultural studies to explore gendered processes of production and consumption of culture under capitalism. P/NP or letter grading.

142. Race, Gender, and Punishment. (4) Seminar, three hours. Enforced requisite: course 10. Examination of what crisis scholars have called prison industrial complex in the United States. How do populations of incarcerated people understand their incarceration? How do prison activists resist imprisonment or build a restorative justice movement? How do political organizations work to change legislation or reduce imprisonment? P/NP or letter grading.


M144. Women’s Movement in Latin America. (4) (Same as Chicana and Chicano Studies M144 and Labor and Workplace 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 consciousness that have emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and new social movements that are concerned with issues of 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 history and political conditions that give rise to women’s resistance, as well as major debates in field of study. P/NP or letter grading.

M145. African American Women’s History. (4) Seminar, three hours. Enforced requisite: course 10. Historical examination of struggle of African American women from pre-antebellum era to present. By situating their experiences within major historical transitions in American history, exploration of key themes, including gender formation, sexuality, labor and class, collective action, gender and sexual violence, reproduction, and role of law. How have intersecting forms of oppression impacted black women’s historical lives? How is difference centered on the interconnected and overlapping ideologies of race and gender? How do historians uncover their historical lives and what are challenges to such discoveries? Examination of their individual and collective struggles for freedom from racism, sexism, and heteropatriarchy as well as their participation in and challenge to social movements, including suffrage, women’s liberation, civil rights, and black power. P/NP or letter grading.


M147A. Psychology of Lesbian Experience. (4) (Same as Chicana and Chicano Studies M147A) Lecture, two hours; discussion, one hour. Requisite: course 10 or M141 or Psychology 10. Designed for juniors/seniors. Review of research and theory in psychology and gender studies 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 theory about lesbians in sociocultural context. P/NP or letter grading.

M147B. History of Women in Colonial British America (1611-1783). (4) (Same as History M147B) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in history of early American women’s lives and experiences in English and 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 CM147.) Lecture, four hours. Feminist theories of transnational organizing. Exploration of gender and race as central to processes of globalization and emergence of new identities and voices in the transnational public sphere. Encompassed in transnational public relations. Exploration of how questions of race and gender influence global economic processes and impact local actors and communities. In time when people, capital, cultures, and technologies cross national borders with growing frequency, discussion of process of accelerated globalization has been linked to feminization of labor and migration. Critical review of relevant theoretical issues using ethnography, 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.

M148. Women’s Voices: Their Critique of Anthropology of Japan. (4) (Formerly numbered M148P.) (Same as Anthropology M148P) Lecture, three hours. Requisite: Anthropology 3, or anthropology major or minor. Preparation: prior anthropology or gender studies courses. Designed for junior/social sciences majors. Comparative study of women’s lives and gender systems in cultures from anthropological perspective. Critical review of relevant theoretical issues using ethnography, 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.

M154A. History of Women in the U.S.: Rebellious U.S., including themes from politics, sports, civil rebellion, and body. Examination of dramatic challenges to such discoveries? Examination of their individual and collective struggles for freedom from racism, sexism, and heteropatriarchy as well as their participation in and challenge to social movements, including suffrage, women’s liberation, civil rights, and black power. P/NP or letter grading.

M154T. Women’s Voices: Their Critique of Anthropology of Japan. (4) (Formerly numbered M145T.) Lecture, three hours. Requisite: Anthropology 3. Preparation: prior anthropology or social science courses. Comparative study of social movements (e.g., nationalist, socialist, liberal/reform), beginning with Russia and China and including Cuba, Guatemala-Bissau, Mexico, China, and Iran. Analysis of women’s participation in social transformations and the centrality of gender interests. P/NP or letter grading.

M154Q. Selected Topics in Gender Systems. (4) (Formerly numbered M145Q.) (Same as Anthropology M145Q) Lecture/discussion, three hours. Requisite: Anthropology 3, or anthropology major or minor. Preparation: prior anthropology or gender studies courses. Designed for junior/social sciences majors. Comparative study of women’s lives and gender systems in cultures from anthropological perspective. Critical review of relevant theoretical issues using ethnography, 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.

M149. Gender, Disability, and Education. (4) (Same as Communication M149 and Labor and Workplace Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/senior Communication Studies and Gender Studies majors and Labor and Workplace Studies minors. Examination of manner in which media culture produces people to perceive various dominant and dominant and/or colorized groups of people. Ways in which women, gay, lesbian, bisexual, transgender, racial, and ethnic marginalized peoples, class relations, and other subaltern or subordinated groups are presented and often misrepresented in media. Investigation and employment of theoretical frameworks. Discussion of feminist theories for understanding ideological nature of stereotyping and politics of representation through use of media, guest presentations, lectures, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.

152. Gender, Disability, and Education. (4) Lecture, three hours. Drawing on critical theory, study engages implications of disability as well as theorized, constructed, and lived as a social and cultural condition. Study bridges disability scholarship between global North and South, as well as interdisciplinary fields of feminist disability studies—which assumes disability is always inseparably linked to other social markers, such as gender, race, sexuality, and social class—and indigenous studies—which studies complex and diverse cultures and histories of indigenous peoples in the Americas. Study addresses topics to disability, gender, and education through decolonial lenses and explores topics of phenomenology of lived body and relations to land. P/NP or letter grading.


M156A. History of Women in the U.S.: Rebellious Women of 20th Century. (4) Lecture, three hours. Limited to juniors/seniors. Introduction to major and minor figures and movements for social change in the U.S., including themes from politics, sports, civil rebellions, and body. Examination of dramatic challenges to gender roles over course of the 20th century through actions of rebellious women who led way for myriad of changes in social lives. Offered in summer only. P/NP or letter grading.

M157. Chicana Historiography. (4) (Same as Chicana and Chicano Studies M157 and History M151D.) Lecture, four hours. Examination of Chicana historiography, focusing closely at history of Chicana woman. How has the history of Chicana woman placed Chicanas into particular narratives. Using Chicana feminist approaches to study of history, revisiting of specific historical periods and moments such as Spanish Conquest, Mexican Period,
American Conquest. Mexican Revolution, and Chi- 
canismo Movement to excavate untold stories about women's participation in and contribution to making of Chicana and Chicano history. P/NP or letter grading.

M158. Women, Gender, and Sexuality in Italian Cul-
ture. (4) (Same as Italian M158.) Lecture, three hours; discussion, one hour. Analysis of gender roles, causes, and consequences of gender inequality, and recent changes in gender relations in modern Italian society. P/NP or letter grading.

M159. Pornography and Evolution. (4) (Same as Communication M159.) Lecture, three hours. Discussion and homework assignments. Techniques of pornography as a component of course CM178. Concurrently scheduled with course CM278L. Letter grading.

160. Sporting Bodies. (4) Lecture, three hours. Re-
commended prerequisite: course 10. From Don Imus’ “nappy-headed hos” comment to controversies about transgender athletes or athletes with prosthetics; from coverages of magazines to violence in Dodger’s Stadium parking lot; footballers not standing during national anthem, college men’s teams rating women’s teams in terms of sexual positions, unionization of athletes—discourses of sport draw heavily upon extant ideolo-
gies of gender, and race. Historical and critical introduction to critical analyses of social categories and how they are represented and reproduced in sports and media. Critical examination of historical social values and how they are reproduced through sport. P/NP or letter grading.

M161. Sports, Normativity, and Body. (4) (Same as Disability Studies M161.) Lecture, four hours. Since creation of International Olympic Committee in 1894, athletes with disabilities have had, and been denied, formal opportunities to compete with able-bodied ath-
etes. Overview of some major topics of discussion concerning intersections of athletic competition and disability, and correlates of these. Emphasis on perspectives and themes on disability and sport, such as passing, sports integration, competition versus charity, and masculinity. Sources include readings, film, television, and biographical writings that address sport, body and disability generally, and Special Olympics specifically. P/NP or letter grading.

M162. Sociology of Gender. (5) (Same as Sociology M162.) Lecture, three hours. Required prerequisite: course 10 or Sociology 1. Examination of processes by which gender is socially con-
tucted. Topics include distinction between biological sex and gender, causes and conse-
quences of gender inequality, and recent changes in gender relations in modern Indian society. P/NP or letter grading.

M163. Gender and Work. (4) (Same as Sociology M163.) Lecture, three hours. Required: course 10 or Sociology 1. Exploration of relationship of gender to work, concentrating on the U.S. experience but also including some comparative material. Particular em-
phasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

M164. Politics of Reproduction. (4) (Same as Soci-
ciology M164.) Lecture, four hours; discussion, one hour. Gender and life cycle. Topics include social construction of gender and population, reproductive issues, politicization of motherhood, paternity, and mothering, monogamy, and new reproductive technologies. Letter grading.

M164A. Women, Violence, Globalization: India, 
Philippines, Singapore, Vietnam. (4) (Same as Asian American Studies M164.) Lecture, four hours. Study of various theories of violence against women and of themselves in but of light of larger systems of op-
pression, with focus on Filipino, Vietnamese, Singa-
porean, and South Asian cultures. Letter grading.

M165. Psychology of Gender. (4) (Same as Psy-
chology M165.) Lecture, three hours. Historical and critical perspectives of psychological literature relevant to understanding con-
temporary sexual differences. Topics include sex-role de-
development and role conflict, and psychological and personality differences between men and women, sex differ-
ences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

M167. Contested Sexualities. (4) (Same as Lesbian, 
Gay, Bisexual, Transgender, and Queer Studies M167.) Lecture, three hours; discussion, one hour. Sociolog-
ical perspectives on the construction of gender roles, and resistance as lesbian, gay, bisexual, and transgendered people. Variable topics include identity and community; age, class, gender, and racial diversity; and analysis of con-
temporary issues affecting contested sexualities. Letter grading.

168. Feminist Economics in Globalizing World. (4) 
Lecture, four hours. Preparation: satisfaction of Letters and Social Science requirement. Course requisite: course 10. Designed for juniors/seniors. Overview of field of feminist economics, with emphasis on development experiments in globalizing world economy. Overview of gender inequalities such as gender division of labor in paid and unpaid work, patterns of employment and unemployment, and wage gaps between men and women in different world economy regions; feminist critiques of economics and of theoretical debates as within gender and development field on topics such as structural adjustment, Feminization of labor force, and poverty; examination of efforts and proposals by governments, NGOs, international organizations, and civil society organizations to make economic poli-
cies and structures gender-equitable. P/NP or letter grading.

CM170. Alternate Traditions: In Search of Female 
Voices in Contemporary Literature. (5) (Same as Comparati ve Literature CM170.) Seminar, three hours. Designed for upper-division literature majors. Investi-
gation of narrative texts by contemporary French, German, English, Spanish American, Latin American, and Asian women writers from cross-cultural perspective. Common themes, problems, and tech-
iques. Concurrently scheduled with course CM270. P/NP or letter grading.

M170C. History of Women in China, AD 1000 to Present. (4) (Same as History M170C) Lecture, three hours; discussion, one hour (when scheduled). De-
gned for juniors/seniors. Topics include women and family, women's contributions to description of gender and social interaction. P/NP or letter grading.

171A. Women, Gender, and Law: Jurisprudence 
of Sex and Gender. (4) (Same as Law M171A) Lecture, four hours. Enforced requisite: course 10. Recommended: course 102 or 103 or 104. Exploration of models of equality de-
scribed and/or advocated by legal theorists primarily in U.S., women's rights, equality of outcome, equality of respect, etc.—using specific problems of women (e.g., sexual harassment, pregnancy leave policy, access to safe and effective reproductive con-
trol technologies) as comparative and cri-

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. Impact of social, psychological, polit-
ical, and economic forces which impact on interper-
sonal relationships of Afro-American women as mem-
bers of large society and as members of the biolog-
ical and ethnic group. P/NP or letter grading.

M173B. Women in 20th-Century Japan. (4) (Same as History M173B.) Lecture, three hours; discussion, one hour. 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 the 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.

M174. Sociology of Family. (4) (Same as Sociology M174.) Lecture, three hours; discussion, one hour. Theory and research dealing with modern family, its structure, and function, including historical changes, variant family patterns, family as institution, and influ-
ence of contemporary society on family. P/NP or letter grading.

M175. Women and Cities, (4) (Same as Urban Plan-
ing M175.) Lecture, three hours. Limited to juniors/ seniors. Examination of role of women in cities and towns: (1) how cities have affected women's op-
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.

CM178L. Critical Media Literacy and Politics of Gen-
der: Women and the Production of Knowledge. (4) 
CM178M. Seminar, three hours. Corequisite: course 
CM178L. Use of range of pedagogical approaches to theory and practice of critical media literacy that nec-
cessarily involves understanding 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 sched-
uled with course CM278L. Letter grading.

M180B. Historical Perspectives on Gender and Sci-
cence. (4) (Same as History M180B.) Lecture, three hours; discussion, one hour (when scheduled). De-
gined for juniors/seniors. Historical cases illustrating how gender enters practice and concepts of science. Topics include gendered conceptions of nature, per-
sona of man of science, role of women in scientific revol-
ution, scientific inversions of women and fem-
inine. P/NP or letter grading.

185. Special Topics in Gender Studies. (4) Lecture, three hours. Preparation: one prior gender studies courses designed for 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 
Studie M185A) Lecture, three hours. Variable topics in American Indian and gender studies. May be re-
peated for credit with topic and/or instructor change. P/NP or letter grading.

M186. Voices of Women in Nordic Literature. (4) 
(Literature CM186.) Seminar, three hours. Requisite: Scandinavian CM144A. Seminar, three hours. Requisite: Scandinavian 105B or 106B or 107B. Knowledge of Scandinavian languages not required for freshmen. Reading corpus includes writings by Scandinavian women writers analyzed in historical, theoretical, sociological, critical, and comparative contexts. P/NP or letter grading.

M186A. Women and Gender, Prehistory to 1792. (4) 
(Same as History M186A) Lecture, three hours; dis-
cussion, one hour (when scheduled). Designed for ju-
niors/seniors. Examination 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, appear-
ance of gender, women's contribution to Neolithic rev-
olution, significance of Goddess artifacts, creation myths, and women and sexuality in different religions. Consideration of effects of European conquest on Me-
soamerican women, women's power in monarchies, gender dimensions of Atlantic slavery, and first mani-
festations of feminist consciousness in second half. Objects or texts created by women examined or read through the lens of P/NP or letter grading.

M186B. Global Feminism, 1850 to Present. (4) 
(Same as History M186B.) Lecture, three hours; dis-
cussion, one hour (when scheduled). Designed for ju-
niors/seniors. Introduction to movements for women's rights (national, political, cultural, and/ or repro-
ductive) 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 are responsible for independent research directed by instructor. tutorials 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. (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.


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. Individual honors contract required. Honors content noted on transcript. Letter grading.

M191D. Topics in Queer Literatures and Cultures. (5) Same as English M191D and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M191D.) Seminar, three or four hours. Enforced requisite: English Composition 3. Consult with faculty sponsor, 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.

M191E. Topics in Gender and Sexuality. (5) Same as English M191E and Gender Studies M191E.) Seminar, three or four hours. Enforced requisite: English Composition 3. Consult with faculty sponsor, 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.

195. Community or Corporate Internships in Gender Studies. (10 units) Tutorial, eight hours. Requisites: course 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 in community agency, organization, or business approved by program. Content of student work must apply gender analysis or be focused on some aspect of gender studies. Students meet on regular basis with instructor for a few hours per week. On-going reports on their experience on-site, and submit final report. Must be taken for 4 letter-graded units to be applied toward Gender Studies major or minor. May be repeated for maximum of 8 units with supervising faculty member required. P/NP or letter grading.

M195CE. Comparative Approaches to Community and Corporate Internships. (4) Same as African American Studies M195CE, American Indian Studies M195CE, Asian American Studies M195CE, and Chicana and Chicano Studies M195CE.) Tutorial, one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Comparative study of race, gender, and identity in communities. Appropriate for workplace dynamics. 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. 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: course 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, interdisciplinary field, or emerging areas of inquiry. Assigned reading and tangible 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: course 102 or 103 or 104. Limited to junior/senior Gender Studies majors and minors. Supervised individual research or investigation under faculty guidance. May be repeated once for credit. Individual contract required. Letter grading.

Graduate Courses

201. Introduction to Interdisciplinary Methods in Gender Studies. (4) Seminar, three hours. Presentations by faculty members of approaches to interdisciplinary research. Demystification of methods, particularly of interdisciplinary sort, to introduce students to wide range of faculty research and to incorporate questions of ethics, touched upon in an exploration of 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, eco-feminism, critical race studies, queer studies, indigenous studies, and postcolonial and transnational studies) that have elicited feminist critiques and contributed to development in feminist thought. Learning to analyze critical/ theoretical works in field and survey of key methodologies, examination of key concepts and debates in gender studies, and identification of debates that have generated key concepts 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 intersections of feminist studies, masculinity studies, and queer studies. Debates and interventions concern interdisciplinary, intersectional feminist methods and changing boundaries of field over time. Exploration of critical tools to utilize and interrogate existing methodologies. Issues include examination of gender, race, and sexuality as categories that have been shaped by processes of knowledge-production within and across disciplinary boundaries, cultures, and paradigms, and importance of intersectional, standpoint, and queer theories as critical research tools and as responses to issues of power, domination, oppression, and other loci of identities 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 gender studies graduate students. To be taken after all coursework. Requisites: courses 198A-198B-199C. Topics may be 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 preparation for fall grant-writing season, exploration of dissertation development process, development of skills to insist 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. Introductions to topical approaches to gender studies. Limited to junior/senior Gender Studies majors and minors. Supervised individual research or investigation under faculty sponsor and graduate student coordinator. Individual contract required. Letter grading or S/U or letter grading.

210. Topics in Women and Public Policy. (4) Lecture, four hours. Designed for graduate gender studies students. Introduction to background, decision-making processes, and current debates over public policy directly affecting women in one or more major spheres of public life (e.g., work, family, political system, health care, legal regulation). Topics may focus on public health, political science, medicine, workplace studies, and social welfare. May be repeated for credit with topic or 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, queer and trans-gender theory, interdisciplinary research on minority sexualities, and social construction/construction of gender. May be repeated for credit with topic or instructor change. Letter grading.

220. Cultural Studies in Gender, Race, and Sexualities. (4) Seminar, three hours. Designed for graduate students. In-depth study of representations of gender and sexuality in literature and performance culture, with special attention to race. Topics include flow of artistic cultural production across national borders, theorizing femineque as diasporic or multicultural formation. Letter grading.


M238. Feminist Theory. (4) Same as Sociology M238.) Seminar, three hours. Designed for graduate students. Analysis of current American feminist theory in light of works by and about women who identify as 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 CM243.) Lecture, four hours. Designed for graduate students. Examinations of role of healers, historical and within contemporary culture-specific contexts. Exploration of psy
M261. Gender and Music in Cross-Cultural Perspective. (4) (Same as Sociology M262.) 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.

M255A. Seminar: Current Problems in Comparative Literature. (4) (Same as Education M253A.) Seminar, four hours. Examination of some of most influential critical theorists, including Marx, Nietzsche, Freud, Marcuse, Foucault, Fanon, and de 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 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.

M259A-M259B. History of Women. (4–4) (Same as History M259A-M259B.) Seminar, three hours. Course M259A is required to M259B. History of women’s social and political issues seen in U.S. and comparative context. In Progress (M259A) and letter (M259B) grading.

M251. Gender and Music in Cross-Cultural Perspective. (4) (Same as Ethnomusicology M251.) Seminar, three hours. Designed to foster in-depth understanding of study of music as culture. Topics range from ethnomusicologists of gender and sexuality, (de)codification of messages of resistance, and gender representation to gendered politics via musical production. S/U or letter grading.

M253A. Seminar in Comparative Literature. (4) (Same as Education M253A.) Seminar, four hours. Examination of two courses from 201, 202, 203, 210. Limited to program PhD students. Interactive seminar with focus on discip- linary and interdisciplinary issues, feminist scholarship, research presentation, and professional development. May be repeated for credit. S/U grading.

M265. Gender Systems. (4) (Formerly numbered M263P.) (Same as Anthropology M243.) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationship between systems of gender, economy, ideational systems, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter 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.


M278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM278.) Seminar, three hours. Corequisite: course CM278. 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 critical media literacy projects. Concurrently scheduled with course CM178. Letter grading.

M278L. Critical Media 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. Seminar in Women’s Studies. (4) Lecture/discussion, four hours. Designed for graduate students. Selected topics or special problems. In-depth study of aspects of feminist theory or research methods or gender analysis within interdisciplinary studies in social sciences, humanities, health sciences, arts, or professional programs. May be repeated for credit with topic or instructor change. 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 discip- linary and interdisciplinary issues, feminist scholarship, research presentation, 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 reciprocity and dialogue 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/gender studies, ar- ranged individually by student with instructor. May be repeated for credit. S/U or letter grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, eight hours. Limited to graduate gender studies students. Reading and preparation for written MA comprehensive examination or PhD qualifying field ex- aminations. May be repeated for a maximum of 12 units. S/U grading.


Scope and Objectives

Geography is the study of the natural world and how humans have shaped it. It examines the physical Earth and life on it, looking at the world’s di- verse 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 de- termining 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 im- migrants 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 distribu- tion of human populations. Research is also con- ducted in libraries and archives, probing document- ary 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 per- spectives and technical skills. UCLA geography stu- dents have gone on to become university scholars,
school teachers, members of governmental and nongovernmental 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 graduate minors in Geography, Geography/Environmental Studies, and Geospatial Information Systems and Technologies.

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 advisor 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
- 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
- Proficiency in written arguments drawing on appropriate sources and methods in the geographical literature

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, one and on projects around the world. Graduate alumni of the department have teaching positions at many leading universities in the U.S. and abroad.

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 a cumulative grade-point average (GPA) of 3.5 or better in all upper-division geography courses and a 3.0 overall GPA. They must enroll in Geography 198A and 198B in two consecutive terms and earn grades of A– or better. They may elect to work with one or two faculty sponsors. Students are awarded highest honors, honors, or no honors based on an evaluation of the thesis by the faculty sponsor(s), and meeting GPA requirements. Contact the department advising office for more information.

Geography Minor
The Geography minor is designed for students who wish to deepen and broaden their major program of study with a distinctive yet flexible program of courses encompassing the relationship between environment and society. The minor allows students to develop a coherent strategy for understanding and explaining the manner in which people and the Earth interact. Students have the opportunity to explore the origins, development, morphology, and processes of landscapes inherited from nature, as well as those institutions and cul-

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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.

Required Lower-Division Courses (10 units): Geography 1, 2, 3, 4, 6. It is recommended that students take these courses before attempting upper-division courses.

Required Upper-Division Courses (20 units): Any five upper-division geography courses, with a few exceptions. Contact the advising office for more information.

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 toward major requirements or another minor, and requirements must be in addition to units applied to 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.

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 and 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 of 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 activity. Examination, using case studies, of real environmental problems that confront us today. P/NP or letter grading.


7. Introduction to Geographical Information Systems and Technologies Minor. (5) Lecture, three hours; laboratory, two hours. Designed for freshmen/sophomores. Introduction to fundamental 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, spatial 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.

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.

88A-88Z. Lower-Division Seminars: Geography. (4 each) Discussion, three hours; reading period, one hour. Seminars designed to explore various themes and issues pertinent to environment and people. Seminars advertised in department during previous 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.

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-
dents 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 Geomorphology. (4) Lecture, three hours; reading period, one hour. Requisite: course 1. Study of processes that shape world's landforms, with emphasis on weathering, mass movement and fluvial erosion, transport, deposition: energy and material transfers; space and time considerations. P/NP or letter grading.

102. Tropical Climatology. (4) Lecture, three hours. In-depth exploration of development of tropical climate, with special reference to hurricanes, ENSO, and monsoons. Examination of human interaction with tropical climate processes 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.

104. Climatology. (4) Lecture, three hours; reading period, one hour. Enforced requisite: course 1 for juniors/seniors. Examination of many relations between climate and world of man. Application of basic energy budget concepts to micromelations of relevance to ecosystems of agriculture, animals, man, and urban places. P/NP or letter grading.


110. Human Impact on Biophysical Environment. (4) (Same as Environment M110.) Lecture, three hours; discussion, one hour. Enforced requisite: one course from course 1, 2, Environment 10, Life Sciences 7B. Designed for juniors/seniors. Systematic study of processes of and hazards posed by deforestation, desertification, 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.


110. Human Impact on Biophysical Environment. (4) (Same as Environment M110.) 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.

110. Population and Natural Resources. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of debate about environmental change and ability of planet to maintain growing population. Introduction and evaluation of basic demographic processes in context of food production, energy use, and environmental degradation. Discussion of major debates about use of resources in context of increasing population in developing countries and decreasing population in Western countries. P/NP or letter grading.

111. Forest Ecosystems. (4) Lecture, three hours; field trips. Requisite: course 2 or Life Sciences 7B. Designed for juniors/seniors. Evaluation of ecological principles as they apply to forests. Emphasis on contrasts of physical environment, biotic interactions, succession, disturbance, and ecosystem or forest-level environmental change. P/NP or letter grading.


113. Humankind and the Environment. (4) Lecture, three hours; Corequisite: 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.


115. Environmentalism: Past, Present, and Future. (4) (Same as Environment M132 and Urban Planning M169.) Lecture, three hours; discussion, one hour. Exploration of major environmental ideas, movements or countertemperatures they spawned, and new and changing nature of modern environmentalism. Introduction to early ideas of environment. How sciences have shaped 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 challenges as they relate to broader set of questions about nature of development, sustainability, and equity in environmental debate. Exploration of role of science in shaping global climate change, rise of pandemics, deforestation, and environmental justice impacts of war. Letter grading.

116. Biogeography of Plant and Animal Invasions. (4) Lecture, three hours; reading period, one hour. 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 or human activity. P/NP or letter grading.

117. Ecosystem Ecology. (4) (Same as Ecology and Evolutionary Biology M131.) Lecture, three hours; field trips. Corequisite: course 1 or Life Sciences 2 or 7C. Designed for juniors/seniors. Development of principles of ecosystem ecology. 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.

118. Medical Geography. (4) Lecture, three hours; reading period, one hour. Requisite: course 5. Examination of patterns of population/place/disease interactions and some effects of change and development on disease etiology and problems of healthcare. P/NP or letter grading.

119. Biophysical and Social Transformations in Northern and Southern Hemispheres. Enforced requisite: course 5. Substantial transformation of world’s northern high latitudes due to climate change, natural resource development, and key demographic trends in 21st century. Climate models project rising mean air temperatures and precipitation, and less sea ice cover in Arctic Ocean, consistent with field observations of rising river flows, shrinking glaciers, and thawing permafrost. Northern societies react to these phenomena shaped by new legal frameworks, like aboriginal land-claims agreements in North America, and resource economics, like oil and gas industry in Western countries (including U.S.) face array of challenges and opportunities ranging from species extinctions to increased viability of shipping lanes. Major cities like Vancouver and Helsinki are becoming highly desired places to live, emigrate, and work. Blending of principles of human and biophysical geography to gain new understanding of northern quarter of planet placed within broader global context. Letter grading.


125. Health and Global Environment. (4) Lecture, three hours; reading period, one hour. Impact of environment and lifestyle on individual health examined from geographical perspective, with examples from both developing and developed countries. P/NP or letter grading.


M127. Soils and Environment. (4) (Same as Ecology and Evolutionary Biology M127 and Environment M127J.) 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 management of soils related to policies of growth and distribution. P/NP or letter grading.

M127L. Soils and Environment: Field. (1) (Same as Ecology and Evolutionary Biology M127L and Environment M127LJ.) Laboratory, one hour; field excursions. Corequisite: course M127. 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.


M129. Geographical Discovery and Exploration. (4) Lecture, three hours; reading period, two hours. Preparation: one course each from natural and human systems cores, three environmental studies cluster courses. Limited to seniors. Qualitative/quantitative analysis of data and use of the latest technologies to solve environmental problems. Case studies from Africa, Latin America, Asia, and U.S. P/NP or letter grading.

129. Seminar: Environmental Studies. (4) Seminar, three hours; reading period, two hours. Preparation: one course each from natural and human systems cores, three environmental studies cluster courses. Limited to seniors. Qualitative/quantitative analysis of data and use of the latest technologies to solve environmental problems. Case studies from Africa, Latin America, Asia, and U.S. P/NP or letter grading.
132. Food and Environment. (4) Lecture, three hours. Designed for juniors/seniors. Thematic orientation to food systems and their role in environmental and cultural transformations. P/NP or letter grading.

133. Cultural Geography of Modern World. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors and graduate students. Historical and spatial approaches 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.

134. Border Studies: Globalization, Nation, Identity. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors and graduate students. Historical and spatial approaches 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.


M137. Historical Geography of American Environment. (4) (Same as Environment M137.) Lecture, three hours. Designed for juniors/seniors. Study of systematic changes of natural environment in U.S. during historical period, with emphasis on interplay between and among natural factors of climate, soils, vegetation, and landforms, and human factors of settlement, economic activity, technology, and cultural arts. P/NP or letter grading.

138. Place, Identity, and Networked World. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Overview of contemporary ecological and development issues in sub-Saharan Africa. P/NP or letter grading.

139. Japan in World: Culture, Place, and Global Connections. (4) Lecture, three hours; reading period, one hour. Focus on questions of culture and place in Japan. Exploration of ways that these questions—and Japan itself—have been shaped by historical and contemporary relations to other parts of world. P/NP or letter grading.

140. Political Geography. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Spatial political studies, spatial constitution of political power, control over space as central component to political struggles. Studies at local, national, state, and global scales. P/NP or letter grading.

141. Uneven Development Geographies: Prosperity and Impoverishment in Third World. (4) 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 practices, by global processes stretching back centuries, and transformative possibilities of Third World agency. World societies seek to transform Third World into their own image. Study of theories and practices of colonial domination, development, and globalization. Study of those theories and Third World alternatives to examine how they have shaped livelihood possibilities. Social differences between the core (northern Europe, North America) and the periphery (Third World majority and minorities that prosper massively, as well as geographical differences (culturally, environmentally, and socially) across Third World. Examination of emergent Exchange and World Agency, and recent developments in the Global South. The relationship of Third World and Global North. The role of NGOs in the Global South. Environmental impact on global North.

142. Population Geography. (4) Lecture, three hours; reading period, one hour. Designed 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. P/NP or letter grading.

143. Population in Interacting World. (4) Lecture, three hours. Provides multidisciplinary understanding of and appreciation for human population phenomena and problems 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 level and local scale, including both demographic change and persistence of high levels of fertility in parts of developing world, high-low fertility and population aging in highly industrialized countries, increasing levels of international migration, and creation of mega-cities in less developed world, (2) policies adopted to address these problems, such as family planning programs or international migration, and (3) gender dimension of contemporary population problems and policies. P/NP or letter grading.

144. Ethnicity in American Cities. (4) Lecture, three hours; reading period, two hours. Limited to juniors/seniors. Designed to encourage and facilitate critical thinking about geographical aspects of ethnicity in contemporary cities. Use of comparative perspective to explain changing distribution, social, economic, and political behavior, and adjustment problems ethnic groups face in contemporary American cities. 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 without discussion sessions or 5-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 extent human trafficking has been conceptualized as global problem that warrants international response. Examination of recent activist, governmental, and media responses, and reflection on what is and is not accomplished by them. Questions of labor, migration, sexuality, rights, ethics, embodiment, representation, and governance pertain to human trafficking. What people mean when they speak of human trafficking as slavery. Meanings of slavery and freedom in world history, and contextualization of 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.

M146. Ethnic Studies. (4) (Same as Gender Studies M146.) Lecture, three hours; discussion, one hour. Critical engagement of gender as concept of geographic inquiry. 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.

147. Social Geography. (4) Lecture, three hours; discussion, one hour. Study of spatial of social differences such as race, class, gender, age, sexuality, location. Critical explorations of identity, social categories, and spatial structures. Importance of space and place in social life. P/NP or letter grading.


M149. Transportation Geography. (4) (Same as Urban Planning M150.) Lecture, three hours. Requisites: one course from 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.


152. Cities of Europe. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Urban Geography of Europe. Study of cities and internal spatial structure, functions, and geographic problems of contemporary European cities. Particular attention to historical development and landscapes of capital cities such as Rome, Paris, and Berlin. P/NP or letter grading.

M153. Past People and Their Lessons for Our Own Future. (5) (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 examination of how other modern people are coping or failing to cope with similar issues. Letter grading.


156. Metropolitan Los Angeles. (4) 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.

159. Korean Urban Experience. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors with previous coursework in geography or East Asian studies. Study of cities by geographers entails analysis of evolution, functions, spatial patterns, and other geographical problems of urban societies throughout history. Examination of Korean urban experience as found in Seoul, along with other cities in both Korea and overseas where Korean diaspora resides. Korean experience to be juxtaposed against responses by other cities of world to similar challenges. Geographies of feeling and associated processes of urban redevelopment whereby built environment is continuously being reproduced and transformed. Current urban debates, as well as topics showing interplay between competing visions of city. P/NP or letter grading.

159A-159E. Problems in Geography. (4 each) Discussion, three hours; reading period, one hour. Preparatory: completion of three courses. Core 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.

159A. Urban and Regional Development Studies. (3) Spatial and Social Processes in Cities; 159C. Culture and Environment in Modern World; 159D. Physical Geography; 159E. Biogeography.

163. Field Analysis in Biogeography. (4) Fieldwork, eight hours. Requisites: courses 2, 5, 108, 112. Examination of field procedures and theoretical concepts used in observation, measurement, analysis, and interpretation of phenomena pertinent to biogeography and interrelated human influences. P/NP or letter grading.

166. Environmental Modeling. (4) Lecture, one hour; laboratory, 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.


169. Introduction to Remote Sensing. (4) Lecture, two hours; laboratory, one hour. Enforced requisite: course 7. Introduction to fast-growing field of environmental monitoring from space. Application of Landsat, radar, Global Positioning System (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.


173. Geographic Information Systems Programming and Development. (4) Lecture, two hours; laboratory, two hours. Enforced requisite: course 168. 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.

174. Advanced Remote Sensing. (5) Lecture, three hours; laboratory, two hours. Requisites: courses 169. Remote sensing in visible and infrared wavelength regions to understand basic concepts of radiation propagation and interaction with matter, how digital remote sensing images are acquired, and constraints on available data and data analysis. P/NP or letter grading.

177. Field Methods in Physical Geography. (5) Lecture, three hours; laboratory, three hours. Examination of field procedures used in observation: measurement, analysis, and interpretation of physical phenomena pertinent to natural and built environment. Topics vary from year to year and may include soils, geomorphology, biogeography, and biogeography. Letter grading. May be repeated for credit with topic change. P/NP or letter grading.


181. Mexico, Central America, Caribbean. (4) 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 Middle America and contemporary economic and cultural geography of Mexico and countries of Central America and West Indies. P/NP or letter grading.

182A. Spanish South America. (4) 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 South America and contemporary economic and cultural geography of individual Spanish-speaking countries. P/NP or letter grading.

182B. Brazil. (4) 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 Portuguese South America and contemporary economic and cultural geography of Brazil. P/NP or letter grading.

183. The Mediterranean World. (4) 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 Mediterranean region, with emphasis on 1500s to present. Introduction to great disputes in history and ecology centered on this region and character of two shores of Mediterranean basin. P/NP or letter grading.

184. California. (4) 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 studies of various regions. P/NP or letter grading.

185. Southeast Asia. (4) 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, and cultural environment and its dynamic transformation. P/NP or letter grading.

186. Contemporary China. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Systematic geographic analysis of elements of landscape, resources, and socio-economic characteristics of People's Republic of China. Dynamics that have led to 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.

Special Studies

188A. 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 period should begin prior to instruction and 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 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 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 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: Geog- raphy. (4) Seminar, three hours. Research seminars on 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 of research group, discussion of research methods and current literature in field 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.

C194A. Research Group Seminars: Issues in Bio- physical Geography. (1) Seminar, one hour. Designed for undergraduate students who are part of research group. Biweekly seminar to discuss current research in biophysical geography. Topics vary from year to year. May be repeated for credit. Concurrently scheduled with course C299B. P/NP grading.

195. Community or Corporate Internships in Geog- raphy. (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 of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.

198A-198B. Honors Research in Geography I, II. (4– 5) Tutorial, to be arranged. Preparation: 3.25 grade-point average overall, at least five upper-division ge- ography courses with 3.5 grade-point average. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under faculty supervision. Individual contract required. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

199. Special Studies. (2 to 6) Tutorial, to be arranged. Limited to juniors with B average in major or seniors. May be repeated for maximum of 16 units. P/NP or letter grading.

Graduate Courses

Core

200A. History and Structure of Modern Geography. (4) (Formerly numbered 297A.) Lecture, three hours; reading period, one hour. Evolution of field of geography in 19th and 20th centuries, with emphasis on professionalization of geography and its emergence as modern academic discipline. S/U or letter grading.

200B. Seminar: Geographical Inquiry. (1) (Formerly numbered 298A.) Seminar, one hour. Discussion of geographical research within context of philosophical and methodological nature of scientific inquiry. S/U grading.

Methods

201. Research Design in Geography. (4) (Formerly numbered 299D.) 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. Quantitative 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 methods 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 considerations of ethical and practical issues of conducting qualitative research. S/U or letter grading.

204. Statistical Methods for Geographic Research. (4) [Formerly numbered 298A.] Lecture, three hours; laboratory, two hours. Requirements: 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. Designated 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 neuroimaging, geography, seismology, demography, and environmental sciences. S/U or letter grading.

M206. Introduction to Biophysical Modeling of Land Surface Processes and Land/Airmosphere 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 ideal canopy model, radiation, heat, and CO2 fluxes transfer, and satellite data application. Laboratory sessions included. S/U or letter grading.

Geospatial Information Systems

208. Geographic Data Visualization and Analysis. (4) [Formerly numbered 299B.] Lecture, three hours; laboratory, two hours; discussion, one hour; course 168, Statistics 12. Development of broad base of knowledge and set of skills that foster conduct of high-quality geographic data analysis. S/U or letter grading.

211. Remote Sensing of Environment. (4) [Formerly numbered 299E] Laboratory, three hours; independent study, two hours. Requirements: course 167. Study of aerial photographs and other remote sensing images as tools for geographic research. Particular attention to analysis of landscapes and interpretation of interrelationships of individual features in their physical and cultural complex. S/U or letter grading.

Remote Sensing

212. Physical, Mathematical, and Computational Basis of Remote Sensing. (5) [Formerly numbered 299F] Lecture, three hours; laboratory, two hours. Requirements: course 250. Designed for graduate students. Analysis of fundamental physics, mathematics, and computer science that underlie modern remote sensing and application of this knowledge to modern geographic problems. May be repeated for credit with topic change. S/U or letter grading.

214. Advanced Projects in Geographic Information Systems (GIS)/Remote Sensing. (4) [Formerly numbered 298] Lecture, one hour; laboratory, three hours. Recommended prerequisite: course 169 or 170 or Earth, Planetary, and Space Sciences 150. Familiarity with GIS or image processing package expected. Individualized research projects conducted on UNIX platforms within structured course environment. All aspects of modest but original project, including data acquisition, ingestion, 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 280.] Laboratory, five hours; fieldwork, five hours. Examination of advanced field and laboratory procedures used in contemporary biophysical geography research. May be repeated for credit with instructor change. S/U or letter grading.

216. Advanced Field Analysis: Biogeography. (8) [Formerly numbered 282.] Fieldwork, 10 hours. Observation, measurement, and analysis of biogeographic phenomena, including identification and evaluation of biotic populations and their modifications resulting from impact of human activity. S/U or letter grading.

218. Advanced Medical Geography. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Requirements: course 118. In-depth study of selected topics in medical geography and intense review of recent research. S/U or letter grading.

Human Geography

M224. 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 political, ethical 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.

M229A. Development Theory. (4) [Same as Urban Planning M234A.] 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 developing countries. Emphasis on linkages between policy and rural and urban impacts. Gives students important background for courses M229B, 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 M225. Science and politics of modern environmentalism and planning in light of current theoretical debates. Emphasis on threats to ecological integrity in the physical environment; 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. Requirements: course 229A. 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 groups, and environmental and social impact of its development. Letter grading.

M230A. Theories of Regional Economic Development I. (4) [Formerly numbered 236A.] (Same as Public Policy M240 and Urban Planning M236A.) Lecture, three hours; reading period, one hour. Introduction 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 236B.] (Same as Urban Planning M236B.) Lecture, three hours. Requirements: course 230A. Application of theories of regional economic development, location, and trade learned in course 230A 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 reevaluating 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 resistance 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. Requirements: course 250. Related research projects assigned. 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. Requirements: course 250. Related research projects assigned. May be repeated for credit. S/U or letter grading.

240. Seminar: Geographic Thought. (4) [Formerly numbered 295.] Seminar, three hours; reading period, two hours. Designed for graduate students. Discussion and study of topics significant to development of modern philosophy of geography. S/U or letter grading.

Human Geography Advanced

245. Advanced Political Geography: Geopolitics. (4) [Formerly numbered 240.] Lecture, two hours; discussion, one hour; reading period, 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 235.] Lecture, three hours; discussion, one hour; reading period, one hour. Requirements: course 133. Lectures and discussions around specific aspects of development of cultural landscape in 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. Advanced study of 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 to 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; influence of 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 207.) Seminar, three hours. Designed for graduate students. Physical concepts and basic principles of land-surface/atosphere interactions. Exploration of topics in terms of regional and global perspectives 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 contemporaneous development of concepts of evolution, ecology, and environmentalism influenced, and were influenced by, development of modern geography as academic discipline. S/U or letter grading.

265. Environmentalism: 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 ecology and its implications in both urban and rural settings. Exploration of problematic of increasing (international and/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 M272A-M272B-M272C and Earth, Planetary, and Space Sciences M270A-M270B-M270C.) Seminar, two hours. Archaeological, geophysical, micropaleontological, and stratigraphic evidence for climate change throughout paleogeological past. Rheology and dynamics of climatic subsystems: atmosphere and oceans, ice sheets and marine ice, lithosphere and mantle. Climate of other planets. Modelling, simulation, and prediction of modern 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 230. 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. Biophysical and cultural complexes of humid tropics, warming and human 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 human 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. 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, isostasy 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.) Seminar, 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 mainly on cultural/historical geographical perspectives on national period; themes and periods can be adapted to individual interests. S/U or letter grading.

291. Geography of Contemporary China. (4) (Formerly numbered 286.) Seminar, three hours; reading period, two hours. Designed for graduate students. May be repeated for credit. S/U or letter grading.

292. Seminar: Political Geography of Italy. (4) (Formerly numbered M241.) (Same as Italian M241.) 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.

298. Advanced Regional Geography: Selected Regions. (4) (Formerly numbered 292.) Lecture, three hours; discussion, one hour. Preparation: appropriate upper-division regional course. Lecture series devoted to one specific region at discretion of instructor. May be repeated for credit. S/U or letter grading.

Required Colloquia

299A. Research Group Seminars: Issues in Human Geography. (1) (Formerly numbered 296A.) Seminar, one hour. Biweekly seminar to discuss current research in human geography. Topics vary from year to year. May be repeated for credit. S/U grading.

C299S. Research Group Seminars: Issues in Biophysical Geography. (1) (Formerly numbered C299S.) Seminar, one hour. Biweekly seminar to discuss current research in biophysical geography. Topics vary from year to year. May be repeated for credit. S/U grading.

299C. Cultural Geography Methods Workshop. (1) (Formerly numbered 296C.) Seminar, two hours. Biweekly forum for presentation and discussion of new concepts, theories, and methods at juncture of geography, humanities, and environmental study. Principal focus on landscape, but scope of cultural study within geography also embraced. S/U grading.

299D. Political Geography Working Group. (1) (Formerly numbered 296D.) Seminar, two hours. Limited to graduate students. Biweekly forum for analysis of current geopolitics, with emphasis on geographic impacts of recent global events. S/U grading.

299E. Agriculture and Food Studies Colloquium. (1) (Formerly numbered 296E.) Seminar, one hour. Current scholarly debates surrounding topics on agriculture and food. Interdisciplinary discussion, with focus on research that explores connections of production and consumption studies vis-à-vis agriculture and food. Group discussion of recently published work, work-in-progress by participants, and distinguished guest speakers. S/U grading.

Special studies

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 College Geography. (2) Seminar, one hour; laboratory, three hours. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Independent study. May be repeated for credit. S/U grading.


GERMANIC LANGUAGES

College of Letters and Science

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Los Angeles, CA 90095-1539

Germanic Languages
310-825-3955

Dominic R. Thomas, PhD, Chair

Faculty Roster

Professors
María (Maite) T. de Zubiaurre, PhD
Douglas M. Kellner, PhD
Kathleen L. Komar, PhD
John A. McCumber, PhD
Course after successful completion of a more advanced Germanic Languages and German-speaking cultures. No credit is allowed for completing a less advanced course.

Collaborative spirit, and a keen awareness of the importance of upper-division elective course in the department, and German 191C. Each course must be taken for a letter grade.

Preparation for the Major

Required: German 1, 2, 3, 4, 5, 6, or equivalent. Students who have completed one year of college-level German language courses should enroll in course 4. Students who are in doubt as to their level of language proficiency or who are native speakers should consult with the language program supervisor.

Transfer Students

Transfer applicants to the German major with 90 or more units must complete the following introductory courses prior to admission to UCLA. Each course must be taken for a letter grade.

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, 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.

Learning Outcomes

- 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

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 German 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 Preapartheid to Postapartheid 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, Rabie, Small, and Willemsen. 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 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

105A. Elementary Afrikaans. (4) Lecture, four hours; laboratory. Introduction to the 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; 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 Leroux and Brink, as well as works of poets such as Ebyers, Opperman, W.E.G. Louw, Van Wyk Louw, and Breitentbach. 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 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; consult Undergraduate Research Center. May be repeated. P/NP grading.

9. Fiat Lux Freshman Seminars. (1) Seminar, three 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/NP grading.

99. Student Research Program. (1 to 2) Tutorial, four hours 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.

10. Contemporary Dutch Society and Culture. Beyond Rembrandt, Cheese, and Wooden Shoes. (5) Lecture, three hours. Lectures and readings in English. Country known as Holland, or more correctly, The Netherlands, is a nation of great cultural and political importance, having played a 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 foreign policy. Piercing of tourist 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. Culminating paper or project required. May be repeated for credit. Individual contract required; P/NP or letter 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.

German

Lower-Division Courses

1. Elementary German. (4) Lecture, five hours; laboratory, one hour. P/NP or letter grading.

4. Intermediate German. (4) Lecture, four hours; laboratory, one hour. Enforced requisite: course 1G. P/NP or letter grading.

5. Intermediate German. (4) Lecture, five hours; laboratory, one hour. Requisite: course 1 or 4G. P/NP or letter grading.

104A-104B. Accelerated Dutch. (5–5) Lecture, four hours; discussion, one hour. 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; consult Undergraduate Research Center. May be repeated. P/NP grading.

120. Introduction to Dutch Studies. (4) Lecture, three hours. Brief review of Dutch grammar. Reading and discussion of selections from contemporary Dutch literature, contemporary Dutch literary criticism, and modern Dutch linguistics. Emphasis on developing reading skill and on acquiring familiarity with and appreciation of works by Couperus, Herman, Muris, Multhis, and Reve and selected authors of Dutch literature. 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 since mid-1850s to present, including novels by such writers as Multhis, Couperus, Herman, Muris, and Reve and poetry by such groups as symbolist Beweging van Tachtig and post-War Beweging van Vijftig. 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.

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.

120. 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.

50A-50B. Great Works of German Literature in Translation. (4–4) Lecture, four hours. Study and analysis of selected masterworks in English translation, including works from earliest period, such as heroic and courtly epic, to authors such as Grimmtheimer, Lessing, Schiller, and Goethe. P/NP or letter grading.

Dutch

Lower-Division Courses

10. Contemporary Dutch Society and Culture: Beyond Rembrandt, Cheese, and Wooden Shoes. (5) 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 foreign policy. Piercing of tourist 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.

50A. Medieval Period through Classicism. (4) Lecture, four hours. Study and analysis of selected masterworks in English translation, including works from earliest period, such as heroic and courtly epic, to authors such as Grimmtheimer, Lessing, Schiller, and Goethe. 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. 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. Culminating paper or project required. May be repeated for credit. Individual contract required; P/NP or letter grading.
508. Romanticism to Present. (5) Lecture, three hours; discussion, one hour. Study and analysis of selected masterworks in English translation, including authors such as E.T.A. Hoffmann, Heine, Fontane, Rilke, Kafka, Brecht, Thomas Mann, Hesse, Grass, Böll, and Christa Wolf. P/NP or letter grading.

56. Figures Whitman and Weidong: Cosmopolitanisms Within a Global Context. (5) Lecture, three hours; discussion, one hour. Introduction to strains of German philosophy and political thought that focus on cosmopolitanism. Exploration of different historical and philosophical engagements with cosmopolitan projects. P/NP or letter grading.

57. Hollywood and Germany. (5) Lecture/screenings, five hours; discussion, one hour. Examination of images of Germany, particularly in Hollywood, to understand the historical interface between Hollywood and Germany, and contemporary critiques of long-standing relationship between these cultural sites. Discussion of how and why cultural stereotypes are generated and maintained, and why film is a uniquely powerful tool in ideological discourse. P/NP or letter grading.

58. Knights and Ladies, Sex and Power at Medieval Court. (5) Lecture, three hours; discussion, one hour. Lectures through medieval court, one of great achievements of European Middle Ages. P/NP or letter grading.

59. Holocaust in Film and Literature. (5) Lecture, three hours; discussion, one hour. Taught in English. Survey of German film between 1919 and 1945, and stylistic development of film from silent Expressionist films to Nazi propaganda and entertainment films. Film discussions enhanced by interactive media. Letter grading.

60. 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.

61A. Modern Metropolis: Berlin. (5) Lecture, three hours; discussion, one hour. Cultural, architectural, and urban history of one of most vibrant and significant cities in world. Exploration of city over 800 years, using innovative mapping tools to understand how Berlin evolved from fortified mercantile town into global city. P/NP or letter grading.

61B-61C-61D. Modern Metropolis, (5 each) Lecture, three hours; discussion, one hour. Historical exploration of major Central European cities and their cultures. P/NP or letter grading. 61B. Weimar; 61C. Vienna; 61D. Prague.

M70. Origin of Language. (5) (Same as Communication M70 and Indo-European Studies M70.) Lecture, three hours; discussion, one hour. Theoretical and methodological issues surrounding origin of language. Topics include evolutionary theory, evolution of man, how language is organized in brain, and science of language, including physiology of speech, phonetics, and comparative reconstruction. Letter grading.

88. Lower-Division Seminar. (4) Seminar, three hours. Course of variable content limited 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 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities selected from 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 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

102. War, Politics, Art. (5) Lecture, three hours; discussion, one hour. Taught in English. Analysis of relationship 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 before 1919 and the technological and stylistic development of film from silent Expressionist films to Nazi propaganda and entertainment films. Film discussions enhanced by interactive media. Letter grading.

104. Myth, Invention, and History of Heterosexualities. (4) Lecture, two hours; discussion, one hour. Taught in English. Course of variable content limited to topics of current interest and offered whenever staff member is available. P/NP or letter grading.

105. Tristan, Isolde, and History of Heterosexualities. (4) (Same as Gender Studies M119.) Lecture, three hours. Taught in English. Film discussions enhanced by interactive media. Letter grading.

106. 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 transfer to be thematized. P/NP or letter grading.

112. Feminist Issues in German Literature and Culture. (4) Lecture, three hours. Taught in English. 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 transfer to be thematized. P/NP or letter grading.

113-114. Fairy Tales and Fantastic. (5) Lecture, three hours; discussion, one hour. Taught in English. Survey of Nobel Prize-winning German texts with eye for degree to which these authors’ visions reflect Nobel’s ideals of peace and progress of human race. Texts include Webers (Hauptmann), excerpts from Buddenbrooks (Mann), and Siddharta (Hesse). Viewing of films based on Lost Honor of Katharina Blum and Tin Drum. Letter grading.

114. Fairy Tales and Fantastic. (5) Lecture, three hours; discussion, one hour. Taught in English. Study and analysis of fairy tales and fantastic genres in cultural context, including legends, proverbs, and cultural enactments such as carnival. 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 Nietzsche through Habermas, including Heidegger, Gadamer, Jaspers, and Frankfurt School theorists. 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 theorists. 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 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 requisite: 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 relationship between theory and memory. Examination of survivor testimony through primary and secondary memoirs in field, such as Primo Levi’s The Drowned and the Saved and Ruth Kluger’s Still Alive. Through collaboration with Jewish Family Services, 1939 Club, and Los Angeles Museum of Holocaust, students meet and work with Holocaust survivors and undertake collaborative research projects and oral histories. Students also attend and curate series of interactive tours through Museum of Holocaust. Letter grading.

140. Language and Linguistics. (4) Lecture, three hours. Enforced requisite: course 152. Taught in English with German proficiency required. Thorough and methods linguistics, with emphasis on structure of modern standard German, its phonology, morphology, syntax, semantics, and pragmatics. Other topics include diachronic, spatial, and social variation in German (i.e., bet. linguistic, sociolinguistic dimensions). Letter grading.

141. Current Topics in Germanic Linguistics. (4) Lecture, three hours. Enforced requisite: course 152Z. Taught in English with German proficiency required. In-depth investigation of one topic in field of Germanic linguistics, such as phonetics and phonology, morphology and syntax, semantics and pragmatics, and historical variation (i.e., sociolinguistics and dialectology of German), or history of German. May be repeated for credit. Letter grading.

C142. Linguistic Theory and Grammatical Description. (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, considered from theoretical frameworks such as transformational-generative grammatical theory, functional linguistics, discourse grammar, and cognitive linguistics. Discussion of formal linguistic approaches. Concurrently scheduled with course C238. Letter grading.

150. German Play Production Act I. (5) Lecture, five hours. Enforced requisite: course 3. Taught in German. Introduction to four German plays (readings variable) and to different types of drama and drama theory. Reading, discussion, and analysis of plays in detail.
practice in performing roles in class, and writing of contemporary German culture and society. (4) Lecture, three hours. Requisite: course 6. Taught in German. Specialized language course that teaches German business administration, practices, and correspondence, with attention to cultural nuances. Ongoing developments in European and international business through newspaper articles and Internet. P/NP or letter grading.

155. Advanced German Language through Cultural History and Current Affairs. (4) Lecture, three hours. Requisite: course 152. Taught in German. Advanced German language course that juxtaposes cultural history with current affairs to teach complex speaking and writing skills of interpretation, analysis, and criticism. Includes selections from Luther, Heine, Freud, and current authors. Students create their own interactive media presentations. 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, and content, primarily in contemporary cinema. Introduction to contemporary German cinema to expose students to recent films in German and to the cultural and historical contexts. Letter grading.

158. Introduction to Study of Literature. (4) Lecture, three hours. Taught in German. Introduction to most important terms and resources of literary analysis to help students develop and improve skills in close and critical reading of literary texts. Study of basic research techniques, acquire familiarity with basics of literary and cultural analysis, and find pleasure in pursuit of literary and cultural study. Letter grading.

159. 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 contexts. Examination of various cultural spaces, practices, and representations staged in literary and nonliterary 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 cultural issues manifested in social and political 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, reconstructing/
197. Individual Studies in German. (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 reading and tangible evidence of mastery of subject matter required for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in German. (4) Tutorial, three 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**

201C. Theories of Literary Interpretation. (4) Lecture, three hours. Advanced analysis and discussion of various models of literary interpretation and schools of thought such as hermeneutics, psychoanalytic critique, social historical approaches, semiotics, structuralism, and poststructuralism. Topics vary with instructor. 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. Continued practice in reading Middle High German, although most texts 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.


207. Weimar Classicism. (4) Lecture, three hours. Reading and interpretation of major works of German classicism. May include problems in reception of classicism by later authors and cultural theorists. Letter grading.

208. Romanticism. (4) Lecture, three hours. Analysis of selected works and theories of German Romantics such as Friedrich Schlegel, Novalis, and Hoffman, with attention to relationship between Romanticism and other periods. Letter grading.


210A. Naturalism, Symbolism, and Expressionism. (4) Lecture, three hours. Analysis of selected works (poetry, drama, prose) of early modernism from Hauptmann through Kafka. Discussion of sociological spectra and pluralism of styles and forms. Letter grading.

210B. 20th-Century Novel to 1945. (4) Lecture, three hours. Prose works in first half of 20th century as they express war experience, crisis of consciousness, 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 crisis, nationalism and divided Germany, gender expectations, and social-political attitudes. Letter grading.

212. Contemporary Literature and Culture. (4) Lecture, three hours. History of current cultural issues and their relation to literary production and interpretation. Topics may include areas such as feminism, postcolonialism, postmodernism, and contemporary theories of textuality. Letter grading.

213. Topics in Literature and Film. (4) Lecture, three hours. With focus on two different modes of cultural representation, examination of topics in German literature and film and film theory. Study of media theory, feminist film theory, and interrelationships between film, literature, and social history. Letter grading.


231. Gothic. (4) Discussion, three hours. Systematic study of phonology and grammar of Gothic language, with readings in Wulfa’s translation of Bible and introduction to history of Gothic and their place in development of modern Gothic. 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 (50 to 1050). Emphasis is on grammatical interpretation of these documents and identification of dialects used in their composition. S/U or letter grading.


235. Linguistic Theory and Grammatical Description. (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, considered from theoretical frameworks such as sign-oriented linguistics, functional linguistics, discourse grammar, 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. (Seminar) Seminar, three hours. Three current topics in synchronic or diachronic linguistics, such as specific issues in generative grammar, sociolinguistics, and dialectology, or language contact. Letter grading.

252: Seminar: Historical and Comparative Germanic Linguistics. (Seminar) Seminar, three hours. Three current topics in synchronic or diachronic linguistics, such as specific issues in generative grammar, sociolinguistics, and dialectology, or language contact. Letter grading.


300. Seminar: Modern Period. (Seminar) Seminar, three hours. In-depth analysis of one particular issue in pre-1945 German literature and culture. Letter grading.

301. Seminar: Contemporary Literature. (Seminar) Seminar, three hours. In-depth analysis of one particular issue in post-1945 German literature and culture. Letter grading.

323. Seminar: Literary Theory. (Seminar) Seminar, three hours. Special focus on particular theoretical school or interpretive paradigm. Content varies with instructor. Letter grading.

324. Topics in Communicative, Cognitive, and Functional Approaches to Linguistic Analysis. (Formerly number 266.) Seminar, three hours. Taught in English. Examination of work of Hannah Arendt in political theory with emphasis on connection between forms of government and precarious lives of others—Jews, the stateless, pariahs. Evaluation within comparative and transnational context of political action, public sphere, amor mundi, moral judgment, individual or collective responsibility, violence, and literature. 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 with 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. (Seminar) Seminar, one hour; 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. (1 to 4) Tutorial, three hours. To be arranged with faculty member who directs study or research. Required research paper must be submitted with department chair. S/U grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4) Tutorial, three hours. To be arranged with faculty member who directs examination. S/U 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. (Lecture) Lecture, three hours; discussion, one hour. Use of media of Yiddish cinema (classic films and documentaries) as primary focal points to examine ways in which one heritage culture, that of Ashkenazic 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. 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. 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.

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

101A. Elementary Yiddish. (4) Lecture, four hours. Introduction to grammar; instruction in listening, speaking, reading, and writing skills. P/NP or letter grading.


102B. Intermediate Yiddish. (4, 4-D) Lecture, three hours. Requisite: course 102A. Course 102B is required 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 complexity and scope of Yiddish culture and in particular of annihilated Yiddish civilization of 20th century. These films represent most accessible way to hear Yiddish spoken in fluent, natural manner. P/NP or letter grading.


131C. Special Topics in Yiddish Literature. (4, 4-D) 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 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.

197. Individual Studies in Yiddish. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study or more specialized investigation of topics in Yiddish, 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

596. Directed Individual Study or Research in Yiddish. (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.

GERONTOLOGY

Interdisciplinary Minor
Meyer and Renee Luskin School of Public Affairs

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Gerontology
310-825-7388
E-mail contact
Lené F. Levy-Stoms, PhD, MPH, Co-Chair
David B. Reuben, MD, Co-Chair

Faculty Committee

Faculty Committee
Janet C. Frank, DrPH (Community Health Sciences)
Michael R. Irwin, MD (Psychology)
Lené F. Levy-Stoms, 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): (1) Gerontology M108, (2) four courses from Gerontology M104C, M104D, M119O, M119X, M142SL, M150, M165, Psychology I24C, I50, (3) two courses from Gerontology I95, 199.

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, 80C/W) 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.

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

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. 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.
ings, 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 (sponsored research or other scholarly work), three hours per week. Only for upper 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

M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Chicana and Chicano Studies M106B, Gender Studies 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.

M104D. Public Policy and Aging. (4) (Same as Social Welfare M104D.) Lecture, four hours. Examination of theoretical models and concepts of policy process, with application to aging policy. Analysis of decision-making processes that influence aging policy. Description of history of contemporary aging policy. Exploration of current policy issues affecting elderly. P/NP or letter grading.

M104E. Social Aspects of Aging. (4) (Same as Social Welfare M104E.) Lecture, four hours. Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly discussions around key aspect of social gerontology. P/NP or letter grading.

M108. Biomedical, Social, and Policy Frontiers in Human Aging. (5) (Same as Public Affairs M130 and Social Welfare M108.) Lecture, four hours. Limited to juniors/seniors. Course of human aging charted in ways that are based on variation of recent research frontiers. Use of conceptual frameworks to increase relevance of aging to students' lives and enhance their critical thinking—biopsychosocial approach that is based on recognition that aging is inherently interdisciplinary phenomenon, and life course perspective that is distinguished by analytical framework it provides for understanding of human lives and changing social structures, and allows students to understand how events, successes, and losses at one stage of life can have important effects later in life. Focus on they age within one particular sociohistorical context. Letter grading.

M119O. Psychology of Aging. (4) (Same as Psychology M119O.) Lecture, four hours. Requisite: Psychology 115. 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 ways in which positive changes can be maximally utilized and impact of detrimental alterations minimized. P/NP or letter grading.

M119X. Biology and Behavioral Neuroscience of Aging. (4) (Same as Psychology M119X.) Lecture, three hours. Designed for juniors/seniors. Biologic mechanisms of aging process and its terminal phase, death, have been increasingly studied in recent years. Establishment of what is known experimentally about biology and behavioral neuroscience of aging and evaluation of theories developed to account for this knowledge. P/NP or letter grading.

120. Sex and Aging. (4) Lecture, three hours. Sexuality in aging from psychological, psychobiological, physical, and psychosocial perspectives, with emphasis on differences between females and males concerning physical and social changes that occur with aging and how this impacts on emotional well-being and human sexual response. P/NP or letter grading.

M142SL. Intergenerational Communication across Lifespan. (4) (Same as Social Welfare M142SL.) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. What do you say to your parents in conversation? How do you talk to your grandparents? Does your family talk well to one another as a group? How do you communicate well with boss who is 30 years older than you? Individuals of all ages interact with one another, and their interactions have significance throughout their lives. Introduction to psychological, interpersonal, and societal issues related to intergenerational communication across lifespan. Letter grading.

M150. Sociology of Aging. (4) (Same as Sociology M150.) Lecture, three hours; discussion, one hour. Study of sociological processes shaping definition, experience, and response to aging in 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.

M165. Disability Policy and Services in Contemporary America. (4) (Same as Disability Studies M130 and Social Welfare M165.) Lecture, three hours. Limited to juniors/seniors. Growing numbers of people over all ages with disabilities are becoming active and productive lives in American communities. Many others are struggling 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? What demands have been made over time by disability advocates? How has government addressed demands 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.

189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in 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.

195CE. Community or Corporate Internships in Gerontology. (4) Tutorial, one hour; internship (approved community setting), eight hours. Requisites: course M108, or GE Clusters 80A or 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 195CE (or 199) 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.

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 195CE) 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 951487
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. Gere, 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 opportunity 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 Collegium 1, 14, 26, International and Area Studies 1, Molecular, Cell, and Developmental Biology 60, 70, Nursing 50, Statistics 13, World Arts and Cultures 2, 3.

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.
Biological Sciences: Psychology 179B.
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.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjacent 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.

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

100. Global Health and Development. (4) Formerly numbered International Development Studies 140. 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.


Scope and Objectives

The Bachelor of Arts degree in Global Jazz Studies is a capstone major designed to provide students with an interdisciplinary education that draws from various areas of the UCLA Herb Alpert School of Music, as well as from the arts and social sciences. The curriculum is designed around three major areas: (1) performance courses designed to advanced students’ skills individually and playing in small combos and larger ensembles; (2) musicianship and music theory courses in which students master improvisation, basics of music theory, arranging, and composition; and (3) broad understanding of the historical and societal context of the development and advancement of jazz in the United States and globally.

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
- Interrogation 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
Required:
- Ethnomusicology 208 or 20C (5 units), 4 units from 91E and/or 91P, 4 units from 68A through 68O and/or 91A through 91L (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);
- M12A. 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.

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.

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 and illuminating many paths of discovery at UCLA. P/NP grading.
M25. Global Pop, (6) (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, (6) (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 media. 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 to M50B. Survey of development of jazz in American culture. Discussion of different compositional/performance techniques and approaches that distinguished 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 intersected with the development of jazz. P/NP or letter grading. M50A. Late 19th Century through 1940s. M50B. 1940s to Present.

Global Jazz Studies

Global Jazz Studies / 469

71A-71L. Instruction in Jazz Performance, (2 each) (Formerly numbered Ethnomusicology 71AF-71LF) Studio, one hour of individual instruction. Limited to Global Jazz Studies majors. Knowledge of jazz repertoire, concepts, and techniques gained through private study on specific instruments and voice. Students meet weekly with instructor 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. Guitar; 71B. Percussion; 71C. Piano; 71D. Saxophone; 71E. String Bass; 71F. Trombone; 71G. Trumpet; 71L. Voice.
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. Cross-Cultural Perspectives in Jazz, (4) (Formerly numbered Ethnomusicology 121.) Lecture, 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.
M103. Creating Musical Community, (4) (Same as Ethnomusicology M103, Music M103, and Musicology M103.) Seminar, 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 musical notation. Drawing from American music folk game traditions, highlights complex history of this country and way in which entire body is used as resource when instruments are unavailable. 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 worked with Ellington, such 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 M107 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, gender representation, and influences on cinema and popular 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; outside study, eight hours. Limited to Global Jazz Studies majors or consent of instructor. In-depth analysis of jazz styles and repertoire intended for students with music background. Letter grading. 122A. Early Jazz to Swing Era; 122B. Bebop to Avant-garde; 122C. Jazz since Sixties.
125A-125B-125C. Jazz Composition and Arranging, (2–2–2) (Formerly numbered Ethnomusicology 125A-125B-125C.) Lecture, two hours; outside study, four hours. Examination of various aspects of jazz composition. Differentiation between improvisation and notated composition, as well as between composition and arranging, and introduction to basic arranging concepts. Letter grading. 125A. Early Jazz to Swing Era; 125B. Bebop to Avant-garde; 125C. Jazz since Sixties.
127A-127B-127C. Jazz Keyboard Harmony I, II, III, (2–2–2) (Formerly numbered Ethnomusicology 127A-127B-127C.) Laboratory, two hours; outside study, four hours. Course 127A with grade of C or better is
M128. Exploration in Rhythms. (2) (Same as Ethnomusicology M128.) Lecture, two hours; outside study, four hours. Preparation: ability to read melodic or rhythmic notation. Involves exploration and creation 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.

129A-129B-129C. Jazz Theory and Improvisation I, II, III. (2–2–2) (Formerly numbered Ethnomusicology 129A-129B-129C.) Lecture, four hours; outside study, eight hours. Elements of jazz theory and improvisation. Letter grading. 129A. Basic jazz harmonic constructions, as well as melodic, rhythmic, and harmonic concepts, and how to apply those elements to personal efforts in improvisations. Requisite: course 129A with grade of C or better. Medium-level jazz harmonic constructions. 129C. Requisite: course 129B with grade of C or better. Advanced-level jazz harmonic constructions.

M130. Culture of Jazz Aesthetics. (4) (Same as Anthropology M158 and Ethnomusicology M310.) Lecture, three hours. Recommended requisite: Anthropology 3 or 4 or Ethnomusicology 20A or 20B or 20C. Aesthetic and social view of musicians and jazz as art form in 20th century. Listening to and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical and critical knowledge of musicians and ethnomusicologists combined with those interested in jazz as cultural tradition. P/NP or letter grading.

M131. Development of Latin Jazz. (4) (Same as Ethnomusicology M131 and Music M131.) Lecture, four hours; discussion, one hour. Survey of historical and stylistic development of musical style referred to as Latin jazz. P/NP or letter grading.

165. Selected Topics in Composition. (4) (Formerly numbered Ethnomusicology C165.) Lecture, four hours; outside study, eight hours. Preparation: experience and accomplishment in composition. Evaluation of important musical concepts and approaches to enable students to develop greater compositional technical and understanding. Ways composers of jazz, European classical, and other musical genres have successfully approached use of extended compositional forms. Examination of in which world music traditions have interfaced with jazz and other types of music to create new musical languages. Use of concepts, structural paradigms, and inspiration from literature, visual arts, and other sources to develop student compositions. May be repeated once for credit. Letter grading.

171A–171L. Instruction in Advanced Performance. (2 each) (Formerly numbered Ethnomusicology 171AF–171LF) Studio, one 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 studio instructor in fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 12 units. Letter grading. 171A. Guitar; 171B. Percussion; 171C. Piano; 171D. Saxophone; 171E. String Bass; 171F. Trombone; 171G. Trumpet; 171L. Voice.

175. Jazz Combo. (2) (Formerly numbered Ethnomusicology 175.) Activity, two hours; laboratory, four hours. Preparation: audition. Exploration of composition and improvisation more intensively 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, two hours; repetition of point可行, four hours. Preparation: audition. Enrollment by consent of instructor. Larger groups of students play in large ensembles, bands, or orchestras. May be repeated for credit without limit. 176A. Contemporary Jazz Ensemble. (Formerly numbered Ethnomusicology 161T); 176B. Charles Mingus Ensemble. (Formerly numbered Ethnomusicology 161Z); 176D. Latin Jazz Big Band; 176E. Ellingtonia Jazz Orchestra; 176F. World Jazz and Intercultural Improvisation Ensemble; 176G. Afro-Cuban Ensemble.

186A. Capstone Seminar. (3) 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). Letter grading.

186B. Capstone. (1) Seminar, two hours; outside study, seven hours. Limited to senior Global Jazz Studies majors. With approval from faculty advisers, students perform (or have compositions performed in) one-hour recital consistent with global dimensions of major, contributing substantial program notes. Students who have developed alternative capstone projects present work in public event comparable to recital (e.g., lecture-demonstration or lecture-recital). Letter grading.

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 Global Jazz Studies majors. Integration of academic work and hands-on training in outreach program. Participation in theoretical discussions of jazz education and application of these theories in elementary and secondary music 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 8 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. 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.

GLOBAL STUDIES

Interdepartmental Program
College of Letters and Science

10274 Bunche Hall
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Los Angeles, CA 90095-1487

Global Studies
310-825-1587
Program e-mail
Michael F. Thies, PhD, Chair

Faculty Committee

Faculty Committee
John A. Agnew, PhD (Geography, Italian)
Hannah C. Appel, PhD (Anthropology)
Elizabeth M. DeLoughrey, PhD (English, Environment and Sustainability)
Laurie K. Hart, PhD (Anthropology)

David D. Kim, PhD (Germanic Languages)
Purmise Mankekar, PhD (Asian American Studies; Film, Television, and Digital Media; Gender Studies)
Eric Min, PhD (Political Science)
Margaret E. Peters, PhD (Political Science)
Shana S. Potts, PhD (Geography)
Kau Rautala, JD, PhD (Law)
David L. Rigby, PhD (Political Science; Statistics)
Michael F. Thies, PhD (Techno-Studies; French and Francophone Studies; Germanic Languages; Languages)

Yuxiang Yan, PhD (Anthropology)

Scope and Objectives

The Global Studies Interdepartmental Program provides undergraduate students with a rigorous interdisciplinarian education in the processes of globalization and their consequences. Housed in the UCLA International Institute, Global Studies offers a research-oriented undergraduate major leading to a Bachelor of Arts degree, as well as an undergraduate minor. The curriculum features three thematic pillars that capture the principal dimensions of the unprecedented depth and breadth of interconnections among nation-states, ethnic and religious groups, and individuals. Culture and society courses concentrate on the tensions between local ways of life with deep historical, linguistic, ethnic, and religious roots; and today’s pressures for transnational cultures and multiple identities, fueled by the communication of ideas and the movement of people all around the world. Governance and conflict courses focus on challenges to the nation-state from forms of governance above (regional and global forms of governance) and below (autonomy and secessionist movements); and from security threats beyond interstate warfare (ethnic conflict, terrorism, civil wars). Markets and Resources courses address the interactions among global, regional, national, and subnational economic processes over resources and market dynamics; their effects on different societies with respect to economic growth, poverty, inequality, the environment; and the interactions among market forces, political institutions, and public policy.

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 equivalent to level 3 by the end of the term in which they are applying. 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 the UC grade-point average for all preparation courses must be a minimum of 3.25. In addition, students must have earned a grade of B or better in Global Studies 1.

The application period is one 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 Global Studies premajors on acceptance to UCLA. Premajor students must apply for the major at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: Global Studies 1 with a grade of B or better; one methods course selected from Political Science 6, 6R, 30, Statistics 10, 12, or 13; 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 2CW, 1D or 2DW, 4CW or 4DW, Ethnomusicology M25, Gender Studies 10, Geography 3, 6, History 28, World Arts and Cultures 20, or 33, (2) one governance and conflict course selected from History 108, 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 M1A, 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 10B, French 14, 14W, History 8A, 9E, International and Area Studies 31, 33, 50, Italian 42A, 42B, 46, Middle Eastern Studies M50CW, Russian 90A, 90B, 90BW, 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 from each of the following categories:

- Culture and society—Anthropology 146, M148, Asian American Studies M130C, 170, M172A, M172C, Chicana and Chicano Studies 120, 143, CM147, Comparative Literature 100, M148, English 130, 131, 133, 134, Film and Television 106C, 112, French 121, 142, Gender Studies 102, M147C, M162, Geography 133, 138, 139, 141, 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 3.25 or better, and (3) complete Global Studies 198B 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 Chicano Studies 10B, Comparative Literature 1C or 2CW, 1D or 2DW, 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 M1A, or Sociology 51.


- Global Studies 102, 103, 104.
- One methods course selected from Political Science 6, 6R, 30, Statistics 10, 12, or 13.
- Demonstrated proficiency equivalent to level 6 at UCLA in one modern foreign language.
- One culture and society course selected from Anthropology 3, 4, Comparative Literature 1C or 2CW, 1D or 2DW, 4CW or 4DW, Ethnomusicology M25, Gender Studies 10, Geography 3, 6, History 28, World Arts and Cultures 20, or 33.
- One governance and conflict course selected from History 108, 22, Political Science 10, 20, 50, 50R, or Sociology 1.
- One markets and resources course selected from Economics 1, 2, Environment 12, Clusters M1A, or Sociology 51.
Upper-Division Courses

102. Globalization: Markets and Resources. (5) Lecture, three hours; discussion, one hour. Prerequisite: course 1. Examination of how domestic and international politics determine how global economy is governed. Topics include monetary and capital policy, trade, international investment, and migration. Letter grading.

103. Globalization: Governance and Conflict. (5) Formerly numbered 100B.) Lecture, three hours; discussion, one hour. Prerequisite: course 1. Exploration of globalization and its effect on outbreak, management, and resolution of disputes, violence, and conflict. Review of international and regional institutions and their interaction with contemporary issues, which may include terrorism, human rights, climate change, and cybersecurity. Letter grading.

104. Globalization: Culture and Society. (5) Formerly numbered 100B.) Lecture, three hours; discussion, one hour. Prerequisite: course 1. Investigation of circulation of peoples, goods, and media to examine interactions of globalization with local culture and formation of global cultures through practices and processes of globalization. Letter grading.

110A. Globalization in Context. (5) Lecture, six hours. Prerequisite: 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.

110B. Globalization in Context Research Seminar. (5) Seminar, six hours. Prerequisite: course 100B. Corequisite: course 110A. Individual research projects on different aspects of globalization process in locations around world. Offered in summer only. 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.

189A-189B. 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.

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. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


199, Directed Research in Global Studies. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. May be applied toward requirements via petition. May be repeated for credit. Individual contract required. Letter grading.

199A-199B. Directed Individual Research in Global Studies. (2–4) Tutorial, one hour. Limited to senior Global Studies majors. Supervised individual research or investigation under guidance of faculty mentor. Individual contract required. 199A. Prerequisite: course 191. Research, discussion, and planning of senior thesis. In Progress grading (credit to be given only on completion of course 199B). 199B. Prerequisite: course 199A. Final drafting and submission of senior thesis. Cumulating paper of 35 to 50 pages required. Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation/apprenticeship for 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.

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 Professional Student Development

Graduate Course

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. Co-taught by Center for Community Learning. 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

Thomas H. Rice, PhD, Vice Chair

**Faculty Roster**

**Professors**

Susan L. Etter, PhD
Jonathan E. Fielding, MD, PhD, in Residence
Patricia A. Ganz, MD
Lillian Gelberg, MD, MSPH
Beth A. Glenn-Mallouk, PhD
Neil Halon, MD, MPH
David E. Hayes-Bautista, PhD
Ronald D. Hays, PhD
S. Jody Heymann, MD, PhD
Felicia S. Hodge, DrPH
Moira Inkelas, MPH, PhD
Clifford Y. Ko, MD
Gerald F. Kominski, PhD
Mark S. Litwin, MD, MPH
James A. Masinko, PhD
Carol M. Mangione, MD, MS, MPH
Vickie M. Mays, MSPH, PhD
Jeanne Miranda, MD, in Residence
Jack Needleman, PhD (Fred W. and Pamela K. Wasserman Professor of Health Policy Management)

Ninez A. Ponce, MPP, PhD
Nader Pourot, MSPH, PhD, in Residence
Thomas H. Rice, PhD
Linda Rosenstock, MD, MPH
Brennan M. Spiegel, MD, MS, in Residence
Kenneth B. Wells, MD, MPH, in Residence
Frederick J. Zimmerman, PhD

**Professors Emeriti**

Emily K. Abel, PhD
Ellen Alkon, MD, MPH
Ronald M. Andersen, PhD
Barbara Berman, PhD
William S. Comanor, PhD
Diana W. Hilberman, DrPH
Robert M. Kaplan, PhD
William J. McCarthy, PhD
Stuart O. Schweitzer, PhD
Paul R. Torrens, MD, MPH

**Associate Professors**

Arturo V. Bustamante, MPP, PhD
Emmeline Chuang, PhD
Warren S. Comulada, MPH, DrPH, in Residence
Michael Ong, MD, PhD, in Residence

**Assistant Professors**

Aria Fallah, MD, MSc, FRGSC, FAANS, in Residence
Conrina Moucheraud, ScD

**Adjunct Professors**

Pamela L. Davidson, MS, PhD
Aram Dobbalian, JD, MPH, PhD
Laura S. Erskine, MBA, PhD
Artene Fink, PhD
Paul C. Fu, Jr., MD, MPH
Michael Galper, MPH, CPA
Emnett B. Keeler, PhD
Alice A. Kuo, MD, PhD
Antonio P. Legorreta, MD, MPH
Annette E. Maxwell, DrPH
Thomas M. Priselac, MPH
Anthony H. Schiff, JD, MPH
Steven M. Teutsch, MD, MPH
Elizabeth M. Yan, MSPH, PhD

**Adjunct Associate Professors**

Geoffrey F. Joyce, PhD
Dylan H. Roby, PhD
Samuel Y. Sessions, MD, JD
Richard E. Sinaiko, MPH
Stephanie L. Taylor, PhD, MPH
Alan J. Tomines, MD
Lorah J. Vriesman, MBA, MHA, PhD

**Adjunct Assistant Professors**

Sangeeta C. Aihuwalla, MPH, PhD
Sandra Aronberg, MD, MPH

**Scope and Objectives**

The field of health policy and management examines the organization and financing of various health sector and wider social system activities to prevent and treat disease. This includes programs in both the public and private sectors at all levels—local, state, and federal.

Faculty members come from such diverse fields 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 MS and PhD degrees in Health Policy and Management. 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. Graduates of the academic degree programs pursue careers in universities, as well as in public and private agencies involved in health services research and health policy analysis.

**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 Health Policy and Management offers Master of Science (MS), Doctor of Philosophy (PhD), and Executive MPH (EMPH) degrees in Health Policy and Management.
Health Policy and Management

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current relevance. 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 underclassmen. Credit may not be repeated. Letter grading.

188SF. 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 88SB course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

197. Individual Studies in Health Services. (2 to 4) Tutorial, four hours. 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.

Graduate Courses

200A–200B. Health Systems Organization and Financing. (4–4) Lecture, three hours; discussion, one hour. Limited to graduate health services students. In-depth analysis of health service systems in U.S., with related theories, concepts, and models. S/U or letter grading.

M202. Qualitative Research Design and Methodology for Indigenous Populations. (Same as American Indian Studies M202 and Nursing M221.) Seminar, three hours. Introduction to some key theoretical themes in American Indian studies and exploration of methods that incorporate the research in American Indian cultures, societies, languages, and other issues. Qualitative methods (design, appropriate use), with emphasis on qualitative research methods and techniques in conducting research in American Indian country. Design of research and exploration of feasibility of research topics. Letter grading.

203A. Applied Microeconomics. (4) Lecture, four hours. Requisites: Mathematics 3A or 3B or 31A. Course 203A is required to 203B. Basic concepts of microeconomics, with emphasis on their application to actual situations and their use in problem solving and focus on theories of choice and extensive use of differential calculus. Letter grading.

203B. Applied Microeconomics. (4) Lecture, four hours. Requisites: course 203A and one course from Mathematics 3A, 3B, or 31A. Basic concepts of microeconomics, with emphasis on their application to actual situations and their use in problem solving and focus on theories of choice and extensive use of differential calculus. Letter grading.

204A-M204B-M204N. Pharmaceutical Economics and Policy. (1–1–2) (Same as Economics M204L-M204M-M204N.) Seminar, three hours, every other week. Requisite: course M236. Limited to graduate public health and economics students. Various topics in economics of pharmaceutical industry, including rates of innovation, drug regulation, and economic impact of pharmaceuticals. In Progress (M204A, M204B) and letter (M204C) grading.

205. Pharmaceutical Policy. (4) Lecture, three hours. Policy issues pertaining to pharmaceutical sector. Topics include determinants of expenditures on drugs, pricing strategy in industry, health insurance coverage for pharmaceuticals, research and development process. Letter grading.

206. Healthcare for Vulnerable Populations. (4) Lecture, three hours. Overview of health services issues associated with organization, financing, and delivery of healthcare services to vulnerable populations within domestic and international contexts to gain understanding of social, political, economic, and cultural issues that lead to disparities in access, quality, and cost. Emphasis on applied practice with intent being improvement of health disparities in access, quality, and healthcare delivery in U.S. Letter grading.

trials. Provides skills in research methods for improvement and implementation studies in clinical settings (including community-based settings) and health systems. Completion of improvement research projects that demonstrate student competence in design and implementation. Fundamentals in research design and methods for conducting rigorous inferential evaluation in real world of implementation science, with emphasis on methods for generalizing results of improvement and implementation studies involving dynamic testing. Emphasis on case studies and applications so students gain skills in design and implementation. Letter grading.

226A-226B. Readings in Health Services Research. (2–2) Seminar, two hours. Limited to departmental MS and PhD students. Introduction to research literature in health services research, including literature on key conceptual models, classic empirical studies, and current research illustrating cutting-edge methods or findings. In Progress (226A) and S/U (226B) grading.

227A. Special Topics in Health Services: Current Research Issues. (2 to 4) Seminar, two hours. Designed for doctoral students. Review of articles in health services journals nominated as best published during 1990. Analysis of articles to determine contribution to theory, methods, and/or implications for management. Applications of research projects to health services as field may be repeated for credit with topic change. Letter grading.

227B. Special Topics in Health Services: Seminar Series. (2 to 4) Seminar, two hours. Designed for doctoral students. Discussion of proposed or ongoing research projects by faculty members and students, with discussion to determine relevant methodological and policy issues, as well as to offer constructive criticism. May be repeated for credit with topic change. Letter grading.

M228. Introduction to Mixed Methods Research. (4) (Same as Community Health Sciences M228.) Seminar, three hours; discussion, one hour. Limited to graduate students, 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 and conceptual and procedural tools for analysis of health and health services research, including feasibility studies, convergent parallel design, sequential mixed methods, and multiple embedded case studies. Combines 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 and economic theories to 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 populations. Health economics field provides public policy tools to evaluate distributional benefits/policies of health care. Emphasis on topics which illuminate current issues in public health policy. Discussion of historical perspectives on health-care providers, healthcare institutions, healthcare reform movements, public health, health activities, childbirth, and AIDS. S/U or letter grading.

231. History of Public Health. (4) Discussion, three hours. Designed for doctoral students. Emphasis on topics which illuminate current issues in public health policy. Discussion of historical perspectives on health-care providers, healthcare institutions, healthcare reform movements, public health, health activities, childbirth, and AIDS. S/U or letter grading.

232. Leadership Capstone Seminar. (4) Seminar, four hours. Preparation: completion of summer internship required for graduation; students completing their master’s training in health management and health policy. Examination of leaders and leadership in healthcare and other organizations to provide students with knowledge to literature on skills, behaviors, and characteristics of organizational leaders. Relationship and importance of vision, values, change, strategy, and communication. Identification of characteristics of successful leaders. Students evaluate their own leadership style and identity opportunities to further develop their leadership abilities. Letter grading.


235. Law, Social Change, and Health Service Policy. (4) Lecture, four hours. Preparation: two upper-division social science or sociology courses. Requisite: course 100. Legal issues affecting policy formulation for environmental, preventive, and curative health service programs. S/U or letter grading.

M236. Microeconomic Theory in Health Sector. (4) (Same as Public Policy M236.) Lecture, four hours; discussion, two hours. Preparation: intermediate microeconomics. Requisite: Biostatistics 100A. Microeconomic aspects of healthcare systems, including health insurance policy. Use of efficient modes of treatment, market efficiency, and competition. Letter grading.

237C. Issues in Health Services Methodologies. (6) Lecture, four hours. Preparation: at least four hours of courses 237A, 237B, Biostatistics 200A, 200B, or 201D. Designed for doctoral students. Intended to train students to use empirical and economic methods used in health services research, with focus on practical application of advanced regression models. Letter grading.

240. Global Health: Policy, Practice, and Science. (4) Lecture, four hours. Requisites: courses 201A and 201B, or M233. Techniques to assess broad impact that Autism Spectrum Disorder has on individuals, families, and communities, including access to services, ongoing therapies, and adult vocational and residential placement. Covers opportunities for research and national policy. S/U or letter grading.

249A-249Z. Special Topics in Health Services. (2 to 4) Hours to be arranged. Requisites for each offered topic to be announced in advance by department. Advanced seminars covering current issues and special topics in health policy, health financing, and organization and administration of health services. Sections offered for advanced bachelor’s and master’s degrees. S/U or letter grading.

251. Quality Improvement and Informatics. (4) Lecture, four hours. Requisites: course 100, Biostatistics 100A. Introduction to concepts of healthcare quality measurement, process improvement, and information systems, as well as organizational aspects of implementing them. Letter grading.

M252. Medicare Reform. (4) (Same as Public Policy M252.) 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 accommodate coming pressures generated by retirement of baby-boom generation. Letter grading.

255S. Obesity, Physical Activity, and Nutrition Seminar. (4) (Same as Community Health Sciences M255S.) Lecture, three hours; outside study, one hour. Designed for graduate students. Multidisciplinary introduction at graduate level to epidemiology, physiology, and current state of preventive and therapeutic interventions for obesity and related disorders. Includes public health policy approaches to healthy 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 healthcare outside U.S. Key areas 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. Requires: courses 200A, 200B. Designed to prepare students for challenges involved in conducting health services research on clinical topics and populations. Topics include formulating appropriate questions, identifying sources, mechanism of conducting field studies, identifying funding sources, writing grants, and publishing findings. S/U or letter grading.

266A–266B. Community-Based Participatory Health Research: Methods and Applications. (4–4) Lecture, one hour; discussion, one hour; fieldwork, two hours. Limited to clinical scholars fellows. Mentoring of field experiences with introduction to critical issues in conducting research in community settings. Review of assignments, interventions, and evaluation designs for community settings and discussion of practical issues in partnering with communities. Letter grading.

M269. Healthcare Policy and Finance. (4) As Public Policy M269 Seminar, three hours; outside study, nine hours. Designed for MS and doctoral students. Analysis of healthcare systems, policies for public insurance (Medicaid and Medicare), uninsured, and health insurance reform. Examination of effects of managed care on health and costs, comparative analysis, and rise of competitive healthcare markets. Letter grading.

M274. Health Status and Health Behaviors of Racial and Ethnic Minority Populations, (4) As Psychology 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.

280. Health Reform: Policy, Research, and Implementation Issues. (4) Seminar, three hours. Requires: courses 200A, 200B. Limited to second-year MPH and doctoral students. Analysis of components of major federal healthcare reform legislative initiative to identify important policy, research, and implementation issues. Application of principles of stakeholder analysis to understand how and why this legislation was constructed and how it passed Congress. Conducting of policy analyses of selected components through completion of written assignments. Examination of regulatory federal and state components in implementing and administering various components. Identification of significant implementation and administrative challenges at federal and state levels and development of possible strategies for addressing these challenges. Letter grading.


400. Field Studies in Health Services. (4) Fieldwork, to be arranged. Preparation: summer internship. Required of all graduating MPH students. Continuation of respective roles of federal and state government in organizing and conducting research, identifying and evaluating effectiveness of ongoing strategies to eliminate them, such as increasing insurance coverage and delivery of culturally competent healthcare. Examination of sociological models that explain disparities in healthcare and exploration and expansion on these models. Letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, for practice 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.

401. Public Health Informatics. (4) Lecture, three hours. Preparation: general familiarity and understanding of basic information technologies. Recommended requisite: course 251, introduction to field of public health informatics and examination of impact of information technology on practice of public health. Entire course, from systems conceptualization and design to project planning and development to system implementation and use. Letter grading.


M411. Issues in Cancer Prevention and Control, (4) (Same as Community Health Sciences M411L.) Lecture, four hours. Designed for juniors/seniors and graduate students. Introduction to causes and characteristics of cancer epidemic, cancer control goals for nation, and interventions designed to encourage smoking cessation/prevention, cancer screening, and other dietary, psychosocial, and lifestyle changes. Letter grading.

415. Organizational Analysis. (4) Seminar, four hours. Introduction to important questions and perspectives relevant to understanding organizational behavior and change in healthcare and public health environments. Active paradigms in organizational theory, particularly perspectives important for understanding delivery system change. Examination of empirical research to clarify how important organizational constructs have been operationalized and to highlight methodology-related challenges of studying organizations in healthcare/public health. Letter grading.

M420. Children with Special Healthcare Needs: Systems Perspective, (4) (Same as Community Health Sciences M420L and Social Welfare M380L.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices that have evolved to identify, assess, and meet the health care needs of infants and 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 MS and PhD students. Familiarity with conceptual and methodological frameworks 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 decades, particularly perspectives important for understanding efficacy in content of feasibility, reach, cost, and sustainability (i.e., external validity) and evaluation techniques 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, comment on their practicum experiences, and underscore community leadership concepts demonstrated by those CBOs. S/U or letter grading.

M428. Child and Family Health Program Community Leadership Seminar. (2) Seminar, as Community Health Sciences M428L.) Seminar, two hours. Designed for graduate students. Examination of characteristics of community-based organizations (CBOs) and role of leadership in decision-making processes 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, comment on their practicum experiences, and underscore community leadership concepts demonstrated by those CBOs. S/U or letter grading.

430. Healthcare Innovations and E-Health. (4) Lecture, four hours. Introduction of new technologies in healthcare delivery and public health services, 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 Resources in Healthcare Organizations. (4) Lecture, four hours. Managerial skills and behaviors applied to conceptualization of organizational behavior 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, policymaker, lobbyist, it is necessary to understand institutional and political context within which political process is made. Introduction to federal and state policy-making, with focus on health policy. Discussion of federalism and the various levels of government. Examination of stakeholders, public interest groups, and nature of issue space for health policy. Structure and process of political institutions at federal level, Congress, President, executive agencies, courts, and administrative law. State responsibilities and federal/state relations.

M434. Building Advocacy Skills: Reproductive Health Advocacy. (4) Lecture; seminar; one hour. Recommended requisite: one prior health policy course such as Community Health Sciences 247 or Health Policy 235. Designed for School of Public Health graduate and doctoral students. Skills-building course to develop competency in assessing, developing, and implementing advocacy strategies for reproductive health initiatives. Introduction to legislative and community advocacy initiatives and to policymaking process, including policy analysis and development of resources necessary for legislative advocacy. Identification of advocacy goals, objectives, and advocacy plan, coalition building, 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; three hours. Requisites: courses 200A, 200B. Examination of U.S. ambulatory care delivery system, with focus on more recent trends that are highlighted under Patient Protection and Affordable Care Act of 2010. Structure of ambulatory care service delivery system, infrastructure challenges, financing and role of healthcare reform in shaping future of ambulatory care, concepts of chronic care/disease management, medical home, and accountable care organizations, measurement, implementation, and impact of these models. Letter grading.

436. Healthcare Financial Management. (4) Lecture; four hours. Requisites: courses 234, 403. Designed to prepare students for financial management responsibilities in healthcare. Practical approach for identifying, analyzing, and making recommendations regarding fiscal issues facing health care organizations. Topics include capture and classification, break-even analysis under diverse payer scenarios, financial statement analytics, operational and capital budgeting, variance analysis, forecasting and planning, sensitivity analysis, FTSE, financial ratios, and utilization of financial dashboards. S/U or letter grading.


440. Healthcare Informatics. (4) Lecture; two hours. Requisites: courses 200A, 200B. Corporate and clinical levels of information technology in health care. Use of HIT systems in healthcare delivery organizations 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 productively used by healthcare delivery organizations, external research organizations, regulatory organizations, providers, and patients/consumers. Fundamentals of technology, electronic medical records (EMR), electronic health records (EHR), personal health information (PHR), meaningful use, interoperability, and health information exchanges (HIE). Letter grading.

440B. Health Information Systems: Organization and Management. (4) Lecture; two hours; laboratory, three hours. Requisite: course 440A. Health and administrative research using clinical records. Principles of planning for routine and special studies. Individual investigation in methods of obtaining and processing data to meet needs of programs in institution and agency. Introduction to principles of medical auditing; analysis of medical and health services. S/U or letter grading.

441. Data Analytics: Identifying, Collecting, and Analyzing Data in Health Care. (4) Lecture; three hours. Exploration of data sources and uses in health care, e.g., electronic medical records, social media, wireless biosensors, system and facility data. Review of hands-on techniques including data management, development of indexes and metrics, choosing and implementing analysis methods and visualizations. Discussion of role of data collection and processing within health care system. Letter 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.

**Faculty Roster**

**Professors**

Andrew Apter, PhD
Stephen A. Aron, PhD
Eric R. Avila, PhD
Peter Baldwin, PhD
Stephen A. Bell, PhD
Joel T. Bratlow, MD, PhD, in Residence
Soraya de Chaderevian, PhD
John Duncan, PhD
Caroline C. Ford, PhD (Peter Reilly Professor of European History)
James L. Gelvin, PhD
Nile S. Green, PhD (Ibn Khaldun Endowed Professor of World History)
F. Tobias Higbie, PhD
Russell Jacoby, PhD, in Residence
Robin D.G. Kelley, PhD (Gary B. Nash Endowed Professor of U.S. History)
Vinay Lal, PhD
Kelly A. Lyte Hernández, PhD
Valerie J. Matsumoto, PhD (George and Sakaye Aratani Professor of Japanese American Incarceration, Redress, and Community)
Michael Meranze, PhD
Michael G. Morony, PhD
David N. Myers, PhD (Robert N. Burt Endowed Professor of Medieval History and Delivery Professor and Sadie and Ludwig Kahn Professor of Jewish History)
Anthony R. Padgen, PhD
Carla Gardina Pestana, PhD (Joyce Oldapple Endowed Professor of America in the World)
David Phillips, PhD
Theodore M. Porter, PhD
Janice L. Reiff, PhD
Geoffrey Robinson, PhD
Teodoro F. Ruiz, PhD (Robert and Dorothy Wellman Professor of Medieval History)
Debora L. Silverman, PhD (Presidential Professor of Modern European History)
Sarah Abrevaya Stein, PhD (Maurice Amado Professor of Sephardic Studies)
Brenda Stevenson, PhD (Nickoll Family Endowed Professor of History)
Sanjay Subrahmanyam, PhD (Irving and Jean Stone Professor in Residence)
William R. Summerrill, PhD (Dr. E. Bradford Burns Professor of Latin American Studies)
Kevin B. Terraciano, PhD
Mary Terrai, PhD
Stefania Tutino, PhD
Richard von Glahn, PhD
Joan Waugh, PhD
Scott L. Waugh, PhD
William H. Wong, PhD
David K. Yoo, PhD

**History**

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Senior Lecturer SOE
S. Scott Barchty, PhD, Emeritus

Senior Lecturer
Mary F. Corey, PhD

Lecturer
John S. Langdon, 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 historical 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 premajor 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 debates
- 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

Required: Two courses from any history survey course: History 1A, 1B, 1C, 2B, 2C, 3A, 3B, 3C, 3D, M4, 5, 8A, 8B, 8C, 9A, 9C, 9D, 9E, M10A, 10B, 11A, 11B, 12A, 12B, 12C, 13A, 13B, 13C, 14, 20, 21, or 22; and one course from 96W or 97A through 97O.

After completing the three courses with a minimum grade-point average of 2.0, students should petition to enter the major in one of the undergraduate counseling offices, 6265 or 6290 Bunche Hall.

Preparation for the Major

Required: Three additional lower-division history courses.

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 C187R, 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.

One of the 16 courses for the premajor, preparation for the major, and major must predominantly cover history before 1700 CE, selected from History 1A, 1B, 2C, 3A, 8A, 9A, 9C, 9D, M10A, 11A, 11B, 14, 20, 21,
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 (99) 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 history the opportunity to pursue a rigorous program in the historical dimensions of science, technology, and medicine, and their place in society. 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 2B, 3A through 3D.

Required Upper-Division Courses (20 units): Five courses on topics in history of science, technology, and medicine: History 179A, 179B, 179C, 180A, M180B, 180C, 187I, 191I.

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 college seminar with a required research paper.

History 191I and 199 may be applied only once toward the minor.

Honors college 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.

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 maintain 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 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. Investigation of first civilizations in Near East and Egypt. Analysis 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. Proponents of economic, political, cultural, and intellectual changes that affected development of modern world. Topics covered include scientific, political, and social developments; relationship between Western Europe and non-Westerners; and development of Western Europe and non-Westerners. P/NP or letter grading.

1BH. Introduction to Western Civilization: circa 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. (6) 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 transformations. Topics covered include industrialization, rise of nationalism and mass politics, revolutionary movements, modernization, mass global migrations, European expansion and imperialism, and de-
1C. 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. Emphasis on struggles of underprivileged groups and their attempts to improve their own situations. Themes include development of public action and social discourse; how social knowledge differs in agricultural, 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. History of religion and science in the Middle Ages and Renaissance. Examination of experiences in context of the birth of modern science, and of 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 of modern science and its role in shaping society. Focus on key ideas and events in the history of science, including the development of the scientific method and the nature of scientific knowledge. P/NP or letter grading.

3A. Renaissance to 1800. Survey of developments in physical sciences involving transformation from Aristotelian to Newtonian cosmology, mechanization of natural world, rise of experimental science, and origin of scientific societies.

3B. Enlightenment to 1800. In this period science became a part of Enlightenment campaign for reason and freedom. Of particular note are the role of science in social change and evolutionary debates about science and religion demonstrate its rising intellectual and practical significance. Range of new scientific thinking starting new physics of relativity and the quantum, and of nuclear weapons, to molecular reductionism in biology and significance.

3C. History of Modern Medicine. (5) Lecture, three hours; discussion, two hours. Examination, through illustrated lectures and focused discussion of primary sources, of medical science in development of modern medicine: nature of diagnosis, emergence of surgery, epidemics, conception and treatment of insanity, and use of medical technology. P/NP or letter grading.

4M. Introduction to History of Religions. (5) (Same as Religion M4.) Lecture; three hours; discussion, two hours. Comparative study of eight major religious traditions, with emphasis on their beginnings and subsequent changes in their respective historical developments and interactions. Equips students with intellectual tools necessary for thinking analytically, empathetically, and comparatively about fascinating human phenomena—religions, philosophies, sacred texts, 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.

5. Holocaust: History and Memory. (5) Lecture, three hours; discussion, two hours. Holocaust, murder of six million Jews and other groups 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 changes to efforts to come to terms with this genocide. Exploration of forces that led to Holocaust, including emergence of scientific racism, anti-Semitism, and machine of modern state. Consideration of debates about imputations of genocide, including significance of gender and sexuality, relationship between war and genocide, meanings of resistance and culpability, and political and philosophical implications of Holocaust.

Exploration of how genocide of European Jewry was intertwined with targeting of other victims of Nazi rule, including Roma, Slavs, black Germans, disabled, homosexuals, and political opponents of National Socialism. P/NP or letter grading.

8A. Colonial Latin America (Honors). (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. Focus on ethnicity and gender development of colonial institutions and societies; and emergence of local and national identities. Readings focus on writings by indigenous and women from the period studied. P/NP or letter grading.

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, one hour. Introductory survey of social, political, 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 quest for sovereignty and its challenges in shadow of U.S., approached from bottom up through lens of social history, everyday life, and popular culture. P/NP or letter grading.

8BH. Modern Latin America (Honors). (5) Lecture, three hours; discussion, one hour. Honors course parallel to course 8B. P/NP or letter grading.

8C. Latin American Social History. (5) Lecture, three hours; discussion, two hours. Historical and contemporary perspective of role of ordinary people in Latin American society. Each lecture/film session centers on a major Latin American movie. P/NP or letter grading.

11A-11B. History of China. (5–5) Lecture, three hours; discussion, two hours. Honors sequence parallel to courses 11A, 11B, P/NP or letter grading. 11AH. To 1000 (Honors); 11BH. 1000 to 1950 (Honors).

12A. Inequality: History of Mass Impression. (5) Lecture, three hours; discussion, one hour. Beginning with beginning of World War II, historical analysis from days when Los Angeles first became U.S. town until 1940s when Los Angeles first became global epicenter of human confinement. Examination of turning points in city's rise as both national and global leader in human incarceration, with review of historical foundations of mass imprisonment in Los Angeles. Introduction to current social landscape of mass incarceration.

12B. Inequality: History of Neoliberalism. (5) Lecture, three hours; discussion, one hour. Explorations of origins, ideas, and consequences of neoliberalism—free trade, deregulation, and privatization. Combina- tion of political, economic, and intellectual history to construct genealogy of neoliberal thinking by attending to 18th- and 19th-century liberalism, colonialism, imperialism, rise of social democracy and military Keynesianism, and Mount Pelerin Society's Cold War resuscitation of 19th-century liberalism. Coverage focused on economic crisis of 1970s, rethinking of global political economy in U.S., Europe, global south—specifically debt, structural adjustment policies, environment, accumulation by dispossession, and labor. Tracing of colonial roots of global north-south divide to reveal how neoliberal policies represent longer process of accumulation by dispossession and enclosure rather than sudden radical break from Keynesian model. P/NP or letter grading.

12C. Inequality: Global History of Anti-Colonial Thought and Struggle. (5) Lecture, three hours; discussion, one hour. Ongoing growth and normalization of poverty, violence, and racial hatred in neo-liberal present have direct linkage to earlier moment when colonial rule of previous century brought about global structure of inequality. Examination of some of most important voices of anti-colonial and anti-imperialist struggle from comparative perspective in order to historicize current conjuncture. Readings include Aimé Césaire, Frantz Fanon, Ho Chi Minh, Totten Miyazaki, Sun Yat-Sen, Shusui Kotoku, Malcolm X, Che Guevara, Césaire, Frantz Fanon, Ho Chi Minh, Toten Miyazaki, and Mahatma Gandhi. Use of dialogue to reveal and reflect on commonalities and differences of thinker/activist pairs. Historical background for each thinker/activist allows for active engagement and discussion of texts. Group project as way to reflect on current conjecture. P/NP or letter grading.

13A-13B-13C. History of the U.S. and Its Colonial Origins. (5–5–5) Lecture, three hours; discussion, one hour. Strongly recommended for History majors planning to take more advanced courses in U.S. history. Cultural histories; political institutions, economic developments, and social interactions which created contemporary society. P/NP or letter grading.

14. Atlantic World, 1492 to 1830. (5) Lecture, three hours; discussion, one hour. Strongly recommended for History majors planning to take more advanced courses in history of any region bordering on Atlantic during period from 1500 to 1900. Exploration of idea of Atlantic world and mappings of regions that shaped its history, including migration, slavery, imperial conflicts, and revolution. Atlantic history approach avoids national frameworks that assume creation of later national divisions in order to understand larger, integrated region, one that gave rise to later nation states. In reconceiving how past is studied, highlights key connections, interactions, and circuits that gave rise to modern world. 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 and students interested in exploring many paths of discovery at UCLA. P/NP or letter grading.

20. World History to AD 600. (5) Lecture, three hours; discussion, two hours. Examination of earliest civilizations of Asia, North Africa, 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 literacy, diversity of religious and philosophical ideas, 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 as an unfolding of Industrial Revolution, structured around a broad chronological narrative of salient developments. Use of thematic and comparative approaches, with certain recurring themes and institutions that modulate from culture to culture. Reading of variety of contemporary accounts to look at way people perceived cultures outside their own. P/NP or letter grading.

22. Contemporary World History, 1760 to Present. (5) Lecture, three hours; discussion, two hours. Broad thematic survey of world history since the mid-18th century, examination, through lecture and discussion, of global implications of imperialism, total war, nationalism, cultural change, decolonization, changes in women’s rights and roles, and eclipse of world communism. Designed to introduce students to historical study, help them understand issues and dilemmas facing us today, and prepare them for further depth work in history of specific regions or countries of the world. P/NP or letter grading.

M60. Achaemenid Civilization and Empire of Alex- ander. (Same as Ancient Near East M60 and Ira- nian M60.) Lecture, three hours; discussion, one hour. Survey of period from circa 600 to 330 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, complex societies. Students gain broader 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.

88. Sophomore Seminars: History. (4) Seminar, three hours. Limited to maximum of 20 lower-division students. Readings and discussions designed to introduce students to current research in discipline. Culumminating project required. P/NP or letter grading.

88GE. Sophomore Seminar: Special Topics in His- tory. (5) Seminar, four hours. Requisite: designated GE lecture course; see Schedule of Classes for specific requirements. Designed specifically for sophomores/juniors. Exploration of aspects of lecture topic through readings, images, and discussions. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed 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 stu- dents. Honors content noted on transcript. P/NP or letter grading.

94. What Is History? An Introduction to Historical Thinking and Practice. (4) Lecture; two hours; dis- cussion, two hours. What is history, who is it that we study, how do we study it, and why should we study his- tory? Introduction to basic principles of historical in- quiry. Exploration of how we come to know about the past and why it matters. In-depth examination of how the historian works and analysis of sources and visual materials, including sites, P/NP or 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 readings, discus- sions, or other activities. P/NP grading.

97A-97O. Introduction to Historical Practice: Vari- able Topics. (4 each) Seminar, three hours. Discussions classes of no more than 15 students. Introduction to study of history, with emphasis on historical theory and research methods. Variable topics courses; con- sult Schedule of Classes for topics to be offered in specific course. P/NP or letter grading.

98. Undergraduate Research Seminar. (1) Seminar, one hour. Required for History majors as adjunct to lower-division underclassmen students under guidance of faculty mentor. Stu- dents must be in good academic standing and en- rolled in a three-hour (or more) seminar (or course), individual contract required; consult Undergraduate Research Center. May be repeated for credit. P/NP or letter grading.

Upper-Division Courses

100. History and Historians. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of historiography, including in- tellectual processes by which history is written, results of these processes, and development of history. Attention also to representative historians. P/NP or letter grading.

101. Topics in World History. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: junior standing for history majors and development of history. Attention also to representative historians. P/NP or letter grading.

101B. Asian History / 481. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of history of Asia, including economic, political, and cultural development of Asia. Attention also to representative historians. P/NP or letter grading.

102A. Iran and Persianate World. (4) Lecture, three hours; discussion, one hour (when scheduled). De- signed for juniors/seniors. Development of model of Persianate world to bring 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 in- tense intimacy, religious, and economic exchange. Weekly focus on particular theme, with lecture material supplemented by translations of writings of princes, poets, travellers, and mystics who created Persian republic of letters between Shiraz, Sa- marqand, and Delhi, and even as far as Siberia and China. Examination of why and how various ethnic and professional groups made Persian into one of most important languages in world history. P/NP or letter grading.

M103A-M103B. History of Ancient Egypt. (4–4) (Same as Ancient Near East 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. Chronological discuss- ion of Prehistory, Old and Middle Kingdoms, New Kingdom and Late period until 332 BC. M104A. History of Ancient Mesopotamia and Syria. (4) (Same as Ancient Near East M104A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural develop- ment of Fertile Crescent, including Palestine, from Late Uruk to neo-Babylonian period. P/NP or letter grading.

M104B. Sumerians. (4) (Same as Ancient Near East M104B.) Lecture, three hours. Designed for juniors/se- niors. Overview of Sumer and related cultures of Greater Mesopotamia in 4th and 3rd millennia BCE, with focus on rich cultural history of region and in- tegration of archaeological, art historical, and written re- cords. P/NP or letter grading.

M104C. Babylonians. (4) (Same as Ancient Near East M104C.) Lecture, three hours. Designed for juniors/se- niors. Overview of Babylon and cultural history of re- gion from late 3rd millennium BCE to invasion of Cyrus in 538 BCE, with focus on history and archaeology of region, urban structure, literature, and legal practices. P/NP or letter grading.

M104D. Assyrians. (4) (Same as Ancient Near East M104D.) Lecture, three hours. Designed for juniors/se- niors. Overview of Assyrian cultural history from its or- igns to end of Neo-Assyrian period (circa 612 BCE), with focus on rise, mechanics, and decline of Neo-Assy- rian Empire, which at its peak ruled ancient Near East from Zagros to Egypt. P/NP or letter grading.

105A-105B-105C. Survey of Middle East, 500 to Present. (4–4) (Same as Ancient Near East 482.) Lecture, two hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Background and circumstances of rise of Islam, cre- ation of Islamic Empire, and its development. Rise of Dynamic Successor States and Modern Nation States. Social, intellectual, political, and economic develop- ment. P/NP or letter grading. 105A, 500 to 1300; 105B, 1300 to 1700; 105C, 1700 to Present.


107A-107B-107C. Armenian History. (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 107A, Armenia in Ancient and Medieval Times; 107B, Millennium to AD 1190; 107C, Armenia from Cilician Kingdom through Periods of Foreign Domination and National Strifes, 11th to 19th Centuries; 107D, Armenia in Modern and Contemporary Times, 19th and 20th Centuries. Armenian question and genocide, national republic, Soviet Ar- menia, and dispersion.
History of France. (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of state institutions, culture, and society in Central Europe from end of Thirty Years’ War to end of Napoleon. 123A. War and Diplomacy in Europe. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Effects of two World Wars. Relations of France to European and world from 1945 to 1991. Origins of Cold War. Relations of Western, Soviet Union, and world from 1945 to 1991. ORI Lec 123B. History of Italy. (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 123A. Age of Silver in Spain and Portugal, 1479 to 1789. Development of popular history in Iberian Peninsula. Focus on peasants and urban life, gold routes, slave trade, historical women, and development of different types of collective violence. 123B. Rebellion and Revolution in Modern Spain and Portugal, 1789 to Present. Spain’s position in Europe and its potential as a new Europe discussed through investigations of urban history, agrarian social history, structure of women’s problems, and slow development of social, imperialism, anarchism, fascism. 123C. Old Regime and Revolutionary Era, 1715 to 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Revolution of 1789, and Napoleonic regime, viewing social and political changes unleashed by these revolutionary movements in comparative and transnational perspective. P/NP or letter grading. 123D. History of Low Countries. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examinations of Dutch and Flemish history from medieval period to period after World War II, with emphasis on political 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. 123E. Europe in Age of Revolutions, 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 Napoleonic regime, viewing social and political changes unleashed by these revolutionary movements in comparative and transnational perspective. P/NP or letter grading. 123F. History of Russia. (4) 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 M127A. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Russia’s history, and its culture, Anapage principalities and towns; Mongol invasion; unification of Russian state by Muscovy, Autocracy and its Servitors; P/NP or letter grading. 128A-128B. Cultural and Intellectual History of Modern Europe. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. The cultural and intellectual history of Europe from 1815 to 1917. Topics include nobility, peasant society, peasant society, refashioning of religion and power, and stagnation or stability? P/NP or letter grading. 128A-128B. History of Russia and its Culture, 90A or 119. Designed for juniors/seniors. Integrated introduction to important aspects of European history, with emphasis on specific topic within broad framework. May be repeated for credit with topic and/or instructor change. P/NP or letter grading. M133A-M133B. History of Women in Europe. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Course 131A generally requisite to 131B. Describes lives of various women. History of women in Selective bibliography and historical context; conceptions of women’s role in history of Europe from early Middle Ages to present. P/NP or letter grading. M133A. 800 to 1715; M133B. 1715 to 1871. Ancien Régime and time of revolutions. Critical discourse leading to French Revolution, collapse of nation, Napoleonic era, reconstruction of society through monarchies and revolutions of 19th century. 124C. Making of Modern France, 1871 to Present. From oligarchy to democratic bureaucracy in two wars and three republics.
134B-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 Revolution, revolutionary changes in technology, demographic patterns, education, transportation, and interrelationships between Western core and European peripheries in process of industrialization. 134C. 20th Century. Changing European economy after World War I and impact of fourth and fifth industrial Revolutions; Great Depressions of century during 1930s, 1970s, and 1980s; and changing modernization strategies; import-substituting industrialization in peripheries; Soviet modernization dictatorship in East Central Europe and its collapse; integration process of second half of century and rise of European Union; modernization model at end of century.

135A-135B-135C. Europe and World. (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 135A. Atlantic History. 1400 to 1700. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Origins and gradual increase of European dominance of world trade, impact of European colonialism in New World, Africa, and Asia, influenced revolutionary ideals that shaped in wake of Enlightenment of 18th century, and beginnings of industrialization. P/NP or letter grading.

135B. Colonialism, Slavery, and Revolution, 1700 to 1870. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Origins and gradual increase of European dominance of world trade, impact of European colonialism in New World, Africa, and Asia, influenced revolutionary ideals that shaped in wake of Enlightenment of 18th century, and beginnings of industrialization. P/NP or letter grading.


136A-136B-136C. History of Britain. (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of British economy, society, and polity, with focus on dynamics of both stability and change. P/NP or letter grading. 136A. Tudor-Stuart Times, 1485 to 1715. Political, socioeconomic, religious, and cultural history of Britain under Tudors and Stuarts. Topics include Reformation, transformation of economy, establishment of overseas colonies, 17th-century political upheavals and their impact on political and socioeconomic structures. 136B. Making of Modern Britain, 1715 to 1867. Social, economic, political, and cultural history of Britain from Hanoverian revolution to political and economic changes of 19th century. 136C. Modern Britain since 1832.

137A-137B. British Empire since 1783. (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.


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.

146C. Migrant Nation: How Mobility Shaped Americas. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Thematic and chronological 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.

146D. U. & Comparative Immigration History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Use of overlapping diaspora model that integrates North Atlantic (Europe), South Atlantic (Afro-Caribbean), Pacific (China/Japan/Hawaii) and Latin (Mexico to Brazil) migration flows to provide chronological and analytic survey of American and comparative immigration from 1750 to present. Special focus on Southern California, P/NP or letter grading.
M147C. 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. Introduction to major themes in history of early American women from initial confrontations of English and American Indian cultures in early 17th century to rise of women’s rights movement in mid-19th century. P/N or letter grading.

M147D. History of Women in U.S., 1860 to 1980. (4) [Same as Gender Studies M147D.] Lecture, three hours; discussion, one hour (when scheduled). Designed for 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/N or letter grading.

M147E. History of Deaf Communities in America. (4) [Same as American Sign Language M120.] Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of 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, audism, politics of deafness, eugenics, deaf revolution movements, and role of hearing technology. Historical development of emergence, growth, and survival of America’s deaf community and development of deaf identity over time. P/N 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 of case studies drawn from larger historical research used to inform museum exhibitions, public policy, historic commemoration, digital projects, and documentary and popular media productions. Readings, analysis of writing, and collaborative research, students engage with variety of 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/N or letter grading.

149A–I. North American Indian History. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of Native Americans from contact to present, with emphasis on social, political, and economic development of indigenous North American peoples and their cultures. Focus on selected Indian peoples in each period. P/N or letter grading. 149A. Precontact to 1683. M150A. Comparative Slavery Systems. (4) [Same as African American Studies M158A.] Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Examination of slavery experiences in various New World slave societies, with emphasis on outlining similarities and differences among status, power, and culture of North American, Caribbean, and Latin American slave societies as understood and practiced today.

150B–M150C. Introduction to Afro-American History. (4–4) [Same as African American Studies M158B–M158C.] Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of history of the American slave experience, with emphasis on three great transitions of Afro-American life: transition from Africa to New World slavery, transition from slavery to freedom, and transition from rural to urban life in the 19th century.

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, jazz, rock, rhythm and blues, soul, rock, and many other musical styles, offers student unique window into recent African American history. P/N or letter grading.


151A. History of Chicano Peoples. (4) [Same as Chicana and Chicano Studies M159A.] Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Survey course on historical development of Mexican (Chicano) community and people of Mexican descent (Indio-Mestizo-Mulato) north of Rio through 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 forces affecting community. Social structure, economy, labor, culture, political organization, conflict, and international relations. Emphasis on social forces, class analysis, social, economic, and labor conflict, ideas, and ideology. Developments related to historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, readings, assignments, written examinations, library and field research, and submission of paper. P/N 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 seniors. Survey 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 community. Framework of domination and resistance, citizenship, social structure, economy, labor, culture, political organization, conflict, and ideology. 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/N or letter grading.

151C. Understanding Whiteness in American History. (4) [Same as Chicana and Chicano Studies M159C.] Lecture, four hours. Examination of whiteness in American history, focusing on whiteness as a social construct. P/N or letter grading.

151D. Chicana Historiography. (4) [Same as Chicana and Chicano Studies M159D and Gender Studies M157.] Lecture, four hours. Examination of Chicana historiography, looking closely at how practice of writing history has placed Chicanas into particular historical narratives. Using Chicana feminist approaches to writing of history has placed Chicanas into particular historiography, looking closely at how practice of historiography affects the study of history, revisiting of specific historical periods and moments such as Spanish Conquest, Mexican Period, American Conquest, Mexican Revolution, and Chicano Movement. Special emphasis on key moments such as Spanish Conquest, Mexican Period, American Conquest, Mexican Revolution, and Chicano Movement. Special emphasis on making Chicana and Chicano history. P/N or letter grading.

151E. Latino Metropolis: Architecture and Urbanism in Americas. (4) [Same as Chicana and Chicano Studies M157.] Lecture, four hours. Introduction to history of architecture and urbanism in Americas, from fabled cities of Aztec empires and Mesoamerica to cities of Latin America. Focus on relationship between history, architecture, urbanism, and uses of architecture and city planning to forge new social identities rooted in historical experiences of conquest, immigration, nationalization, and revolution. P/N or letter grading.


153. American West. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of West as frontier and as region, in transition from frontier to rural to urban. Emphasis on cultural and social development of the West from 17th century to present. P/N or letter grading.

154. History of California. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of California history, from its founding to present. Emphasis on diverse peoples of the West, changing physical environment, varied interpretations of city, and Los Angeles’ place among American urban centers. P/N or letter grading.

155. History of Los Angeles. (4) [Same as Chicana and Chicano Studies M183.] Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of social and cultural development of Los Angeles and its environs from time of its founding to present. Emphasis on diverse peoples of the West, changing physical environment, varied interpretations of city, and Los Angeles’ place among American urban centers. P/N 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. May be repeated for maximum of 16 units with topic and/or instructor change. P/N or letter grading.

157A. Early Latin America. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Advanced survey of Latin American history from conquest to independence, with emphasis on society, politics, and cultural aspects. P/N or letter grading.

157B. Indians of Colonial Mexico. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Emphasis on social and cultural history of Indians of Mexico, especially central Mexico, from time of European conquest until Mexican independence, with emphasis on internal view of Indians and their role in development of culture produced by Indians themselves. P/N 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/N or letter grading.

160A. Latin American Eliteolore. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of social and cultural history of Latin American elites (defined as oral or noninstitutionalized knowledge involving leaders’ conceptual and perceptual life history views) in contrast to formal history (following academic or popular views). Eliteolore genres include oral history, literature, and cinema. P/N 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 unresolved colonial and 19th-century problems and crisis in modern Mexico, if in modified form. P/N 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 American countries. P/N or letter grading.

162A. Modern Brazil. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of development of colonial society in Brazil from dis-
174B. History of Southeast Asia since 1515. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of Southeast Asia since 1515. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

174C. Historical Perspectives on Gender and Science. (4) Same as Religion M180B.) 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 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.

180C. 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, industrialization, global 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.

181B. Topics in Jewish History. (4) (Same as Jewish Studies M181B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examine topics of major interest. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

181SL. Jewish Thought, Politics, and Ethics: From Theory to Practice. (4) (Same as Jewish Studies M181SL.) Lecture, three hours; discussion, 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 Jews played in reshaping Jewish identities, communities, and cultures. Examination 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 ethical and methodological implications of writing history. "Rap and learning thread and analyze these new media works as primary and secondary historical texts. Opportunity to contribute to body of historical work related to Los Angeles Jewish history through required service work with community partners and development of digital public history projects. P/NP or letter grading.

182A. Medieval 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 social, political, and religious developments. P/NP or letter grading.

182B. Modern 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 unfolding of Jewish history from rise of Christianity to expulsion of Jews from Spain in 1492. P/NP or letter grading.

182C. 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 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 concluding with nationalism, P/NP or letter grading.

183A-183B. Third Reich and Jews. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of early modern Jewish history beginning 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 concluding with nationalism, P/NP or letter grading.

183A. History of Southeast Asia to 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural history of peoples of Southeast Asia from earliest times to about 1815. P/NP or letter grading.

174A. Cultural and Political History of Contemporary South Asia. (4) 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 diasporic art forms such as bhangra rap andchetney 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. History of overseas Indian communities; transformations of Hinduism in diaspora; emergence of new diasporic art forms such as bhangra rap andchetney music; relations between Indians and other racial and ethnic groups; Indian women as embodiment of Indian culture; diasporic identities. P/NP or letter grading.

175C. Special Topics in Contemporary Indian History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of early modern Jewish history beginning 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 concluding with nationalism, P/NP or letter grading.

179C. Medicine and Society in 20th-Century America. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Sociocultural history of American medicine from Renaissance to Romantic era. Topics include establishment of anatomy, physiology, and human dissection of the body, medical approach to mental illness, rise of anato-moclinical method at Paris School. P/NP or letter grading.

167B. History of Southeast Asia: ASEAN since 1955. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of ASEAN since 1955. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

167C. Philippine History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, cultural, and political history of Philippines through American independence. Emphasis on questions of identity under colonialism, understanding Revolutions of 1896 and 1898, and the nation's first dis- course. Readings include introduction to major issues in Philippine historiography and literature. P/NP or letter grading.

167E. Vietnam: Past and Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history and culture of Vietnam from about 700 BC to present, including political, social, and economic developments as well as international relations in post-1954 period. P/NP or letter grading.

177A. National Histories of Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Variable topics with focus on history of Southeast Asia from thematic or comparative perspective. Topics may include history of human rights in Southeast Asia, gender and sexuality in island Southeast Asia, and economic history of Southeast Asia. P/NP or letter grading.

177B. Introduction to History and Culture of Iranian Jews. (4) Same as Iranian 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 intel- lectual history, may include status, religious tolerance versus forced conversion, Iranian Jewish emancipation, and dynamic symbiosis between Iranian Jews and other Iranians. P/NP or letter grading.

179A. Variable Topics in History of Medicine. (4) Lecture, three hours; discussion, one hour (when scheduled). Topics may include global health, biomedical technol- ogies, gender and medicine, Chinese medicine, psychiatry and mental illness, medicine and empi- demics and infectious disease. May be repeated for maximum of 16 units with topic/instructor change. P/NP or letter grading.

179B. History of Medicine: Foundations of Modern Medicine. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Cultural, scientific, and social context that shaped modern medicine from Renaissance to Romantic era. Topics include establishment of anatomy, physiology, and human dissection of the body, medical approach to mental illness, rise of anato-moclinical method at Paris School. P/NP or letter grading.

179C. Medicine and Society in 20th-Century America. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Sociocultural history of American medicine from Renaissance to Romantic era. Topics include establishment of anatomy, physiology, and human dissection of the body, medical approach to mental illness, rise of anato-moclinical method at Paris School. P/NP or letter grading.

180A. Topics in History of Science. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics may include sci-
M184A. Jewish Civilization. Encounter with Great World Cultures. (4) (Same as Jewish Studies M184A and Religion M184A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of dynamic and millennia-old intertwinement of Jewish with great world cultures. Creative adaptations that have lent Jewish culture its distinct and various forms. 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.

M184C. American Jewish Experience. (4) (Same as Jewish Studies M184C) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Experience of Jews in America, both historical and contemporary. P/NP or letter grading.

M185D. History of Zionism and State of Israel. (4) (Same as Jewish Studies M185D) 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.

M185A. History of Religions: Myth. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Nature and function of myth in history of religion and culture. Examples selected from nonliterate as well as other Asian and European traditions. P/NP or letter grading.

M185B. Religions of South and Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics vary from year to year and include religion of Veda; Brahmanism; (later) Hinduism. Consult Schedule of Classes for specifics. May be taken independently for credit. P/NP or letter grading.

M185C. Religions of South and Southeast Asia. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics vary from year to year and include Buddhism in India; religions of Java and Bali; nonliterate traditions of India and Southeast Asia. Consult Schedule of Classes for specifics. May be taken independently for credit. 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. Topics vary from year to year and include Judaism in the Near East, religious and nonreligious aspects of Islam and Christianity. Consult Schedule of Classes for specifics. May be taken independently for credit. P/NP or letter grading.

M185F. History of Early Christians. (4) (Formerly numbered M185F.) (Same as Religion M185F) Lecture, three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. Christian movement from its origins to circa 160 CE, stressing its continuity/discontinuity with Judaism, various responses to Jesus of Nazareth, writings produced during this period, movement’s encounters with its religious, social, and political world, and methods of research. P/NP or letter grading.

M185G. Religious Environment of Early Christians. (4) (Formerly numbered M185G.) (Same as Religion M185G) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Rich variety in thought in Mediterra- nean world of 1st century CE as in context of developing Christian movement. Topics include Pharisees, Qumran, Philo, Stoics, Epicureans, traditional Greek and Roman religions, mysteries, astrology, magic, gnosticism, and emperor-worship. P/NP or letter grading.

M185L. Jesus of Nazareth in Historical Research. (4) (Formerly numbered M185L.) (Same as Religion M185L) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course M185F. Designed for juniors/seniors. Stimulated by significant post-Enlightenment historical evaluations, students are led into firsthand knowledge (in translation) of various multilayered sources for reconstruction of life, teaching, and initial impact of Jesus of Nazareth in his social, economic, political, and religious contexts. P/NP or letter grading.

M186A. Women and Gender, Prehistory to 1792. (4) (Formerly numbered M186A.) (Same as Gender Studies M186A) Lecture, 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 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 andosexuality in different religions. Consideration of effects of European conquest on Mesoamerican women, women’s power in monarchies, gender dimensions of Atlantic revolutions. Manifestations of feminist consciousness in second half. Objects or texts created by women examined or read throughout. P/NP or letter grading.

M186B. Global Feminism, 1850 to Present. (4) (Formerly numbered M186B.) (Same as Gender Studies 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 one and one half centuries. P/NP or letter grading.

187A-187M. Variable Topics Historiography Proseminars. (4 each) Seminar, three hours. Proseminars on historiography 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 once for credit. P/NP or letter grading. 187A. Ancient History; 187B. Medieval; 187C. Europe; 187D. U.S.; 187E. Latin America; 187F. Near East; 187G. East Asia; 187H. Africa; 187I. Southeast Asia.


M191DC. CAPP Washington, DC, Research Seminars. (8) (Same as Communication M191DC, Political Science M191DC, and Sociology M191DC) Seminar, three hours; laboratory, 24 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 a research project 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.

M191DC. CAPP Washington, DC, Research Seminars. (4) (Same as Political Science M191DC and Sociology M191DC) Seminar, three hours; laboratory, 24 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 empirical 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.

195. Community and Corporate Internship in History. (4) (Formerly titled C195. Community and Corporate Internship 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 experiences. May be repeated for credit. P/NP grading.

1885C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced prerequisite: course 1885B. 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 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. Design- ed as adjunct to upper-division lecture course. Ind- ividual 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.


M191DC. CAPP Washington, DC, Research Seminars. (8) (Same as Communication M191DC, Political Science M191DC, and Sociology M191DC) Seminar, three hours; laboratory, 24 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 a research project 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.
Graduate Courses

M200V. Advanced Historiography: Afro-American. (4) (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. (4) (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.

M20X. Advanced Historiography: Oral History. (4) Seminar, three hours. Introduction to practice, methodology, and theory.

M20Y. Advanced Historiography: Application of Economics to History. (4) Discussion, three hours.

M20Z. Advanced Historiography: Chicanx. (4) Discussion, three hours. Graduate survey of leading liter-ature in Chicano history, with emphasis on new methodological and theoretical approaches in the field.

201A-201V. Topics in History. (4 each) Seminar, three hours. Graduate courses involving reading, lec-turing, and discussion of selected topics. May be re-peted for credit. When concurrently scheduled with 201A, 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. Modern East Asia; 201G. Modern Latin America; 201H. Near East; 201K. India; 201L. China; 201M. Japan; 201N. Africa; 201O. Science/Technology; 201Q. Dance; 201R. Jewish History; 201S. Arabian and Caucassian; 201T. Southeast Asia; 201U. Psychohistory; 201V. Digital History.

C201H-C201P-C201W. Topics in History (4) (Formerly numbered 201H-201P-201W) Seminar, three hours. Designed for graduate students. Reading and discussion of texts, may be repeated for credit. May be concurrently scheduled with course 191D-191K-191O, undergraduates must obtain consent of instructor to enroll. S/U or letter grading. C201H. U.S.; 201I. World; 201J. History of Religions; 201K. Digital History. (4) Seminar, three hours. Uses and techniques of Armenian oral history; preinterview, interview, and postinterview procedures; methods of compilation and evaluation. Field assignments, interviews, and summaries and/or paper based on interviews. S/U or letter grading.

M210. Topics in Ancient Iranian History. (4) (Same as Near East M208 and Iranian M210) Seminar, three hours. Topics vary on Elamite, Achaemenid, Arsacid, and late Persian periods. May be repeated for credit. S/U or letter grading.

211A-211B. Seminars: Armenian History. (4–4) Seminar, three hours. Course 211A is requisite to 211B. In Progress (202A) and letter (211B) grading.

212A-212B. Seminars: Armenian History. (4–4) Seminar, three hours. Course 211A is requisite to 211B. Topics vary on Armenia, Anatolian, and early Christian periods. May be repeated for credit. S/U or letter grading.

213A-213B. History of Women, Men, Sexuality. (4–4) Seminar, three hours. S/U or letter grading. 213A. Readings include historiography and theory, as well as classic and new historical studies drawn from U.S., European, Latin American, Middle Eastern, and Asian history to have diversity of interests and perspectives represented and discussed. 213B. Enforced prerequisite: course 213A. Research, analysis, drafting, and rewriting of student final papers.

213C. History of Women, Men, and Sexuality Historiography. (4) Seminar, three hours. Limited to grad-uate students. Exposure to new branch of gender historiography, focus on masculinity, focus on men per se, but on values, practices, and texts that constitute masculinity as one gender. Readings focus on broad range of chronological boundary to 20th century and geographical areas including Americas, Asia, Europe, and Middle East. S/U or letter grading.

214. Topics in World History. (4) (Formerly numbered 219A) Seminar, three hours. Graduate seminar utilizing world-historical perspective to examine va-riety 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. Three hour lecture to introduce students to the body of primary and secondary source materials used in the study of medieval history. Sources and handbooks provide documents and information about the medieval world.

M218. Paleography of Latin and Vernacular Manu-scripts. Methods in Ancient Latin Orality (4) Seminar, three hours. S/U or letter grading. 218A. Paleography of Latin and Vernacular Manuscripts. Three hour lecture to introduce students to the body of primary and secondary source materials used in the study of medieval history. Sources and handbooks provide documents and information about the medieval world. Course 218A is requisite to 218B. In Progress (218A) and letter (218B) grading.

M219. Paleography of Latin and Vernacular Manu-scripts. Methods in Ancient Latin Orality (4) Seminar, three hours. S/U or letter grading. 219A. Paleography of Latin and Vernacular Manuscripts. Three hour lecture to introduce students to the body of primary and secondary source materials used in the study of medieval history. Sources and handbooks provide documents and information about the medieval world. Course 219A is requisite to 219B. In Progress (219A) and letter (219B) grading.

M220. Paleography of Latin and Vernacular Manu-scripts. Methods in Ancient Latin Orality (4) Seminar, three hours. S/U or letter grading. 220A. Paleography of Latin and Vernacular Manuscripts. Three hour lecture to introduce students to the body of primary and secondary source materials used in the study of medieval history. Sources and handbooks provide documents and information about the medieval world. Course 220A is requisite to 220B. In Progress (220A) and letter (220B) grading.

M221. Paleography of Latin and Vernacular Manu-scripts. Methods in Ancient Latin Orality (4) Seminar, three hours. S/U or letter grading. 221A. Paleography of Latin and Vernacular Manuscripts. Three hour lecture to introduce students to the body of primary and secondary source materials used in the study of medieval history. Sources and handbooks provide documents and information about the medieval world. Course 221A is requisite to 221B. In Progress (221A) and letter (221B) grading.

M222. Paleography of Latin and Vernacular Manu-scripts. Methods in Ancient Latin Orality (4) Seminar, three hours. S/U or letter grading. 222A. Paleography of Latin and Vernacular Manuscripts. Three hour lecture to introduce students to the body of primary and secondary source materials used in the study of medieval history. Sources and handbooks provide documents and information about the medieval world. Course 222A is requisite to 222B. In Progress (222A) and letter (222B) grading.

M223. Paleography of Latin and Vernacular Manu-scripts. Methods in Ancient Latin Orality (4) Seminar, three hours. S/U or letter grading. 223A. Paleography of Latin and Vernacular Manuscripts. Three hour lecture to introduce students to the body of primary and secondary source materials used in the study of medieval history. Sources and handbooks provide documents and information about the medieval world. Course 223A is requisite to 223B. In Progress (223A) and letter (223B) grading.

M224. Paleography of Latin and Vernacular Manu-scripts. Methods in Ancient Latin Orality (4) Seminar, three hours. S/U or letter grading. 224A. Paleography of Latin and Vernacular Manuscripts. Three hour lecture to introduce students to the body of primary and secondary source materials used in the study of medieval history. Sources and handbooks provide documents and information about the medieval world. Course 224A is requisite to 224B. In Progress (224A) and letter (224B) grading.

M225. Paleography of Latin and Vernacular Manu-scripts. Methods in Ancient Latin Orality (4) Seminar, three hours. S/U or letter grading. 225A. Paleography of Latin and Vernacular Manuscripts. Three hour lecture to introduce students to the body of primary and secondary source materials used in the study of medieval history. Sources and handbooks provide documents and information about the medieval world. Course 225A is requisite to 225B. In Progress (225A) and letter (225B) grading.

M226. Paleography of Latin and Vernacular Manu-scripts. Methods in Ancient Latin Orality (4) Seminar, three hours. S/U or letter grading. 226A. Paleography of Latin and Vernacular Manuscripts. Three hour lecture to introduce students to the body of primary and secondary source materials used in the study of medieval history. Sources and handbooks provide documents and information about the medieval world. Course 226A is requisite to 226B. In Progress (226A) and letter (226B) grading.

M227. Paleography of Latin and Vernacular Manu-scripts. Methods in Ancient Latin Orality (4) Seminar, three hours. S/U or letter grading. 227A. Paleography of Latin and Vernacular Manuscripts. Three hour lecture to introduce students to the body of primary and secondary source materials used in the study of medieval history. Sources and handbooks provide documents and information about the medieval world. Course 227A is requisite to 227B. In Progress (227A) and letter (227B) grading.
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. 246A, 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.

M248. Anthropology and History of Mediterranean. (4) (Same as Anthropology 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. Focuses on critical history of anthropological study of Mediterranean and scholarly literature that emphasizes southern shores of Mediterranean. Letter grading.

249A-249B. Seminars: African American History. (4–4) Seminar, three hours. Course 249A is requisite to 249B. In Progress (249A) and letter (249B) grading.

250A-250B. Seminars: U.S. History of Middle 19th Century. (4–4) Seminar, three hours. Course 250A is requisite to 250B. In Progress (250A) and letter (250B) 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. 251A. Common readings and development of individual research projects. 251B. Required: course 251A. Research, writing, and critical discussion of draft papers.

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. 252A-252B. Seminars: Recent U.S. History since 1930. (4–4) Seminar, three hours. Course 252A is requisite to 252B. In Progress (252A) and letter (252B) 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: Political Economy of Race. (4) (Same as African American Studies M206B.) Seminar, four hours. Examination of historiography of history of capitalism and 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 questions of same as African American Studies M206B.) Seminar, four hours. Source identification, research methodologies, historiographical traditions, historical interpretation, approaches to teaching, and research design. Forum for critical discussion of dissertation coursework and other work in progress. Each course may be taken independently for credit. S/U or letter grading.

257A-257B. Colloquium: African History. (4–4) Seminar, three hours. Designed for all entering and continuing graduate students in history of Africa. Source identification, research methodologies, historiographical traditions, historical interpretation, approaches to teaching, and research design. Forum for critical discussion of dissertation coursework and other work in progress. Each course may be taken independently for credit. S/U or letter 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 M260C.) Lecture, two hours, discussion, one hour. Examination of revitalization movements among native peoples of North America (north of Mexico). Specific revitalization initiatives and forms of communal and cultural life among Native American populations.

261A-261B. Seminars: Afro-American History. (4–4) Seminar, three hours. Course 261A is requisite to 261B. Social and political history of the Afro-American, including emphasis on development and structure of race relations in America; racial concepts and dilemmas, black and white. In Progress (261A) and letter (261B) 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.

264A. History of American Education. (4) Seminar, three hours. Course 264A is requisite to 264B. In Progress (264A) and letter (264B) grading.

265A-265B. Seminars: Recent Latin American History. (4–4) Seminar, three hours. In Progress (265A) and letter (265B) 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 M266C.) Seminar, four hours. Designed for graduate students. Analysis of linguistic structure and ethnographic context of written texts and oral documents written by native-speaking 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.

M268A-M268B. Seminars: Recent Latin American History. (4–4) (Same as Latin American Studies M268A-M268B.) Seminar, three hours. Course M268A is requisite to M268B. Reading knowledge of Spanish and Portuguese normally required. Seminar devoted to selected topics of interdisciplinary nature. In Progress (M268A) and letter (M268B) grading.

275A-275B. Colloquium: African History. (4–4) Seminar, three hours. Designed for all entering and continuing graduate students in the field of African History. Source identification, research methodologies, historiographical traditions, historical interpretation, approaches to teaching, and research design. Forum for critical discussion of dissertation coursework and other work in progress. Each course may be taken independently for credit. S/U or letter grading.

M280. China Studies: Discipline, Methods, De- (Same as Chinese M280.) Seminar, two hours. Introduction to study of China as practiced in humanities and social sciences disciplines. S/U grading.
M281. Japan in Age of Empire. (4) Same as Anthropology M247P and Asian M242.) Seminar, three hours. Designed for graduate 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 hardly explored area of study of colonialism. S/U or letter 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.

290A-290B. Seminars: History of Religions. (4–4) Seminar, three hours. Course 290A is requisite to 290B. Studies in intellectual and social history of Jewish people from ancient times to modern period. In Progress (290A) and letter (290B) 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.

292A-292B. Seminars: History of Religion. (4–4) Seminar, three hours. Course 292A is requisite to 292B. In Progress (292A) and letter (292B) grading.

294A-294B. Western Science, Religion, and Political Economy, 1600 to 1830. (4–4) Seminar, three hours. Designed for graduate students. Western 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. Reading assignments and seminar-style discussions of such authors as Popper, Kuhn, Toulmin, Lakatos, Holton, Buchanan, 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.

298. 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.

299. Interdisciplinary American Studies. (6) Same as English M299.) Discussion, four hours. Readings, discussion, and papers on common theme, team-taught by faculty members from different departments. Topic varies according to participating faculty. 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. Preparation: apprentice personnel agreement 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 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 rhetorical and stylistic principles, illustrated in students’ own and in professional historians’ work, help students improve their own writing. May be repeated once. S/U grading.

495. Teaching History. (4) Seminar, to be arranged. Designed for graduate students. Required of all new teaching assistants. Lectures, readings, discussions, and practice teaching sessions within the structure of a seminar. Students receive unit credit toward full-time equivalency but not toward the core-course requirement for MA degree. 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.

596. Directed Studies. (1 to 8) Limited to graduate students. Individual direction and supervision provided by professor. MA candidates may take this course only once. Number of times PhD candidates may take this course is subject to consent of graduate studies committee. S/U or letter grading.

597. Directed Studies for Graduate Examinations. (1 to 8) Preparation for MA comprehensive examination or PhD qualifying examinations. S/U grading.

599. PhD Research and Writing. (1 to 8) Preparation: advancement to PhD candidacy. S/U grading.

HONORS COLLEGIUM
College of Letters and Science

4311 Murphy Hall
Box 951414
Los Angeles, CA 90095-1414

Honors College 310-825-1553

Faculty Committee

Maria (Maite) T. de Zubiaurre, PhD, Chair

Professor Committee

Maria (Maite) T. de Zubiaurre, PhD
German Languages, Spanish and Portuguese

Robert B. Goldberg, PhD
Molecular, Cell, and Developmental Biology

Kelly A. Lytle Hernández, PhD
Human Genetics, Medicine/Pharmacology

Zrinka Stahluljak, PhD
Comparative Literature, French and Francophone Studies

Christopher C. Tilly, PhD
Sociology, Urban Planning

Aaron Tornell, PhD
Economics

Aradhana K. Tripathi, PhD
Aerospace 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 and 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, 4311 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 to the present. Topics include scrofula, mycol, and medicine. S/U or letter grading.

2. Comparative Genocide. (4) Lecture, four hours; discussion, one hour. Social comparative study of genocide. Combining theoretical concepts with case studies of contemporary American history and medicine. S/U or letter grading.

3. Personal Brain Management. (5) Seminar, four hours. Designed for College Honors students. Available psychotherapists, educational media, and drugs can alter our way of thinking. New wave of information technologies and biotechnologies is changing existing landscape. Survey of 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. S/U 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. Span 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. S/U grading.

5. Representing Cleopatra: History, Drama, and Film. (5) Seminar, three hours. Examination of legendary queen of Egypt as seen by her contemporaries and in subsequent cultures and eras. Taught in English, with visual and cinematic representations. S/U or letter grading.

6. Energy Issues: Before and Now. (5) Seminar, three hours. Review of physics and chemistry of concepts of energy, history over ages of turning of discoveries into products in this area, including use of fossil fuel, and discussion of current energy issues, including alternative energies. S/U or letter grading.

7. Saint and Heretic: Joan of Arc and Gilles de Rais. History and Myth. (6) Seminar, three hours. Examinations of both history of Joan of Arc and de Rais and of way in which, over time, their histories became legends, driven by various agendas including national identity, beatification, and gender politics. S/U 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, autobiography, addressess, contagion, intimacy, and alienation to be drawn from texts spanning Shakespeare to Plath. 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. (5) Seminar, four hours. Opportunity for collaboration between those in science-related disciplines and those in art/humanities-related disciplines. New ways in which science can be visually communicated, using tools, techniques, and media that are typically outside science education. Science students learn innovative ways of presenting scientific data and design and science, media, 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. (5) Seminar, three hours; discussion, one hour. Designed for College Honors students. Prior knowledge of any foreign language not required. Introduction to language from sociocultural perspective. Use of research examples primarily in English, Japanese, and Russian to explore nature of and stereotypes about male and female genderlects and gendered language, as reflected in lexicon, 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 about natural laws, and artful in its own right, including elementary school, parents, and communities to complement scientific point of view. Connections to and discussion of arts and entertainment industry on such various as race, gender, cultural identity. Offered in mathematics, relevant views from popular culture, including gambling, playing card games, and student contributions. Sources include computer, control, space, and other contemporary scientific issues, and reckoning cases from East Asia, South America, and Polynesia. 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 portraits of profession, including representations of doctor/patient relations, healthcare 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. Introduction to a variety of mathematical and engineering topics. Ideas through stories from historical and anthropological sources. Simplification of topics that cause difficulties in traditional mathematics. Examples include: practical solutions to place of how was used in mathematics, relevant views from popular culture, including gambling, playing card games, and student contributions. Sources include computer, control, space, and other contemporary scientific issues, and reckoning cases from East Asia, 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 collected things and why we relate to them in daily life and in performance of cultural identity. Consideration of questions including how past and present intersect, how people have made sense of objects in the world and what significance they take on. Examples include: art, architecture, objects, and ideas. Insight into way that human beings value things and how they are used in traditional and contemporary cultures. Sources include computer, control, space, and other contemporary scientific issues, and reckoning cases from East Asia, South America, and Polynesia. P/NP or letter grading.


31. Scientific Method: Critical Inquiry into Questions of Extraordinary Life. (5) Seminar, four hours; discussion, one hour. Course does not presume to answer question of whether or not there is intelligent life in the universe but rather uses this question as a pedagogical tool to introduce central ideas, techniques, and limitations of the scientific method—that what questions would need to be asked, what scientific 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 lighter vibrant works of literature, film, and performance. P/NP or letter grading.

33. Sampling and Remapping Politics of Cultural Appropriation. (5) Seminar, three hours; laboratory, two hours. Enforced requisite: English Composition 3 or English as a Second Language 36. Designed for College Honors students. Contemporary media literacy has spurred production of amateur remixes of songs, films, images, and other media texts. But this is only one moment in far-reaching genealogy of cultural appropriation. Use of remixes as lens through which to explore aesthetics and politics of historical and contemporary forms of cultural appropriation, including remixes of political speech, viral
vices, and Comedy Madeups. Exploration of fine line between horrific cultural allusion 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 even constitute historical events? Examination of relationship between film and history and some ways in which film has functioned as history. Tracing questions of film and history from silent era to 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 Quality of Life and P.M.S. Hacker’s Intellectual Powers. Prompted by wide range of philosophical readings and employing Socratic method of asking questions, examination of place in our lives—especially our civic lives—of attention, memory, will, science, prudence, and assessment/creation of self. Like Aristotle’s peri- pathetic version of Plato’s Academy, class takes regular walks together, using UCLA and West Los Angeles as Lyceum, 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 rewriting and rewritings of traditional story types, specifically the adventure story as represented by Defoe’s Robinson Crusoe and its remanifestations in Coetzee’s Foe 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. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Science writing, particularly scientific texts, both contemporary and historical, that have been used to communicate science to and influence large groups of people’s beliefs and behavior. What is it about certain scientific texts, and what ways of reading them, that have the potential to affect social policy? Texts cover variety of topics from evolution to nutrition and food industry to the fairy tale as represented by Defoe’s Robinson Crusoe and its remanifestations in Coetzee’s Foe 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 Development. (4) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Historical and social study of waste and issues built into course. Satisfies Writing II requirement. P/NP or letter grading.

45. Politics of Reproduction. (4) Seminar, three hours. Examination of complex relations between individual, local, and global interests as they shape and reflect reproductive practices, public policy, and exercise of power. P/NP or letter grading.

46. Drugs in Society: Interdisciplinary Perspective. (5) Seminar, three hours. Enforced requisite: English Composition 3. Designed for College Honors students. Exploration of relationship between body and mind: when are they most in harmony and when are we alienated from this potential unity? When do we value one part of ourselves over another and why? What cultural, social, political, and personal influences determine answers to these questions? Topics include Cartesian dualism, pluralistic intelligence, mental and physical health, and views of body/mind as integrated unit. Satisfies Writing II requirement. P/NP or letter grading.

70A. Gene Discovery Laboratory. (5) Seminar, three hours; laboratory, five hours. Recommended requisite: course 70A. Laboratory work in genomics research and seminar discussion that apply experimentally concepts and techniques taught in course 70A. P/NP or letter grading.

71. Cross-Cultural Approaches to Media History and Culture. (5) Seminar, three hours. Examination of media, media history, and media culture from cross-cultural perspective, one that demands redefinition of media and understanding of art in cross-cultural context. P/NP or letter grading.

77. Greeks and Persians: Ancient Encounters from Herodotus to Alexander. (5) Seminar, three 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 Mediterranean, to Alexander’s defeat of Darius III. Consideration of mutual constructions of other in antiquity, Near Eastern versus Greek testimony, and art and archaeological evidence of these two civilizations. P/NP or letter grading.

78. Science and Religion from Copernicus to Darwin. (5) Seminar, three 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 Mediterranean, to Alexander’s defeat of Darius III. Consideration of mutual constructions of other in antiquity, Near Eastern versus Greek testimony, and art and archaeological evidence of these two civilizations. P/NP or letter grading.

79. Personal Financial Health: Theory and Practice. (5) Seminar, three hours; fieldwork, four hours. Designed for College Honors students. Special economics or mathematics preparation not required. Theory and practice of managing 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.

80. Cossacks and Narratives about Them. (5) Seminar, four hours. Designed for College Honors students. Examination of two Cossack societies: Ukrainian (Zaporozhian) Cossacks and Russian (Don) Cossacks. Both emerged in 15th and 16th centuries as wandering warriors and formed the Slavic world and Muslim Tatar and Turkic world. Their frontier status and liminal culture proved to be mythogenic, and Cossacks figure prominently in imagination of cultures they impacted in centuries past, as well as in folklore, literature, film, and opera. Study of Cossacks through these media to understand not just Cossack society but ways in which Cossacks have been
viewed through paradigms of Polish, Russian, Ukrainian, Jewish, Ottoman, and west European cultures. P/NP or letter grading.

82. Community and Labor Development from Ground Up. (4) Lecture; three hours; discussion, one hour. Introduction to practical applications of community development and outreach efforts in Los Angeles area, with projects from Community Outreach Partnership Center within School of Public Policy and Social Research. P/NP or letter grading.

83W. Political Theory and Literature. (6) Seminar, four hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3E. Examination of relationship between theory and literature in study of literature from classical times to the present, broadening into general discussions of development of political discourse in Western thought, particularly conflict between self and state, between ideology and the practical business of living. Satisfies Writing II requirement. Letter grading.

84. Conflicts Between Languages. (5) Seminar, three hours. Introduction to potentially conflict-ridden language environments and countries and broad discussion of various aspects of minority languages in the U.S. P/NP or letter grading.

85. Biological Clock. (5) Seminar, four hours. Designed for College Honors students, but open to all majors. Relates biological rhythms imposed diurnal oscillations of physical changes on all living organisms on Earth. Protein complexes, called circadian or biological clock, allow organisms to anticipate and adapt to daily environmental changes, and knowledge of it comes from molecular biology, biochemistry, cell biology, genetics, and genomics. Study of these processes and interdisciplinary methodologies to understand how biological clock works and how it affects health and well-being. P/NP or letter grading.

86. Psychology of Fear. (5) Seminar, three hours; fieldwork, one hour. Examination of phobias, including inquiry into biological processes and how they affect fear reduction strategies. P/NP or letter grading.

87W. Worlds of Neil Gaiman: Graphic Novels, So...
through use of powerful computer platform called TradeStation in 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 rates by combining theoretical concepts with real-world data using concepts and techniques from computer science, linguistics, and statistics. How to write simple codes 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 cultural studies, including classics texts, theoretical and 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. Considerations of social, political, economic, psychological, and cultural dimensions of our hyperconnected world via Internet. Topics include transformations 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, body of architectural work originating in Los Angeles but reaching world average that turns magnifying glass around and exposes Hollywood's own severe problems when it comes to racial and cultural diversity. Exploration of differing media representations—how they occur, why they persist, and what they can teach about current racial divides in America. Examination of how Hollywood represents different races, cultures, and groups. P/NP or letter grading.

120. Art and Performance: Interdisciplinary Approach to Collections of Getty Center. (4) (Same as Theater M109.) Lecture, four hours; discussion, one hour. Examination of collections at the Getty Museum, focus on five parallel historical periods in which political, social, and aesthetic philosophy of age is examined in musical and dramatic performance. Letter grading.

121. Psychoanalysis before Freud, and a Little After. (5) Lecture, three hours; discussion, one hour. Examination of different ways human beings have developed conceptions of themselves through history from early childhood to adulthood. Reformations, scientific revolution, Enlightenment, origins of modern world, Freud's fin 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. Development of chemical communication governs relationships among most biological entities, across entire tree of life from viruses to Homo sapiens. Biosynthetic devices are using knowledge gleaned in chemical exchange face of robotics, with wide applications in consumer industries, homeland security, and space exploration. Chemical, physical, and biological principles to be combined as key to increasing the lift-to-drag ratio and larger lesson in synthesis. Synthesis of information and concepts across disciplines to develop student hypothesis and conclusions. P/NP or letter grading.


124. Midwives, Mothers, and Medicine: Perspectives on History of Childhood. (4) Seminar, three hours. Examination of variety of practices associated with childbirth over time and across cultures, addressing such questions as: How have different groups remembered by his players, and relationship between his philosophy and academic research. His philosophic influences as lens through which to explore research in fields of sport and education psychology. Connects different elements of Coach Wooden's pyramid of success (and other aspects of his coaching philosophy) to research in psychology. P/NP or letter grading.

141. The Elusive Leo: Gender, Race, and Justice in America. (5) Seminar, three hours. Study of historical and contemporary moments of racial violence, empire, and social justice in Asia and Pacific Islands. Global forces such as capitalism, colonialism, and empire 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 participatory study of interactions between citizenship, leadership, and service, including both theoretical work in classroom and practical work in service organizations in the field. P/NP or letter grading.

128. What We Do When We Laugh Together: Humanistic, Social Scientific, and Biological Perspectives. (5) Seminar, four hours. Designed for College Honors students. Application of venerable humanist insights and social scientific thinking to contemporary social phenomenon of human laughter and humor. What causes laughter and how has society responded to it? Locke and Bahktin would have disputed them for different reasons. Use of their ideas to critically evaluate how social scientist investigate mass media. Humor as vehicle of satire of the establishment. P/NP or letter grading.

129. Research in Psychology and Legacy of John Wooden. (5) Seminar, four hours. Designed for College Honors students. Exploration of life and work of Coach John Wooden, with particular attention to his philosophy of success, how he is remembered by his players, and relationship between his philosophy and academic research. His philosophic influences as lens through which to explore research in fields of sport and education psychology. Connects different elements of Coach Wooden's pyramid of success (and other aspects of his coaching philosophy) to research in psychology. P/NP or letter grading.

130. Speeding the Cure: Can Activists Make a Difference? (5) Seminar, four hours. Designed for College Honors students. Study of how economic, political, and social forces have shaped biomedical science. What are the best ways to confront specific health challenges? Analysis of scientific, medical, social, economic, and political aspects of health inequities, drug pricing, and policy, as well as the roles of experts and expertise in formulating goals and strategies. Topics include aging, autism, AIDS, breast cancer, clean water, gun violence, prostate cancer, rare diseases, and vaccines. P/NP or letter grading.

131. Global Dimensions of Education and Inequality. (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 poor countries and poor people who reside in rich 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 political economy and culture affect character and performance of schools. P/NP or letter grading.

132. New Women and Activism from America to Asia. (5) Seminar, three hours. Designed for College Honors students. Spanning of academic disciplines and regional boundaries by looking at women's movements in U.S. and East Asia in early 20th century, with examination of how ideas of women's rights, labor rights, and race/ethnicity were united and divided women across classes and national borders. Examination of suffrage movement in 1913 New York and
parallel movements in East Asia (Japan, Korea, China) that adapted and adopted some of these same ideas to their own unique historical circumstances. Use of highly successful Reacting to Past historical role-playing game titled Greenwich Village, 1913: Suffrage, Labor, and Sexes or letter grading.

133. 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 and understanding of the culture and kinds of ethical issues raised in doing fieldwork. P/NP or letter grading.

134. Democracy and Utopias. (5) Seminar, three hours. Democracy is also a living and growing construct of and constant reform and is also wary of radical upheavals. Political culture of ancient Greek democracy made possible two things: awareness of having achieved unmatched superiority over any other society and birth of utopia. Democracy praised itself as perfect form of government, but it let flourish counterfactual objections to quest for absolute, just, and blissful political order. Examination of this paradoxical link between democracy and utopia by tracing its history in works of Aristophanes, Plato, Thomas More, Tommaso Campanella, Francis Bacon, and Fourier to show relevance to contemporary politics. P/NP or letter grading.

135. Poetry and Society in Engal. (496) Seminar, three hours. Examination of Confucian Tradition, from War of the Chivalrous to the Analects of Confucius on Chinese and Asian culture. P/NP or letter grading.

140. Dominants and Subordinates in Social Psychology of Privilege and Oppression in Public Education. Four discussion, one hour; tutorial three hours. Examination and temporary inequalities in contemporary American public school, showing how such entrenched inequalities tend to become permanent. Field component included. P/NP or letter grading.


142. Free Will and Moral Responsibility: From Neuropsycho to Philosophy and Back. (5) Seminar, four hours. Surveys of motions, methods, and conceptions of neuroscientists and psychological investigations of free will. Consideration of neuroscientific arguments that humans are not free when they choose and of philosophical arguments that is required for freedom and what is required for responsibility. Discussion of extent to which philosophical investigations of free will inform neuroscience and whether and how experiments could be carried out to better correspond with philosophical and legal debate on free will. P/NP or letter grading.

143. Catholic Tradition in Political Culture. (5) Lecture, four hours; discussion, one hour; examination. Importance and impact of Confucius on Chinese and Asian culture. P/NP or letter grading.

144. International Development: Using Your Major For Doing Well and Doing Good. (5) Seminar, three hours. Adoption of the United Nations' Sustainable Development Goals (2015) called for addressing extreme poverty, disease, environmental degradation, gender inequities, unemployment, 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? What goal speaks to your interest? What key concept or passion do you have that can contribute to addressing one or more of the goals? P/NP or letter grading.


146. Dominants and Subordinates of Political Thought. (5) Seminar, four hours. Examination of the goals of political thought and thinking about this century's political thought. Interplay of form, content, and meaning within these modes. Evidence offered about personal psychology, gender politics, and status competitions among all and especially Dominant, Henry, Jonson, Carew, and Marvell. What kind of work were the poems doing? How, and how well, were they doing it? And, what kinds of work should we do on them now? P/NP or letter grading.


137. Living Dharma in America: Perspectives on Race and Buddhism. (5) Seminar, three hours. De-construction of colonial histories behind images of Buddhism such as bald, saffron-robbed monks; or, golden temples with scent of incense; serene Zen meditation centers; and popular Buddhists from Richard Gere to Thich Nhat Hanh to the Dalai Lama. P/NP or letter grading.


160. Advanced Honors Seminar. (5) Seminar, three hours. Designed for College Honors students. Historical overview of literature, philosophical, and theological writings on asceticism, with particular attention to late antiquity and medieval periods. Study of asceticism from desert fathers to Aquinas, Nietzsche on asceticism, and Foucault on ancient ascetics. Literary readings include selections from Raeburn, Melville, Kafka, Eliot, and Well. 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 intimate others, usually family members, coming to terms with family members’ new racial/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 why Paris became fulcrum for political revolutions. Examination of Paris as literary and philosophical center and as the site of Napoleon’s short-lived and disastrous reign and departure 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. Historical 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. P/NP or letter grading.


171. Rationality and Emotions. (5) Seminar, three hours. Historical study of way in which philosophers, social theorists, and literary commentators have scientifically characterized relationship between rationality and emotions, culminating in emerging consensus that emotions can positively 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. Thinkers include Pascal, Rousseau, Marcel Mauss, and Emile Durkheim from early modern period, contemporary thinkers such as 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. Exploration of nature of American political thought between Revolution and Civil War. Topics include nature of rights, federalism, nationalism, and democracy, as well as morality of slavery and legitimacy of succession. P/NP or letter grading.

173A. Liberty, Government, and Society in Europe: From the Enlightenment to the Great War. (5) Seminar, four hours. Examination of great works of European thought from 17th through 18th century, 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.


174. Future Impact of Nano in New Technologies. (5) Seminar, four hours. Examination, for general audience, of science behind nanotechnology and way in which nano can potentially influence medical care, environment, energy issues, military, government, and economics. Demonstration of how nano, like computer technology, cannot be separated from ethical, cultural, political, and social issues. P/NP or letter grading.

M175. Terrorism, Counterterrorism, and Weapons of Mass Destruction: Practical Approach. (5) Same as Epidemiology CM175.) Seminar, four hours. Theorization of terrorism and how to combat it. Topics include biography of terrorists, weapons of mass destruction, and the global war on terrorism. 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 the contemporary 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 debate. Exploration of history of biotechnology as well as social implications of this science. P/NP or letter grading.

178. Secret Coup, Imperial Wars, and American Democracy since World War II. (5) Seminar, three hours. Study of U.S. involvement, both covert and overt, in expeditionary wars since World War II, including involvement in Vietnam, Korea, Cuba, Iran, Guatemala, Nicaragua, and Chile, and implication of these actions for vitality of American democracy. P/NP or letter grading.


181. From Scientific Revolution to Industrial Revolution. (5) Seminar, four hours. Designed for College Honors students. Examination of most important developments in making up modern intellectual world of science and democracy: rise of new science and its relationship first to British, then European, Industrial Revolution. Once seen as solely product of material factors such as abundant coal, high wages, and availability of labor, Industrial Revolution is shown as also possessing critically important knowledge of components, one scientific core derived from Greek, Newtonian science and mechanics. P/NP or letter grading.

M183. Being Human: Identity in Age of Genomics and Neuroscience. (5) Formerly numbered 183.) 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 Pragmatism treatment emphasis on personal identity. En- during philosophical questions regarding personal identity, consciousness, selfhood and mind-body rela- tionship are investigated through consideration of conditions such as multiple personality 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 inept partition 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 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 prepa- ration 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 faculty mentor while facilitator participates in USIE 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 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. De- signed as adjunct to regularly scheduled 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
HUMAN GENETICS

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Stefan Horvath, PhD
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Janet S. Sinshheimer, PhD

Eric M. Sobel, PhD, in Residence
Marc A. Suchard, MD, PhD
Stephen G. Young, MD

Professors Emeriti
Stephen D. Cederbaum, MD
Richard A. Gamblin, MD (Rebecca Smith Professor Emeritus of A-T Research)

Associate Professors
Brett L. Fogel, MD, PhD, in Residence
Kh.H. Lohmueller, PhD
Julian A. Martinez, MD, PhD
Bogdan Pasaniuc, PhD

Assistant Professors
Jingyi Jessica Li, PhD
Sriram Sankararaman, PhD

Adjunct Professors
Katrina M. Dipple, MD, PhD
Jeannette C. Papp, PhD
Eric J.N. Vilain, MD, PhD

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 cellular biology, 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

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

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

CM124. Computational Genetics. (4) Same as Computer Science CM124.) Lecture, four hours; discussion, two hours; outside study, six hours. Required: 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 121A, 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 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 from statistics and computer science. Concurrently scheduled with course CM224. Letter grading.

CM136C. Societal and Medical Issues in Human Genetics. (6) Same as Society and Genetics M102.) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts concepts of ourselves as individuals and of our place in biological universe, concepts of race/ethnicity and gender, ability of DNA-based forensics to identify specific individuals, ownership and commodification of genes, issues of privacy and confidentiality, issues of genetic discrimination, issues of predictive genetic testing. Discussion of human cloning for reproductive and therapeutic purposes. Exposure to medical genetics cases. Discussion of role of whole genome sequencing in clinical
setting, Human Genome Project influence on medicine and on our concepts of self and identity. Concurrently scheduled with course C236C. Letter grading.

C236C. Societal and Medical Issues in Human Genetics. (4) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts concepts of ourselves as individuals and of our place in biological universe, including variability and gender, ability of DNA-based forensics to identify specific individuals, ownership and commodification of genes, issues of privacy and confidentiality, issues of genetic discrimination, issues of predictive genetic testing. Discussion of human cloning for reproductive and therapeutic purposes. Exposure to medical genetics cases. Discussion of role of whole genome sequencing in clinical settings. Human Genome Project influence on medicine and on our concepts of self and identity. Concurrently scheduled with course CM136C. Letter grading.

C244. Genomic Technology. (4) Lecture, three hours; discussion, two hours. Basic molecular, genomics, bioinformatics techniques. Introduction to methods of gene mapping. Selected regions of human genomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from many generations. Can be used to assemble linkage maps; strategies for generating recombinant inbred lines. S/U or letter grading.

M225A. Directed Individual Study and Research. (2 to 12) Active participation and oral and written presentations. Topics in genomics and computational genetics and bioinformatics. S/U grading.

M255. Mapping and Mining Human Genome. (3) (Same as Pathology M255.) Lecture, three hours. Basic molecular, genomics, bioinformatics techniques. Introduction to methods of gene mapping. Selected regions of human genomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from many generations. Can be used to assemble linkage maps; strategies for generating recombinant inbred lines. S/U or letter grading.

M260A. Introduction to Bioinformatics. (4) (Same as Biomathematics M221, Chemistry CM260A, and Computer Science CM221.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 111, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with statistics, 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 in machine learning. Examination 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 Computer Science M229S.) Seminar, four hours; outside study, eight hours. Designed for graduate engineering students as well as students from biological sciences and medical school. Introductions to current topics in bioinformatics, genomics, and computational genetics and therefore computational tools and techniques. Lecture, discussion, seminar, laboratory, computer laboratory. S/U or letter grading.

M239. Seminar in Human Genetics. (2 to 10) Advanced, Human Genetics A: Molecular Aspects. (4) Lecture, three hours. Requisites: Basic biology equivalent to Biostatistics 100A or Statistics 13 and general knowledge equivalent to Ecology and Evolutionary Biology 121, Human Genetics 239A, or Molecular, Cell, and Developmental Biology 12. Reading materials include original research papers and reviews. Letter grading.

M225. Stochastic Models in Biology. (4) (Same as Biomathematics M203.) Lecture, four hours. Requisites: Mathematics 170A or equivalent experience in probability. Mathematical description of biological 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 sciences. S/U or letter grading.


M224. Genomic Technology. (4) (Same as Bioinformatics M224 and Computer Science CM224.) Lecture, four hours; discussion, one hour. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, Mathematics 23A, and one course from Civil Engineering 111, Electrical Engineering and Computer Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences. Introduction to computational analysis of genetic variation and computational interdisciplinairy research in genomics. 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 from statistics and computer science. Concurrently scheduled with course CM124. Letter grading.

M226. Machine Learning in Bioinformatics. (4) (Same as Data Science M226.) Lecture, four hours; outside study, eight hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, Mathematics 23A, Civil Engineering 111, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with statistics, 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 in machine learning. Examination 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 Computer Science M229S.) Seminar, four hours; outside study, eight hours. Designed for graduate engineering students as well as students from biological sciences and medical school. Introduction to computational tools and techniques. Lecture, discussion, seminar, laboratory, computer laboratory. S/U or letter grading.

M235. Computational Methods in Genomics. (4) (Same as Biomathematics M225 and Computer Science M225.) Lecture, two and one half hours; discussion, two and one half hours; outside study, seven hours. Introduction to computational methods in bioinformatics, genomics, and computational genetics and therefore computational tools and techniques. Lecture, discussion, seminar, laboratory, computer laboratory. S/U or letter grading.

M292. Advanced Human Genetics A: Molecular Aspects. (4) Lecture, three hours. Requisites: Basic biology equivalent to Biostatistics 100A or Statistics 13 and general knowledge equivalent to Ecology and Evolutionary Biology 121, Human Genetics 239A, or Molecular, Cell, and Developmental Biology 12. Reading materials include original research papers and reviews. Letter grading.

M244. Genomic Technology. (4) Lecture, three hours; discussion, two hours. Basic molecular, genomics, bioinformatics techniques. Introduction to methods of gene mapping. Selected regions of human genomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from many generations. Can be used to assemble linkage maps; strategies for generating recombinant inbred lines. S/U or letter grading.

M225A. Directed Individual Study and Research. (2 to 12) Active participation and oral and written presentations. Topics in genomics and computational genetics and bioinformatics. S/U grading.

M255. Mapping and Mining Human Genome. (3) (Same as Pathology M255.) Lecture, three hours. Basic molecular, genomics, bioinformatics techniques. Introduction to methods of gene mapping. Selected regions of human genomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from many generations. Can be used to assemble linkage maps; strategies for generating recombinant inbred lines. S/U or letter grading.

M260A. Introduction to Bioinformatics. (4) (Same as Biomathematics M221, Chemistry CM260A, and Computer Science CM221.) 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 111, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with statistics, linear algebra, and algorithms expected. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and computational tools and techniques. Lecture, discussion, seminar, laboratory, computer laboratory. S/U or letter grading.

M265. Computational Methods in Genomics. (4) (Same as Biomathematics M225 and Computer Science M225.) Lecture, two and one half hours; discussion, two and one half hours; outside study, seven hours. Introduction to computational methods in bioinformatics, genomics, and computational genetics and therefore computational tools and techniques. Lecture, discussion, seminar, laboratory, computer laboratory. S/U or letter grading.

M292. Advanced Human Genetics A: Molecular Aspects. (4) Lecture, three hours. Requisites: Basic biology equivalent to Biostatistics 100A or Statistics 13 and general knowledge equivalent to Ecology and Evolutionary Biology 121, Human Genetics 239A, or Molecular, Cell, and Developmental Biology 12. Reading materials include original research papers and reviews. Letter grading.

282. Topics on Scientific Careers. (2) Lecture, two hours. Limited to graduate students. Covers topics related to scientific careers such as 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 differences between industry, government, teaching-college, and research-college careers. Active participation and oral and written presentations required. 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. Preparation for MS comprehensive examination or PhD qualifying examinations. May be repeated for credit. S/U grading.
School of the Arts and Architecture
2200 Broad Art Center
Box 951620
Los Angeles, CA 90095-1620
Office of Student Services
310-206-3564

Individual Field BA
Learning Outcomes
The Individual Field major has the following learning outcomes:
- Demonstrated understanding of how the research and creative methodologies of different disciplines can interface with and illuminate the understanding of another
- Design of a course of study that shows a deep understanding of how the disparate disciplines are connected
- Demonstrated ability to read in the scholarly discourse and style of different disciplines
- Development of voice in written thesis for an interdisciplinary audience
- Written thesis that demonstrates mastery of diverse fields as a result of research sources and production of scholarly and creative work outside of traditionally defined academic boundaries
- Production of a final paper or creative project that synthesizes and integrates a principal theme or themes common to coursework and diverse fields of knowledge

INDO-EUROPEAN STUDIES
Interdepartmental Program
College of Letters and Science
100 Dodd Hall
Box 951417
Los Angeles, CA 90095-1417

Indo-European Studies
310-825-4171
Brent H. Vine, PhD, Chair

Faculty Committee

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 prime aim of the interdisciplinary Indo-European Studies program is the integral study of Indo-European culture, based on comparative linguistics, archaeology, social structure, and religion. The PhD in Indo-European Studies is offered with two alternative major emphases: Indo-European linguistics and Indo-Iranian or other specialized language area 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 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.
M20. Visible Language: Study of Writing. (5) (Same as Asian 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 Mesopotamia, their evident isolation mask 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 semiotic 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.

M70. Origin of Language. (6) [Same as Communication M70 and Gair M70] Lecture, three hours; discussion, one hour. Theoretical and methodological issues surrounding origin of language. Topics include evolution of man, how language is organized in brain, and science of language, including physiology of speech, phonetics, and comparative reconstruction. 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 a 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) Requisite: course 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 revolve 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. (3) [Same as Linguistics M150.] Lecture, four hours; discussion, one hour (when scheduled). Enrolled requisites: Linguistics 1 or 20. Indo-European languages (ancient and modern), including their relationships, chief characteristics, writing systems, 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 their common sources. Topics include deities 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: Reading and language proficiency in Hittite 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 transilation. 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


M222A-M222B. Vedic. (4–4) [Same as Iranian M222A-M222B and South Asian M222A-M222B.] Lecture, three hours. Preparation: knowledge of Sanskrit equivalent to South Asian 110C. Characteristics of Vedic dialect and readings in Rig-Vedic hymns. Only course M222B may be repeated for credit. S/U or letter grading.


250A-250B. European Archaeology. (4–4) Seminar, three hours. Studies in ancient European archaeologica 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 reconstruction of their common sources. Topics include deities 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 C160. S/U or letter grading.
Programs.
In many cases, more detailed guidelines may be
Official, specific degree requirements are detailed 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.

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 undergraduate students. 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 Cultures and Societies. (5) 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 technology and culture, including social media revolutions, indigenous and non-Western uses of technology, cross-cultural design, digital media literacies, and more. Letter grading.

30. Internet and Society. (5) 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 processes. Baseline skills provided, and students will work on group project for duration of term. May be repeated twice. P/NP grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled 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. Enrolled corequisite: course 188SA. Enrolled 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.

Upper-Division Courses

202. History of Books and Literacy Technologies. (5) Lecture, two hours; discussion, two hours. Exploration of intellectual history of books, writing, and literacy technologies. Discussion of intellectual history 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 (libraries, printing and publishing industries), cultural issues and politics (publishing, censorship, colonialism, globalization), formats and styles (type design, graphic design, aesthetics), and some important historical events in book history. Focus on Western traditions, but not to exclusion of developments in Asia, Near East, Islamic empire, and elsewhere, and questions of cultural diffusion and diversity encouraged. Letter grading.


204. Scholarly Communication and Publishing. (4) Lecture, three and one half hours. Designed for MLIS students. Scholarly communication system is in disarray. It is no longer clear what it means to publish articles and books. Digital distribution is norm, whether reviewed in journals or blogs or by social media. Scholarly communication is becoming more atomized in small units of research objects that can be combined in many ways. Open access publishing, now required by many funding agencies and universities, has altered relationships between authors, readers, publishers, and libraries. Survey of evolving landscape of scholarly communication, providing introduction to publishing, technology, and policy issues such as open access, mass digitization, institutional repositories, compute publications, and altmetrics. Letter grading.

206. Introduction to Economics of Information. (4) Seminar, three and one half hours. Introduction to key concepts, scholars, and studies in economics of information. Topics are authored, published, collated, collected and measure- ment of information, information industries and markets, public goods theories of knowledge and information, information goods and services, intellectual property regimes, information and economic development, information work and occupations, information and organizational processes, productivity, paratax, and sectoral analyses of national and global information economies. Letter grading.


208. Scholarly Communication and Bibliometrics. (4) Lecture, four hours. Preparation: one inferential statistics course. Survey of current theory, method, and empirical studies at intersection of scholarly communication and bibliometrics, seeking to understand flow of ideas through published record, whether in print, electronic form, or other media. Letter grading.

209. Perspectives on Information Societies. (4) Seminar, three hours. Survey of 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 Socio-technological, 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 policy and 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 mass communication tools. Part of 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 way they know, understand, and make meaning of their worlds. How we draw boundaries around culture and community has become increasingly complicated, as culture becomes increasingly multi-cultural. Globalization has element 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, knowledge-claims, stories and artifacts are generated. Concepts are recorded, reproduced, mediated, collected, and appropriated; they are sometimes forged, stolen, or subverted and are often shared, tapestried, exhibited, communicated, collected, re- mixed, or repurposed. Their formats may be oral and written, verbal and pictorial, aural and visual, and in- scriptive and performative. Artifacts are single- medium and multi-medium, intentional and incidental, groove and narrative, scholarly and popular, and analog and digital. They constitute documents, records, data sets, and cultural objects through which information and evidence are authored, published, collated, collected, changed, preserved, and accessed. Examination of these artifacts and their properties, types, and relation- ships: media, formats, genres, materials, states, content, context, subjects, structure, function, 'aesthetics, 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 in- formation and work in diverse societies. Exploration of importan of cultural values that, from grassroots, in de- sign, evaluation, and engagement with information in- stitutions and technologies, ranging from archives and libraries to Internet. Aspects of information society that shape and are shaped by cultural, societal, pro- fessional, 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 professional associations, 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 de- sign, 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 provi- sion of information services in multilingual and multilin- gual society. Understanding role of information institu- tions in promoting cultural diversity and preserving ethnic heritages. S/U or letter grading.

228. Assessment, Measurement, and Evaluation of Information Organizations and Services. (4) Lec- ture, four hours. Introduction to assessment and eval- uation as formal processes of inquiry with individual components. Demonstration of use of evidence gath- ered for planning, decision making, and accountability in information organizations. Review and implementa- tion of various methods appropriate to design of as- sessment and evaluation of services and systems. S/U or letter grading.

229. Conservation M240. (Same as Slavic M229.) Lecture, two hours. Introduction to Slavic and East European bibliographies for the humanities and social sciences. Emphasis to be deter- mined by requirements and background of enrolled students. Topics include relevant library terminology and concepts; survey of languages and transliteration systems. Part of this includes European li- brary materials; Slavic and East European scholarship in the West; relevant reference sources, archival re- sources, and research methods; survey of online data- bases; locating and evaluating information through search engines and in the West; relevant reference sources, archival re- sources, and research methods; survey of online data- bases; locating and evaluating information through search engines and in the West.

233. Records and Information Resources Manage- ment. (4) Lecture, three hours. Introduction to records and information resource management in corporate, government, and other organizational settings, in- cluding analysis, organization, and management of information; policies and procedures; legal and ethical considerations; records management systems; and data preservation and technology and policy development. Letter grading.


236. Approaches to Materialities of Texts and Me- dia. (4) Seminar, two hours; discussion, 90 minutes. Study of factors affecting and influence on information professionals to link users with information. Overview of structure of literature in different fields; in- formation-seeking behavior of user groups; communi- cation with users; development of search strategies using print and electronic sources. Letter grading.

244. 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 in- formation. Topics include information theory, human information processing, information flow among social and occupational groups, and research on information retrieval processes. Letter grading.


251. Seminar: Specialized Literatures. (4) Seminar, four hours. Requisite: course 245. Exposure to major literatures, both in print and online, in three broad areas: (1) arts and humanities, (2) social sci- ences, (3) natural sciences and engineering. Students become familiar with knowledge structures; emphasis on use and use of information sources for scholarly re- search. Letter grading.


259. 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 group project for duration of term. S/U grading.


261. Digital Preservation. (4) Lecture, three and one half hours. Nature of digital media and networking ne- cessitates reformulation of traditional concepts such as authenticity, authorship, and analysis of information systems and metadata that are specifically designed to manage preservation process; new ethical, rights, and collaborative frameworks; and, economic, legal, and social tools with which to manage informa- tion over long term. Introduction to strategies, tech- niques, and standards, as well as continuing chal- lenges related to preserving born-digital/born-net- worked/digitized materials (e.g., electronic records, digital archives, video games, scientific simulations, digital humanities environments, sound and moving image materials, social media and personal digital ar- chives). Implications for digital preservation of new technologies and their applications. Letter grading.

245. Information Access. (4) Lecture, two hours; dis- cussion, one hour. Requisites: courses 200, 260. Pro- vides an introduction to the knowledge organization, classification, and use of information resources. 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 in- formation. Topics include information theory, human information processing, information flow among social and occupational groups, and research on information retrieval processes. Letter grading.


M253. Medical Knowledge Representation. (4) (Same as Bioengineering M253.) Seminar, four hours; outside study, eight hours. Designed for graduate stu- dents. Issues related to medical knowledge represen-
knowledge (conceptual graphs, frame-based models), different data models for representing spatio-temporal information, rule-based implementations, current statistical methods for discovery of knowledge (mining, statistical classifiers, and hierarchical classification), and basic information retrieval. Review of work in constructing ontologies, with focus on problems in implementation. Construction of ontologies, coding schemes, and standardized in- dices/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, communications, and information infrastructures in medical environment. Exposure to basic concepts related to networking at several levels: low-level (TCP/IP, services), medium-level (network topologies), and high-level (distributed computing, Web-based services) implementations. Comparison of medical communication protocols (HL7, DICOM) and current medical information systems (HIS, RIS, PACS). Advances in 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 M227. Lecture, four hours; outside study, eight 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 (Bayes theorem, decision trees). Study 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 statistical 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 secondary sources. Legal research in Law library services and management. Letter grading.


260. Social and Information Services. (4) Lecture, three and one half hours. Social, cultural, and technical practices—formal and informal, 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 schemas, search engines, and management systems in support of curatorship, stewardship, discovery, and use. Letter grading.

262A. Data Curation and Policy. (4) Lecture, three and one half hours. Designed for MLIS students. Continuation of course 262A to address topics of data curation and policy in the 21st century. Data selection and appraisal, archives and repositories, economics of data management, data citation and metrics, technologies for data access and curation, provenance, intellectual property, policy making, and stakeholders in data, and institutional challenges in curation and stewardship of research data. Assessment of data archiving and repositories and group project to curate actual data of UCLA researchers in other academic departments. Letter grading.

269. Seminar: Information Structures. (4) Seminar, four hours. Requisites: course 260, one other information structures course, specializing in areas of descriptive and bibliographic cataloging, subject vocabularies and classifications, and metadata. May be repeated once. Letter grading.

270. Systems and Information. (4) Lecture, four hours. Social, cultural, and technical practices through which information and media infrastructures—networks, systems, technologies, algorithms, interfaces, standards, institutions, bureaucracies, markets—are designed and implemented. Ways in which information infrastructures both shape and are shaped by governmental policy, institutional decision making, socioeconomic trends, labor movements, technical advances, and personal experiences. Functions of and value systems, at levels ranging from local to global. S/U or letter grading.

271. Introduction to Computer Systems and Program Design. (4) Lecture, four hours. Introduction to computer programming and survey of foundational computer science topics, including boolean logic, computer architecture, operating systems, algorithms, networks, and databases. Focus on practical skills for developing and archiving metadata, such as searching, sorting, regular expressions, writing database queries, calling application program interfaces (API), and handling multiple serialisation 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 readings from several disciplines. Extensive use of tech- nology demonstrations and class discussions. Recom- mendation: at least one half hour of computer science coursework. Letter grading.

273. Communities, Information, and Civic Life. (4) Seminar, three and one half hours. Examination of community information services and policies in relation to community vitality. Community information services and practices in support of social and informational networks, community and neighborhood revitalization, and civic engagement. Letter grading.

274. Database Management Systems. (4) Lecture, three hours. Introduction to database management systems, database design, and database applications. Database design and implementation, data models, database management systems, and application development. Letter grading.

275. Community Media and Design. (4) Lecture, two hours; laboratory, two hours. Information professionals, scholars, activists, and information creators/designers/architects focus on questions of culture and community to understand information 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 tools of empowerment rather than tools of manipulation and study of impacts of technology on larger scales through read- ings and introductory sketches. Letter grading.


277. Information Retrieval Systems: User-Centered Designs. (4) Lecture, two hours; discussion, two hours. Requisites: courses 245, 260. Design implica- tions of interaction between users and features of au- tomated information systems and interfaces that are specific to information-seeking process. Emphasis on search strategy and subject access through use of thesaurus and other vocabularies. Letter grading.

278. Information and Visualization. (4) Lecture, two hours; discussion, two hours. Introduction to visualization as a way to make sense of information through visualizations has become in- creasingly prevalent as digital tools have made cre- ation of such visualizations easier and more popular. Many software tools for such work come from within statistical packages; others come from GIS or spatial mapping, while others are more diagrammatic in de- sign. Basic organization of graphical user interfaces and visualization techniques, evaluation of portions of and assumptions about user experience, and other graph- ical features that embody models of information in daily use. What are ways in which visual- ization presents arguments about knowledge? What historical and critical tools can be brought into useful dialogue with contemporary visualizations? Letter grading.

279. 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 special- ized topics such as vocabulary control, file design, in- dexing, classification, text processing, measurement of relevance, evaluation of information systems, and social and policy issues related to information tech- nology and services. Letter grading.


282. Design as Research Method. (4) Seminar, three and one half hours. Theories, principles, and applica- tions of design as methodology, collaboration, and evaluation of user requirements, functionality, values, and system structure. S/U or letter grading.

288. 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 the topic; student continues the course and receive feedback. May be repeated for credit. S/U grading.

289. Seminar: Special Issues in Information Studies. (4) Seminar, three and one half hours. Identifica- tion, analysis, and discussion of 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 methodology. May be repeated for credit. S/U grading.

291A. Doctoral Seminar: Theoretical Traditions in Information Studies. (4) Seminar, four hours. Nature of information—ontological, epistemological, and ethical accounts of information and of information arts and sciences. Conceptions, theories, and models of information; information-related artifacts, agents, contexts of applications, practice, properties, and related phenomena. Interdisciplinary context—subfields of information studies and cognate disciplines. Frameworks for theory construction, such as scales, citation analysis, hermeneutics, phenomenology, semiotics, social epistemology. Letter grading.


298A. 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 anthropological fieldwork methods, archival methodology, bibliographical studies, textual analysis, discourse analysis, historical methods, information visualization, network analysis—bibliometrics, informetrics, scientometrics, social network analysis. 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, exploratory planning and 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.


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 in service 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 Reading. (4) Lecture, 90 minutes; 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. Builds on student understanding of and experience working with communities on development of practical strategies for documenting their activities; managing, collecting, and preserving rare and other historical and cultural materials; and undertaking community-centric collaborative research. Students required to reflect critically on questions about definition, community memory and recordingpractices, motivations, positionality and politics, voice, ethics, advocacy, funding and long-term sustainability, ownership, access and use, technological implementation, and collaborations. 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.

432. Issues and Problems in Preservation of Heritage Materials. (4) Lecture, two hours; demonstra-

438A. Seminar: Advanced Issues in Archival Science—Archival Appraisal. (4) Seminar, four hours. Requisite: course 431. Examination and evaluation of controlling factors of archival appraisal theory; identification and evaluation of distinctive movements in archival appraisal; identification of cultural, political, sociological, and technological movements that can have impact on appraisal methodologies. Letter grading.

438B. Seminar: Advanced Issues in Archival Science—Archival Description and Access Systems. (4) Seminar, four hours. Enforced requisite: course 431. Exploration of history of archival description and access systems in the U.S. and their development since World War II; data collection; access tools and implications of these issues in development of online archival access systems. Letter grading.

439. Seminar: Special Collections. (4) Seminar, two hours; discussion, 90 minutes. Students work with special collections materials on one focused theme or topic and need to think through aspects of exhibit or symposium or collection assessment and then create well-focused and curated agenda for presentation, exhibition, or preservation of materials. Letter grading.


448. Information Literacy Instruction: Theory and Technique. (4) Lecture, four hours. History, theory, methods, and materials of user education/bibliographic instruction in libraries and other information retrieval environments. Examination of variety of user education/bibliographic instruction methods and methodologies, including overview of planning and administration, identification of problems in user education/bibliographic instruction. Applications of methods of teaching use of libraries and information resources. S/U or letter grading.

455. Government Information. (4) Lecture, four hours. Introduction to nature and scope of govern-

457. Health Sciences Librarianship. (4) Lecture, four hours. Health sciences information resources and services, management of health sciences information resources and services, health sciences information policies and standards. Letter grading.


468. Subject Cataloging and Classification. (4) Lecture, four hours. Subject cataloging and classification. S/U or letter grading.

472. Subject Cataloging and Classification. (4) Lecture, four hours. Subject cataloging and classification. S/U or letter grading.


INTEGRATIVE BIOLOGY AND PHYSIOLOGY

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Margaret E. Haberland, PhD
Wayne W. Massey, PhD
Peter M. Narins, PhD
Judith L. Smith, PhD
Allan J. Tobin, PhD (Eleanor I. Leslie Professor Emeritus of Neuroscience)

Associate Professors
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Amy C. Rowat, PhD
Roy Wollman, PhD
Xia Yang, PhD

Assistant Professors
Stephanie M. Correa VanVeen, PhD
Elaine Y. Hsiao, PhD (De Logi Professor of Biological Sciences)

Adjunct Professors
Tama W. Hasson, PhD
Million Muñueta, DVM, PhD
William C. Whiting, PhD

Adjunct Associate Professors
AnTHONY R. FRISICIA, PHD
Janel E. LE BELLE, PHD

Adjunct Assistant Professors
Peter V. Hauser, PhD
Sharmila Venugopal, PhD

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 organ 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, neuro-motor 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 1A, 1B, 14B, 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, 4AA, and 48L, 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 12, and Physics 1A or 5A, with a minimum grade of C in each course and a grade-point average of 2.5 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 189HC, 191H, 192, 193, 195, 196, and 197 are approved courses. Students must complete at least one 200-level course to obtain credit for this major.

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 courses. After completion of all requirements and with the recommendation of the faculty advisor, the undergraduate 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 (M.S.) degree in Physiological Science.

Physiological Science Lower-Division Courses
3. Introduction to Human Physiology. (5) 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. (5) Lecture, three hours; discussion, 30 minutes; 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 conditions as obesity, diabetes, and heart disease. P/NP or letter grading.


7. Science and Food: Physical and Molecular Origins of What We Eat. (5) 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.

12. Introduction to Human Anatomy. (5) Lecture, four hours; laboratory, five hours. Not open to Physiological Science majors. Structural survey of human body, including skeletal, 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.

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 with change in topics. Students must receive a grade of C or better to proceed to next course in series. Students must be in good academic standing and admitted to Honors Program. Honors content noted on transcript. 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 with change in topics. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Introduction to Physiological Science. (2) Lecture, three hours; laboratory, two hours. Introduction to current topics in physiological science by a team of departmental faculty members. 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. Experimental Statistics. (4) Lecture, four hours. Introduction to statistics with focus on computer simulation instead of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. P/NP or letter grading.

CM102. Human Physiological Systems for Bioengineering I. (4) (Same as Bioengineering CM102.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cellular biology. Not open to credit to Physiological Science majors. Broad overview of basic biological activities and organization of human body in system (organ/tissue) to system basis, with particular emphasis on molecular basis. Modeling/simulation of functional aspects of biological system included. Actual demonstration of biomedical instruments, as well as visits to biomedical facilities. Concurrently scheduled with course CM204. Letter grading.


M106. Neurobiology of Bias and Discrimination. (4) (Same as Neuroscience M187 and Psychology M186.) 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, including their relevance to public policy 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 focused primarily on human anatomy. Topics include cardiorespiratory, neural, musculoskeletal, integumentary, and immune systems. Letter grading.
reproductive, nervous, and skeletal-muscular systems, with introduction to biomechanical principles. Letter grading.

108. Head and Neck Anatomy: Evolutionary, Biomechanical, Developmental, and Clinical Approach. (4) Lecture, three hours; laboratory, two hours. Requisites: course 107. Strongly recommended course 153. Prior to first meeting, students must complete Bloodborne Pathogens training course through UCLA Environment, Health and Safety. Introduction to head and neck anatomy with focus on vasculature, innervation, and musculature to put them in three-dimensional context. Coverage of evolutionary, development, physiologic, and biomechanical aspects of head and neck, including foramina, sinuses, and musculature of other vertebral skulls, dental evolution and mechanics, respiratory anatomy, and developmental origins of head structures. 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 or 6B. Students must receive grade of C or better to proceed to next course in series. Introduction to principles of muscular and neural physiology, including function of membrane excitable membranes, ronals, sensory motor regulation, special senses, cortical functions, and neuronal plasticity. 111B. Requisites: course 111A, Chemistry 14D or 30B. Students must receive grade of C or better to proceed to next course in series. Introduction to principles of systems physiology, including endocrinology, transport physiology, and cardiovascular and pulmonary physiology.

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 broad range of renal diseases and their molecular mechanisms. Introduction to research methods typically employed in studies of kidney and exploration of state-of-art research on kidney repair and regeneration.

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. Development of drugs, target-based drugs, and disease mechanisms, 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, sleep 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. Requisites: courses 111A, 111B, Life Sciences 2 or 7C, Physics 1A, 1B, and 1C, or 5A, SB, and 5C, or 6A, 6B, and 6C. Develops in biotechnology and their impact on diagnosis and treatment of disease; basic engineering principles, and designs that lend themselves to deciphering physiological states, and application of new technologies in clinical practice and biomedical research.

125. Molecular Systems Biology. (5) Lecture, three hours; discussion, one hour. Requisites: Chemistry 153A, Life Sciences 2 and 3, or 7A, 7B, and 7C. 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, and systems modeling integrated with discussions of their applications in disease-related research. Review of recent literature to gain overall perspectives about new science of systems biology.

C126. Biological Clocks. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A and 111B, or M180A and M180B. Most organisms, including humans, have each section of their circadian clock and behavior. In many cases these rhythms are generated from 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 C226. Letter grading.


128. Me, Myself, and Microbes: The Microbiome in Health and Disease. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course 107 or Chemistry 153A, Life Sciences 2 and 3, or 7A, 7B, and 7C. Exploration of human microbiome in health and disease, drawing upon basic properties for microbial communities, intersections with immunology, metabolism, and neurobiology.

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 of sex and gender, and interface between biological factors and effects of gendered environments. Topics include evolution of sex chromosomes, molecular and environmental determination of gonadal type, dosage compensation, gonadal steroid hormone effects on tissues, physiology of reproduction as it applies to sex differences, interaction of genetic and environmental factors in determination of two sexes, sexual differentiation and gendered environments and their influence on physiology, and policies of financial support for research of sex and gender differences in disease. Concurrently scheduled with course C228. Letter grading.

M135. Dynamical Systems Modeling of Physiological Processes. (5) Formerly numbered 135.3. (Same as Neuroscience M135.) 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.


M140. Hormones and Behavior in Humans and Animals. (4) (Same as Psychology M128R and Society and Genetics M140.) Lecture, three hours; discussion, one hour. Examination of hormones, and physiology and genetics involved in hormonal processes and functions, and how they influence mammalian levels, environmental stimuli, and behavior. Sexual behavior, pregnancy, and lactation, parent behavior, development and emigration, stress, social behavior, dominance relationships, aggression, chemical communication, and reproductive suppression. Critique of primary literature on behavioral endocrinology about humans and other species. Consideration of spectrum of noninvasive to highly invasive endocrine sampling methods, and which types of questions can be answered in laboratory and field, as well as ethics of hormonal studies and their implications for humans and other species. Letter grading.

C144. Neural Control of Physiological Systems. (4) Lecture, four hours. Requisite: course 111B or M180B. Role of central nervous system in control of respiration, circulation, sexual function, and bladder control. Most of material for each section to be developed by combination of lecture and open discussion. Concurrently scheduled with course C244. Letter grading.

M145. Neural Mechanisms Controlling Movement. (5) (Same as Neuroscience M145.) Lecture, four hours. Requisite: course 111A or M180A or Neurosci ence M101A. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.

146. Principles of Nervous System Development. (5) Lecture, three hours; discussion, 90 minutes. Requisites: courses 107 or (Neuroscience 102) and 111A or 111B, or M180A, Molecular, Cell, and Developmental Biology M175A, Neurosciences M101A, or Psychology M117A. Examination of construction of vertebrate nervous system as series of integrated steps beginning with several embryonic cells culminating as complex highly ordered system. Topics include neuroscience, regionalization, neurogenesis, migration, axonal outgrowth, and synapse formation. Letter grading.

147. Neurobiology of Learning and Memory. (5) Lecture, three hours; discussion, one hour. Requisite: course 111A or M180A. Changes in central nervous system that accompany learning, with emphasis on cellular mechanisms.


C152. Musculoskeletal Anatomy, Physiology, and Biomechanics. (5) Lecture, three hours. Requisite: course 111A. Anthropological, physiological, and mechanical characteristics of cartilaginous and bony tissues examined in normal and abnormal stress situations. Connective tissue growth processes, normal
178. Quantitative Regulatory Biology and Signal Transduction. (4) Lecture, three hours. Requisites: Life Sciences 2, or 7A, 7B, and 30A or 30B. Physical properties of animal signals and physiological mechanisms underlying their generation. Topics include: chemical signaling in cells, molecular and cellular mechanisms underlying the generation of complex behavior, and the role of the nervous system in intercellular communication. Letter grading.

M102A/M102B/M102C. Neuroscience: From Molecules to Mind. (5–5–5) Same as Molecular, Cell, and Developmental Biology M175A and M175B. Structure and function of the nervous system, with emphasis on the nervous system as a component of the body's sensory and motor systems. Topics include brain structure and function in health and disease, with emphasis on neuroscience research and on current topics in neuroscience. Letter grading.

M103A/M103B/M103C. From Cell to Circuit. (4) Lecture, two hours. Requisites: courses 111A and 111B or (Neuroscience M101A and M101B), Introduction to neural systems and circuits, with emphasis on the nervous system as a component of the body's sensory and motor systems. Topics include brain structure and function in health and disease, with emphasis on neuroscience research and on current topics in neuroscience. Letter grading.

M187A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. limited to junior/senior USIE facilitators. Introduction to neurons and their interconnections, with emphasis on the nervous system as a component of the body's sensory and motor systems. Topics include brain structure and function in health and disease, with emphasis on neuroscience research and on current topics in neuroscience. Letter grading.

M188A. 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, with emphasis on discipline-specific pre-requisites and the role of the nervous system as a component of the body's sensory and motor systems. Topics include brain structure and function in health and disease, with emphasis on neuroscience research and on current topics in neuroscience. Letter grading.
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. 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; additional time must be arranged. Requisite: course 111A. Focused reading in single subdiscipline of physiology, with focus on critical analysis of primary research literature. Emphasis on understanding methods of research in physiological systems, interpretation of experimental results, and how they bear on concepts of physiology. Development of culminating paper. May be repeated for credit. Letter grading.

191H. Honors Seminars: Current Topics in Physiology. (4) Seminar, four hours. Requisites or corequisites: courses 198A, 198B. Limited to neuroscience and physiological science honors program students. Designed for juniors/seniors and required of departmental honors students. Presentation of primary paper from physiology literature. Reading and critical evaluation of current research literature. Presentation of student laboratory research hypothesis, approach, and result in form of oral and poster presentations. 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 re-search of current research under guidance of faculty mentor. May be repeated for credit. Letter grading.

194B. Research Group Seminars: Physiological Science. (1) Seminar, two hours. Corequisite: course 198A or 198B or 198C or 199. Limited to juniors/seniors. Involved in weekly laboratory research meetings to encourage student participation in research and to stimulate progress in specific research areas. Discussion of specific 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 supervising faculty member required. P/NP 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 for students under guidance of faculty mentor. May be repeated for credit; consult department. Individual contract required. P/NP grading.

198A. Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisites: courses 111A, 111B, 193 (may be taken concurrently). Limited to junior/senior physiological science honors program students. Directed independent research for departmental honors students. Individual contract with faculty member, involving definition of research topic and extensive reading and research in field of proposed honors thesis. May be repeated for credit. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

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. Continuing 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. Requisite: course 198B. Corequisite: course 193. Limited to junior/senior physiological science honors program students. Additional course to provide further research opportunities for departmental honors students. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Physiological Science. (2 to 4) Tutorial, 12 hours. Requisites: courses 111A, 111B, 193 (may be taken concurrently). Limited to Physiological Science Majors with control of sleep in homeostatic regulation of sleep. How our sleep needs shaped by our evolutionary history, age, and gender. Latest insights into function of sleep, critical role of sleep plays in memory consolidation, 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 of human physiology. Students choose project or paper and culminating project and presentation of course C126 is highly recommended. Concurrently scheduled with course CM123. Letter grading.

C225. Biological Clocks. (4) 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 regulation of sleep. How homeostatic regulation of sleep. How our sleep needs shaped by our evolutionary history, age, and gender. Latest insights into function of sleep, critical role of sleep plays in memory consolidation, 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 of human physiology. Students choose project or paper and culminating project and presentation of course C126 is highly recommended. Concurrently scheduled 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. 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's circadian system. Concurrently scheduled with course C126. Letter grading.

C227. Neuroendocrinology of Reproduction. (4) Lecture, four 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. 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's circadian system. Concurrently scheduled with course C127. Letter grading.

C230. Sex Differences in Physiology and Disease. (4) Lecture, four hours. Requisites: course 111B. Life Sciences 1A, 7B, 7C. Investigation of biological origins (system differences in physiology, behavior) and susceptibility to disease, including history of development of concepts of sex differences in physiology and disease. Investigation of biological origins (system differences in physiology, behavior) and susceptibility to disease, including history of development of concepts of sex differences in physiology and disease. Investigation of biological origins (system differences in physiology, behavior) and susceptibility to disease, including history of development of concepts of sex differences in physiology and disease. Investigation of biological origins (system differences in physiology, behavior) and susceptibility to disease, including history of development of concepts of sex differences in physiology and disease. Investigation of biological origins (system differences in physiology, behavior) and susceptibility to disease, including history of development of concepts of sex differences in physiology and disease. Investigation of biological origins (system differences in physiology, behavior) and susceptibility to disease, including history of development of concepts of sex differences in physiology and disease. Investigation of biological origins (system differences in physiology, behavior) and susceptibility to disease, including history of development of concepts of sex differences in physiology and disease. Investigation of biological origins (system differences in physiology, behavior) and susceptibility to disease, including history of development of concepts of sex differences in physiology and disease. Investigation of biological origins (system differences in physiology, behavior) and susceptibility to disease, including history of development of concepts of sex differences in physiology and disease.
235. Advanced Dynamical Systems Modeling of Physiological Processes. (5) 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 functioning. 241. Neural Plasticity and Repair. (4) Lecture, four hours. Preparation: basic neuroscience background. Progress in basic and clinical neuroscience provides new insight to understand mechanisms of cell repair and strategies to promote neural healing. Focus on physiological, molecular, and anatomical basis governing repair processes in brain and spinal cord and their clinical implications. 242A. Integrative Physiology. (4) Lecture, four hours. Requisite: course 111B or M180B. Role of central nervous system in control of respiration, circulation, sexual function, and bladder control. Material for each class will be taken from recent literature of section of lecture and open discussion. Concurrently scheduled with course C144. Letter grading. 245. Neural Mechanisms Controlling Movement. (5) Lecture, four hours. Requisite: course 111A or M180A or Neuroscience M101A. Examination of central nervous system organization required for production of complex movements such as locomotion, masturbation, and swallowing. Letter grading. 250A. Muscle Dynamics. (4) Lecture, four hours; integrated study of electrical and dynamic parameters of muscle-action, including topics in length-tension and force-velocity interrelationships; critical analysis of electromyographic and digital computer techniques. Letter grading. 250B. Musculoskeletal Mechanics. (5) Lecture, three hours. Requisite: course 107, Physics 6A. Introduction to biomechanical analysis of human musculoskeletal system. Examination of cinematographic, force platform, and digital computer techniques to characterize and evaluate kinematic and kinetic components of movement. Topics include biostatics, bio-dynamics, and bio-mechanics. Concurrently scheduled with course C150. Letter grading. 252. Musculoskeletal Anatomy, Physiology, and Biomechanics. (5) Lecture, three hours. Requisite: course 111A. Anatomical, physiological, and mechanical characteristics of cartilaginous, fibrous, and bony tissues examined in normal and abnormal stress situations. Connective tissue growth processes, normal physiology, and repair mechanisms analyzed in conjunction with musculoskeletal injuries and effects of exercise. Concurrently scheduled with course C152. 255M Seminar: Neural and Behavioral Endocrinology. (2) Same as Neurobiology M255 and Psychology M294.) Seminar, one hour; discussion, one hour. Topics include endocrinological, neurochemical, and behavioral perspectives on the neuroendocrine system. Hypothalamic/hypophysial interactions, both hormonal and neural. Structure and function of the hypothalamus. Hormonal control of reproductive and other behaviors. Sensory characterization of brain behavior. Stress: hormonal, behavioral, and neural aspects. Aging of reproductive behaviors and function. Letter grading. 260. Neuromuscular Factors in Movement Regulation. (4) Lecture, four hours. Requisite: course 138. Interaction of neural and muscular factors in regulation of muscle fiber properties and importance of these properties in the control of movement regulation. S/U or letter grading. 263. Neuronal Mechanisms Controlling Rhythmic Movements. (4) Lecture, four hours. Requisite: course M145. Advanced topics on brainstem mechanisms responsible for controlling cyclic and stereotypic movements such as mastication and locomotion. Emphasis on cellular neurophysiology and interactions between neuronal networks. Introduction to primary literature and analytical techniques used in these areas. Students expected to critically evaluate data and conclusions drawn. S/U or letter grading. 270A-270B. Modern Concepts in Physiology. (4–4) Lecture, two hours; discussion, two hours. Study and evaluation of research literature, emphasizing foundations of modern techniques in physiological research, analysis of research design. Letter grading. 270A. Highly recommended requisite or corequisite: 111A. Foundation for experimental study of principles of muscular and neural physiology and cellular and systems neuroscience, including factors controlling membrane excitability, neuronal circuits, sensory-motor regulation, special senses, cortical function, and neural plasticity. Highly recommended requisite or corequisite: 111B. Foundation for experimental study of principles of systems physiology, including endocrinology, transport physiology, and neural, cardiovascular, and pulmonary physiology. 272. Neuroimaging and Brain Mapping. (4) (Same as Neuroscience CM272 and Psychology M213.) Lecture, three hours; requisites: course M202, Neuroscience M201. Theoretical methods, concepts, and limitations of neuroimaging. Techniques, biological questions, and results. Brain structure, brain function, and their relationship described with regard to imaging techniques. 279A-279B. Introduction to Integrative Biology and Physiology. (2–3) Seminar, one hour. Requisite: course 111A or M180A or Neuroscience M101A. Examination of central nervous system organization required for production of complex movements such as locomotion, masturbation, and swallowing. Letter grading. 289A-289B. Introduction to Integrative Biology and Physiology. (2–3) Seminar, one hour. Requisite: course 111A or M180A or Neuroscience M101A. Examination of central nervous system organization required for production of complex movements such as locomotion, masturbation, and swallowing. Letter grading. 291A-291B-291C. Seminars: Cardiovascular Function and Adaptation. (2 to 4 each) Seminar, two to four hours. Selected topics on cardiovascular function and adaptation. Students required to present two-hour seminar lecture. S/U or letter grading. 292. Evolution and Development of Auditory Systems. (2 or 4) Seminar, two hours. Discussion of specific topics related to evolution, embryology, morphogenesis, cytodifferentiation, and onset of function of auditory system, with special attention to centrifugal pathways. Emphasis on primary literature sources as well as current methodological approaches. Two-hour seminar presentation required for 2 units; seminar paper and two-hour seminar presentation required for 4 units. S/U or letter grading. 293A-293B-293C. Seminars: Musculoskeletal Function and Adaptation. (2 to 4 each) Seminar, one hour. Requisite: courses 136, 260. Selected topics on musculoskeletal function, adaptation, development of movement, metabolic aspects of exercise, and mechanisms of connective tissue. Students required to present two-hour seminar. S/U or letter grading. 294. Recent Advances in Neurophysiology. (1) Seminar, one hour. Requisite: Life Sciences 2 or undergraduate degree in science. Critical examination and discussion of recent data and publications that focus on synaptic function. Student presentations, readings, and participation in discussions required. S/U grading. 295A-295B-295C. Seminars: Cellular Neuroscience. (2 to 4 each) Seminar, two to four hours. Requisite: seminar attendance. Selected topics in sensory transduction, cellular integration, synaptic processing, central nervous system function, and learning. Students required to present two-hour seminar. S/U or letter grading. 296. Research Seminar: Physiological Science. (2) Review of literature, discussion of original research, and analysis of current topics in physiological science. May not be applied toward MS or PHD course requirements. May not be repeated as necessary. S/U grading. 297. 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 as necessary. S/U grading. 298. Seminar: Nervous System Development. (1 to 2) Seminar, two hours. Selected topics in development mental neurobiology, such as neuronal migration, axonal guidance, gene expression, and synaptogenesis. Weekly primary literature student presentations. One-hour seminar presentation on assigned weekly reading required of all students; students enrolled for 2 units must also complete written analysis of additional primary literature papers. May be repeated for credit. 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 or grading. 495. In-Service Practicum for Teaching Assistants in Physiology. (1 to 4) Seminar, to be arranged. Required of all teaching assistants. Supervised practicum in teaching laboratory courses in physiological science; material preparation and use of teaching aids. May not be applied toward degree requirements. S/U or 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 or grading. 596. Individual Studies for Graduate Students. (2 to 8) Tutorial, to be arranged. To enroll for letter grade, petition signed by faculty sponsor, graduate adviser, and graduate affairs committee chair must be submitted prior to end of second week of class. Eight units may be applied toward degree requirements for MS or PHD degree. Students enrolled in two different 4-unit 596 courses in different laboratories under supervision of different mentors. Term paper required for letter grading. S/U or letter grading. 597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 16) Tutorial, to be arranged with faculty member serving as student’s comprehensive examination chair or PhD committee chair. May not be applied toward MS or PhD course requirements. May be repeated as necessary. S/U grading. 598. Research for and Preparation of MS Thesis. (2 to 16) Tutorial, to be arranged with faculty member serving as student’s thesis committee chair. May not be applied toward MS course requirements. May be repeated as necessary. S/U grading. 599. Research for and/or Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. May not be applied toward PhD course requirements. May be repeated as necessary. S/U grading. INTERNATIONAL AND AREA STUDIES Interdepartmental Program College of Letters and Science 10256 Bunche Hall Box 95147 Los Angeles, CA 90095-1487 International and Area Studies 310-206-6571 Program e-mail Michael F. Thies, PhD, Chair Faculty Committee Jennifer J. Chun, PhD (Asian American Studies) Robin L. H. Derby, PhD (History) Nile S. Green, PhD (History) Patricia C. Heathcote, PhD (Sociology) Namhee Lee, PhD (Asian Languages and Cultures) Adam D. Moore, PhD (Geography)
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.

Required:

• Three courses from Ethnomusicology 136A, M136B, M136C
• Three courses from Comparative Politics, International Relations, International Politics, M50, M50CW, or Portuguese 40A
• Three courses from Anthropology 3, Comparative Literature M148, and (1) 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

Premajor

Incoming freshmen and transfer students may be admitted as African and Middle Eastern Studies premajors on acceptance to UCLA. Premajors must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students

Transfer applicants to the African and Middle Eastern Studies premajors 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, Economics 111, 112, 121, 122, Environment 134, Geography M128, 140, 148, International Development Studies
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.

**Premajor**

Incoming freshmen 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 25A, History 9A, 9C, 9E, 11B (or 11B4), 97C, 97M, 97N, International and Area Studies 31, 33, Japanese 50, 70, Korean 50, M60, South Asian M60, Southeast Asian M60, or 90. (2) 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., Chinese 6 or 6A, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, Korean 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, 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: Ancient Near East 124, M130, IS05, C165, Arabic 130, 132, 150, Armenian 130, 131, C155, Art History M110A, M110B, 119A, French 160, Hebrew 130, 135, Iranian M110A, M110B, M110C, 120, 131, 140, Islamic Studies M110, 130, Jewish Studies 140A, 140B, 143, M150A, 150B, M151A, M151B, M182A, M182B, M182C, M184B, Turkic Languages 170, World Arts and Cultures C139 or social sciences group 2: Geography 114, History M103A, M103B, 105A, 105B, 107A, 107D, 108A, 108B, 111A, 111B, 116A, 116B, 166A, 168A.
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. 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) two area studies courses from Central and Eastern Europe Studies 91, Comparative Literature 1C, 2C, 4CW, Dutch 10, English 88C, French 12, 14 (or 14W), 41, 60, German 50B, 57, 59, 61A through 61D, 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 90BW), 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, 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., 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 premajors 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 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.


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

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

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 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 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.

Preparation for the Major
Required: (1) International and Area Studies 1, (2) one area studies course from History 8A (or 8AH), 8B, 8C, 97E, International and Area Studies 50, Portuguese 40B, 46, Spanish 44, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or SOIR), Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 20W or 40W), Ethnomusicology 5, MDS, Geography 3, History 28, 22, World Arts and Cultures 20, 33, and (5) two area-related foreign language sequences through the intermediate level (e.g., Portuguese 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.

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.

Area Studies: (1) Three humanities and arts group 1 courses from Art History C142A, C142B, 144, Comparative Literature 177, Ethnomusicology M108A, 108B, 113, 161K (2 units), Film and Television 106C, Music M131, Portuguese 130A, 130B, 141B, 142A, 142B, Spanish 120, World Arts and Cultures C139; (2) three social sciences group 1 courses from African American Studies M154C, M178, Anthropology 161, 162, Chicana and Chicano Studies 111, 117, M132, CH1, 143, 151, 169, Community Health Sciences 132, Gender Studies M147C, Geography 114, 181, 182A, 182B, History 159, 160A, 160B, 162A, Labor and Workplace Studies M125, M144, Political Science 124C, 154A, 154B, Public Health M106, Sociology 186, 191J; and (3) one additional elective course selected from either item 1 or 2 above.


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 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: Art History CM139A, C139B, C141, Chicana and Chicano Studies M150D, M100E, 109, 142, Ethnomusicology M116, Portuguese 143A or social sciences group 2: Anthropology 114P, 114Q, Chicana and Chicano Studies M119, M159B, 184, M187, History 157B.

International and Area Studies / 515

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.

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 those courses, (2) have a 3.5 grade-point average in all upper-division coursework for the major, (3) 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.

Highest honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.75 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an exceptional honors thesis (approximately 35 to 50 pages) determined to be of highest 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 coursework in 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 mi-
nor 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, 4, 6, History 28, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students must substitute one area studies preparation course (from Afrikaans 40, Art History 28, Ethnomusicology 208, French 60, History 108, 97J, 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 Art History C169A, C169B, Ethnomusicology 136A, 136B, 161E (must be taken twice to equal one 4-unit course), French 121, 142, (2) two social sciences group 1 courses from Anthropology 135, M166Q, Geography 122, 135, History 1648 through 164E, 166B, 167A, 167C, 168E, 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 114, 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 coursework related to the region of Asia. 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 coursework related to the history, culture, and society of Europe. Students must have an overall grade-point average of 2.0 or better in the minor.
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.

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.

Southeast Asian Studies Minor

The Southeast Asian Studies minor is designed for students who wish to augment their major with a concerted study of the history, culture, and society of Southeast Asia—Brunei, Cambodia, East Timor, Indonesia, Laos, Malaysia, Myanmar (Burma), Philippines, Singapore, Thailand, and Vietnam—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 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, M25, Geography 4, 6, History 28, 2B, Political Science 50 (or 5OR), Sociology 1, World Arts and Cultures 20. 33. Students may substitute one area studies preparation course (from Art History 31, History 9E, 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 art groups 1 courses from Ethnomusicology 161B (must be taken twice to equal one 4-unit course), Southeast Asian 130, 135, 140, 157, Vietnamese CM155, 180B, (2) two social sciences group 1 courses from Asian American Studies M71D, 17E, Gender Studies M164A, History 176B, 176C, 176E, 177A, 177B, 185B, 185C, Political Science M158, and (3) additional elective course selected from the group 1 list 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: Art History 156, Asian American Studies 111, 113, 121, 122B, 133, 134, History M52, 176A, or Vietnamese 180A.

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.

Study Abroad

All majors and minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year). Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study Program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

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 aspects of world we live in and to introduce set of contemporary issues and challenges that cross borders and affect every region of the world. P/NP or letter grading.

M5A-M5B-M5C. Elementary Nahuatl. (4-4-4) (Same as Chicana and Chicano Studies M5A-M5B-M5C and Indigenous Languages of the Americas 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 Nahua language, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

M6A-M6B-M6C. Elementary Amharic. (4-4-4) (Same as African American Studies M6A-M6B-M6C.) Lecture, five hours. Course M6A is required to M6B, which is enforced requisite to M6C. Introduction to Amharic, Semitic language that is official language of Ethiopia. Coverage of basic Amharic grammar, with equal emphasis on reading, writing, conversation, and comprehension. 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 required to M7B, which is enforced 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 key international events through active learning, designed to develop understanding of international issues and diverse skill set, including persuasive speaking, critical thinking, research skills, problem solving, teamwork, experiential writing, and leadership skills. May be repeated for credit without limitation. P/NP grading.

M15A-M15B-M15C. Intermediate Nahuatl. (4-4-4) (Same as Chicana and Chicano Studies M15A-M15B-M15C and Indigenous Languages of the Americas M15A-M15B-M15C.) Lecture, four hours. Enforced requisite courses: M5A, M5B, M5C. Course M15A is enforced requisite to M15B, which is enforced requisite to M15C. Taught primarily in Nahuatl. Examination of Nahautl (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.

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.

31. Introduction to Southeast Asia. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey 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 survey designed as introduction to modern East Asia. P/NP or letter grading.

50. Introduction to Latin America. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey designed as introduction to modern Latin America. P/NP or letter 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. Hands-on experiential programs 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.

111A. Art of Citizen Diplomacy. (2) Seminar, two hours. Intentions for students planning to participate in international study abroad program during upcoming summer. Practical tools in order to effectively bridge between cultures. Letter grading.

111B. Introduction to Global Learning Abroad. (2) Seminar, two hours. Intended for students interested in planning to participate in international study abroad program during upcoming summer. Practical tools in order to effectively bridge between cultures. Letter grading.

111C. Engaging Global Cultures: Reflecting on Fieldwork. (2) Seminar, two hours. Academic venue for students who have attended study abroad programs to reflect on and share their experiences in order to enhance benefit of programs they participated. Practical tools in active listening and applying knowledge acquired during international travel. Students analyze complex layers of intercultural communication, world affairs, and conflict. Post-study abroad follow-up activities, including presentations on campus and in community, other on-campus education activities, and writing of journal article. Letter grading.

198A-198B-198C. Honors Research 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.

199. Directed Research in International and Area Studies. (1-4) 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 Senior Research Seminars: International and Area Studies. (4) Seminar, three hours. Enforced requisite: course 1. Limited to senior international and area studies majors. Organized on topics basis with readings, discussions, papers, and development of culminating project. May not be repeated for credit. Letter grading.

193. Colloquia and Speaker Series. (1) Seminar, two hours. Introduction to current scholarship in field of international and area studies. Attendance at selected presentations with required response paper. May be repeated for credit. P/NP or letter grading.

195CE. Community or Corporate Internships in International and Area 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 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 applied toward major requirements. May be repeated for credit. P/NP or letter grading.

198A-198B-198C. Honors Research in International and Area Studies. (4) Tutorial, to be arranged. Limited to international and area studies honors program students. May be repeated for credit. Individual contract required. Letter grading. 198A. Supervised individual research or investigation under guidance of faculty mentor. Development and planning of honors thesis. 198B. Enforced requisite: course 198A. Supervised individual research or investigation under guidance of faculty mentor. Continued development and refinement of honors thesis. 198C. Enforced requisite: course 198B. Final drafting and submission of completed honors thesis. Culminating paper of 35 to 50 pages required.

199. Directed Research in International and Area Studies. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. May be applied toward requirements via petition. 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/G grading.

INTERNATIONAL DEVELOPMENT STUDIES

Interdepartmental Program College of Letters and Science
10274 Bunche Hall
Box 951487
Los Angeles, CA 90095-1487

International Development Studies 310-825-5187
Program e-mail
Michael F. Lofchie, PhD, Chair

Faculty Committee

Faculty Committee
Victor Agadjanian, PhD (Sociology)
Andrew Apted, PhD (Anthropology)
Judith A. Carney, PhD (Environment and Sustainability, Geography)
Jennifer J. Chun, PhD (Asian American Studies)
Kevan K. Harris, PhD (Sociology)
Patrick C. Heuveline, PhD (Sociology)
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)
Ananya Roy, PhD (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 historical, political, economic, and cultural forces; and to transform these courses into robust and informed discourse.

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; and 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 nonlanguage 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.
Preparation for the Major

Required: (1) International Development Studies 1; (2) one course from Economics 1, 2, Geography 4; (3) one statistics course from Economics 41, Political Science 6, 6R, 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, (e) History 8A, 8B, 8C, 9A, 9D, 9E, 108, 108W, 118, 22, International and Area Studies 1, 31, 50, (f) Political Science 20, 50, 50R, (g) Sociology 1; 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 sociocultural anthropology, cultural or economic geography, cultural area studies, world history, comparative 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, and 130; 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) International Development Studies 110, M120, 130, 191; (2) one research methodology course from Anthropology 138P, Asian American Studies 103, 104A, 105, M108, C142A, 187A, 191A, Chicano and Chicano Studies M119, 123, 129, Economics 103, Education C126, Geography 163, Political Science 170A, Sociology 106A, 110, 113, Statistics 112, Urban Planning M122; (3) three social and critical theory courses, each from a different department, from Anthropology 130, 140, 143, 147, Economics 111, 112, Environment M132, M133, M161, Gender Studies 102, 103, 168, Geography 110, M115, M128, 132, 133, 140, 142, 148, 155, Political Science 122A, M122B, 124A, ISO 150, 167D, 168, Sociology 101, M115, 116, 182, 183, 191D, Urban Planning 121, M160, CM166; (4) 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:

- Eastern Europe and West Central Asia: Anthropology 163Q, Central and East European Studies 125, Czech 155, Gender Studies M127, History 107C, 107E, 120A through 120D, 127B, 127C, Political Science 128B, 156A, Romanian 152, Russian 120, 121, 122, 125, 126, M127, 131, Serbian/Croatian 154.


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 CPA in courses applied toward the major (including courses 198A, 198B, 198C) and an overall CPA of 3.0.

Highest honors are awarded to students who complete the major (including courses 198A, 198B, 198C) with a 3.75 CPA 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 by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

International Development Studies

Lower-Division Courses

1. Introduction to International Development Studies. (5) Lecture, three hours; discussion, one hour. Exploration of historical and contemporary context of socioeconomic inequalities between Global South and Global North. Focus on cultural, political, and economic realities of developing world, which includes countries of Asia, eastern Europe, Africa, Middle East, and Latin America. P/NP or letter grading.

2. 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.

3. 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 supplementary 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.

4. 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.

5. 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. Economic Development and Culture Change. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Broad introduction to theoretical traditions in development studies, with focus on interactions between states, markets, and cultural value systems, with selected case studies in developing nations. Letter grading.

M120. Political Economy of Development. (4) (Same as Political Science M167C) Lecture, three or four hours; discussion, one hour (when scheduled). 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 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. Letter grading.
130. Economics of Developing Countries. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Economic analysis of developing countries. Issues underlying causes of underdevelopment and process of development. Topics include population growth, poverty, inequality, inflation, fiscal trade and monetary policy, and alternative development strategies. Letter grading.

160. Selected Topics in International Development Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more topics related to international development. May be repeated for credit with topic change. P/NP or letter grading.

188. Special Courses in International Development Studies. (4) Seminar, three hours. Program-sponsored experimental or temporary courses on selected contemporary topics in international development taught by visiting instructors or affiliated 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 supplementary 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.

190HC. 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 supplementary 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 International Development 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 international development studies courses. Students assist in preparation and presentation of materials and development of innovative programs with guidance of faculty members. Consult academic counselor for further information. May not be applied toward major requirements. May be repeated for credit. P/NP grading.

193. Colloquia and Speaker Series. (1) Seminar, two hours. Introduction to current scholarship in field of international development studies or of topics related to guest speaker series. May be repeated for credit. P/NP grading.

194. Research Group Seminar. (1) Seminar, two hours. Designed to encourage participation and stimulate progress in specific research areas for undergraduate students who are part of departmental research group or internship. Discussion of research methods and current literature in field of international development studies or of research of faulty members or students. May be repeated for credit. P/NP grading.

195. Community or Corporate Internship in International Development Studies. (4) Tutorial, to be arranged; fieldwork, 10 to 12 hours. Limited to juniors/seniors. Supervised internship in corporate, community, governmental, or nonprofit setting coordinated by International Development Studies. Additional supervision to be provided by internship site supervisor. Students meet with advisor and provide final reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.

198A-198B-198C. Honors Research in International Development Studies. (4-4-4) Tutorial, to be arranged. Preparation: 3.5 grade-point average in courses for major. Formal application to honors program. Requisites: courses 110, M120, 130. Limited to junior/senior International Development Studies majors. May be repeated for credit. Individual contract required. 198A. Research, discussion, and planning of honors thesis under direct supervision of faculty mentor. Letter grading. 198B. Enforced requisite; course 198A. Research, discussion, and planning of honors thesis under direct supervision of faculty mentor. In Progress grading. 198C. Enforced requisite; course 198B. Final drafting and submission of honors thesis under direct supervision of faculty mentor. Letter grading.

199. Directed Research in International Development Studies. (4) Tutorial, to be arranged. Limited to junior/senior International Development Studies majors. Supervised intensive directed research program in which students conduct interdisciplinary research under guidance of faculty mentor. Culuminating paper required. May be applied toward major via petition. May not be repeated. 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.

INTERNATIONAL MIGRATION STUDIES

Interdisciplinary Minor
College of Letters and Science

10389B Bunche Hall
Box 951487
Los Angeles, CA 90095-1487

International Migration Studies
Roger Waldinger, PhD, Chair

Faculty Committee
Leisy J. Abrego, PhD (Chicana and Chicano Studies) Rubén Hernández-León, PhD (Sociology) Hiroshi Motomura, JD (Law) Marjorie Faulstich Orellana, PhD (Education) Roger Waldinger, PhD (Sociology)

Scope and Objectives

The minor in International Migration Studies orients students toward comparative, historical, and international dimensions, providing structured exposure to the relevant scholarship.

International migration is a global phenomenon—comprising broad and deep linkages within and between the developed and developing worlds. As the issues surrounding global migration processes cross manifold intellectual boundaries, understanding demands insights and methods from a broad array of disciplines. Standard models in economics or demography offer powerful explanations of why people migrate and how migration might have an effect on wages and employment in both sending and receiving societies. However, migration is ultimately about the lived experience of people—those moving and those they encounter. Understanding migrants’ emergent identities and the problems of belonging and acceptance that migration generates requires attention, both to the micro level, as well as to the specific historical and cultural contexts surrounding both migration flows and societal responses. The minor in International Migration Studies aims to build an appreciation of international migration and its dilemmas as it draws on the insights generated from a broad array of disciplines and methodological approaches needed for grappling with a vast social and intellectual phenomenon.

Undergraduate Study

International Migration Studies Minor

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, M164SL, C179, Economics 103, 151, English 134, German 175, History 145A, 146B, 146C, Political Science 143C, M181B, Psychology 129C, 133C, Slavic CM114, 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. 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 Courses

155. Theory, Research, and Methods in Study of International Migration. (4) Seminar, three hours. Limited to International Migration Studies minors. Overview of key debates in study of international migration,
Italian culture offers unmatched rewards. The De understanding many facets of European civilization. Italian art and letters provide an invaluable key to

Hoang T. M. Truong, PhD
Lecturer

Elissa A. Tognozzi, PhD
Senior Lecturer SOE

Andrea Moudarres, PhD
Assistant Professor

Marga Cottino-Jones, PhD, Dottore in Lettere

Luigi Ballerini, Dottore in Lettere
Professors Emeriti

John A. Agnew, PhD
Massimo Ciavolella, PhD (Franklin D. Murphy Professor of Italian Renaissance Studies)
Thomas J. Harrison, PhD
Lucia Re, PhD, Dottore in Lettere
Stefania Tutino, PhD

Professors Emeriti
Luigi Ballerini, Dottore in Lettere
Franco Bettì, PhD
Marga Cottino-Jones, PhD, Dottore in Lettere
Edward F. Tuttì, PhD

Associate Professor
Peter J. Stacey, PhD

Assistant Professor
Andrea Moudarres, PhD

Senior Lecturer SOE
Elissa A. Tognozzi, PhD

Lecturer
Hoang T. M. Truong, PhD

Bachelor of Arts degrees are offered in Italian and in Italian and Special Fields. Graduate study leads to the Master of Arts degree in Italian (with specializations in literature and language) and to the PhD (literature specialization).

Undergraduate Study

The Italian and Italian and Special Fields majors are designated capstone majors. Students are required to conceptualize, design, and complete an interdisciplinary research project or thesis. Through the capstone experience, students demonstrate their mastery of an area of Italian culture, as well as their skills in identifying and analyzing primary sources, integrating what they have learned in the course of their major studies, and presenting their work to peers under the guidance of a faculty mentor who facilitates discussion and peer review.

Italian BA

Capstone Major

The program of studies leading to the Bachelor of Arts in Italian consists of two distinct phases: preparation in the language and study of the 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.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Ten upper-division Italian courses, including 100, 199B (senior capstone course), one medieval to 18th century course from 113 through 118, one Enlightenment to contemporary course from 119 through 125, and six elective courses from 103A through 191. With consent of the undergraduate advisor, students may substitute up to one each of Italian 195 and 199A and an upper-division elective course from outside the department.

Majors who select courses taught in English must do additional work from the original Italian texts in consultation with the course instructor.

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.

Majors who select courses taught in English must do additional work from the original Italian texts in consultation with the course instructor.

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, 1998 (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, 1998 (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 1, 2, 3 or Latin 1, 2, 3, or equivalent.

The Major
Required: Italian 100, 1998 (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 103A 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, 1998 (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from English 100 through 113A, 114 through 135, 139 through 183C 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, 1998 (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 1, 2, 3, 4, 5, 6, and 12 or 14.

The Major
Required: Italian 100, 1998 (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from French 108 through 172 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, 1998 (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Gender Studies 102 through M191 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, 1B, 1C, 20, 21, 22.

The Major
Required: Italian 100, 1998 (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.

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, 1998 (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, 1998 (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 M191 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, 1998 (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 1, 2, 3, 25 (or 26 or equivalent as determined by placement test), 46.

The Major
Required: Italian 100, 1998 (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 1, 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 1114 selected in consultation with the undergraduate adviser.

Study in Italy
Students are encouraged to spend up to one year in Italy either to (1) study with an education abroad program 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 subjec 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 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 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.
8A-BB-BC Italian Conversation. (2–2–2) Seminar, three hours. Enforced requisite for course 8A: course 2; for BB: course 3; for BC: course 4. Each course may be repeated once for credit. P/NP or letter grading.
9. 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.
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.
42A. Italy through Ages in English: Saints and Sinners in Early Modern Italy. (3) Lecture, four hours; discussion, one hour. Examination of issues of cultural heritage, political and religious freedom, and doctrinal 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. Artworks may include those of Raphael and Michelangelo, as well as Bernini’s sculptures. P/NP or letter grading.
42B. Italy through Ages in English: Modern and Contemporary Italy. (4) 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 works include relevant literature and memoirs, music, and film, futuristic and fascist art, and organized crime fiction and film. P/NP or letter grading.
48C. Italy through Ages in English: Food and Literature in Italy. (3) Lecture, four hours; discussion, one hour. Profile of Italian history and culture through analysis of gastronomic and literary texts. Special emphasis on late Middle Ages, Renaissance, and Risorgimento. P/NP or letter grading.
46. Italian Cinema and Culture in English. (5) Lecture, five hours; discussion, one hour. Special topics in Italian culture as reflected and reinforced by the nation’s prime art form, stressing aesthetic and ideological works. 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 popular spectacle, including theater, opera, and film. Works by Goldoni, Gozzi, Mascagni, Verga, Puccini, Pirandello, Calvino, Ortese, Zavattini, 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, Cervantes, Arab chronicles of Crusades, travel logs and letters of Christopher Columbus, Italian Renaissance epic poems, and anticolonial polemics. 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 the college. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses


102A-102B. Italian Cultural Experience in English. (4-4) Lecture, three hours. Study of cultural development of Italy. P/NP or letter grading.

102A. Roots of Western civilization; social and artistic achievements of communal society; Marco Polo, Boccaccio, Decameron; achievements of communal society; Marco Polo, Petrarca, Dante, Boccaccio, Giotto, rise of Italian merchant class. 102B. Renaissance discovery of human genius; crucial period between Machiavelli and Galilei, leading Italy and Europe to scientific revolution. 102C. Birth of Italian nation from wars of independence to 1848. Enforced requisite: course 6. Taught in Italian. Discussion of various historical, political, and social developments in Italy from the early Middle Ages, Renaissance, and Risorgimento, or modern and contemporary Italy. P/NP or letter grading.

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 to modern times. 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 traditional views. Representative authors include Dante, Petrarch, Boccaccio, Stendhal, Shakespeare, and Dostoevsky. P/NP or letter grading.

103B. Introduction to Modern Italian Literary and Cultural Studies. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Selected modern works of Italian literature, theater, art, and culture from Enlightenment to present. 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 traditional views. Representative authors include Vico, Goldoni, Gozzi, Puccini, D’Annunzio, Amelio Rosselli, D’Annunzio, Franca Rame, and Dario Fo. P/NP or letter grading.

104. Food and Literature in Italy. (4) Lecture, three hours. Analysis of gastronomic documents, food traditions, and literary and visual works. Emphasis on late Middle Ages, Renaissance, and Risorgimento, or modern and contemporary Italy. P/NP or letter grading.

121. Literature and Film. (4) Lecture, three hours. Comparative study of Italian and French cinema and of different techniques in two media and forms of expression. Texts include literary works, screenplays, and works on literary and film theory. P/NP or letter grading.

122. Italian Theater. (4) Lecture, three hours. History of Italian theater, from medieval to modern times. Focus on Italian acting, staging, and performance. May include texts by Machiavelli, Petrarca, Dario Fo, Dante, and Ariosto. P/NP or letter grading.

123. Modern Italian Cultural Studies. (4) Seminar, three hours. Reading, research, and writing on various cultural aspects of modern and contemporary Italy. P/NP or letter grading.

124. Food and Literature in Italy. (4) Lecture, three hours. Focus of Italian food culture and history through analysis of gastronomic documents, food traditions, and literary and visual works. Emphasis on late Middle Ages, Renaissance, and Risorgimento, or modern and contemporary Italy. P/NP or letter grading.

125. Italian through Opera. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Introduction to traditional Italian opera as means of appreciating culture of Italy, art form of opera, and study of Italian language at advanced level through reading of libretti. Six masterworks of Italian opera tradition—Il Barbiere di Siviglia, La Bohème, Pagliacci, Otello, Tosca, and La Traviata—offer culturally authentic contexts to learn about Italian language, history, culture, politics, and literature. P/NP or letter grading.

126. Italian Renaissance. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Study of cultural and political life in Italian Renaissance, 300 AD to 1500 AD. Focus on major Italian cities, cultural achievements, and political and social changes. P/NP or letter grading.


128. Italian Realism and Romanticism. (4) Lecture, three hours. Study of literary trends and masterpieces in 19th-century Italy. Readings include novels by Manzoni, Stendhal, Stendhal, and Dostoevsky; addressing themes of social and political unrest, patriotism, North-South conflicts, family, and gender relations. Romantic lyric poetry by Foscolo and Leopardi expressed emotions and ideas on erotic desire, nature versus culture, temporality, death, and yearning for aesthetic perfection. P/NP or letter grading.

129. Italian Literature and Film. (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, screenplays, and movies on literary and film theory. P/NP or letter grading.

130. History of Italian Language. (4) Lecture, three hours. One of world’s greatest literary geniuses, particularly of his masterpiece, The Divine Comedy; the archetype medieval journey through the afterworld. 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 through selected works of international fame, with focus 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 traditional views. Representative authors include Umberto Eco’s The Name of the Rose, Pasolini’s The Ragazzi, Pirandello’s The Late Mattia Pascal, and Calvino’s The Cosmics. P/NP or letter grading.

151. Italy and Asia. (4) Lecture, three hours. Examination of portrayals of Asian culture in Italy and Italian culture in Asia, and ways in which Asia and Italy view each other through eyes of writers, travelers, and modern media. Discussion has evolved from relatively homogeneous society to multicultural country that includes growing Asian and Asian-Italian population. P/NP or letter grading.

M158. Women, Gender, and Sexuality in Italian Culture. (4) (Same as Gender Studies M158) Lecture, three hours. Historical and contemporary ways in which gender roles, images of femininity and masculinity, patriarchy, myths of Madama and India, 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.

159. History of Italian Language. (4) Lecture, three hours. Focus of Italian food culture and history through analysis of gastronomic documents, food traditions, and literary and visual works. Emphasis on late Middle Ages, Renaissance, and Risorgimento, or modern and contemporary Italy. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Enforced requisite: course 100. Taught in Italian. 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.

191. Advanced Honors Seminars. (1) Seminar, three hours. Review of foreign language, history, and literature. May be taken to 20 th session, served 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.

150. Community or Corporate Internships in Italian. (4) Tutorial, three hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. May be taken to 20 th session, served 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.

152. Italy between Europe and Africa. (4) Lecture, three hours. History of Italian love affair with African writers (including travelers and migrants) who from 18th century to 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.

ence. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

198. Honors Research in Italian. (4) Tutorial, one hour. Limited to juniors/seniors. Development and completion of significant research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199A. Directed Research in Italian. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research and study under guidance of supervising 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. Requisites: courses 100 and at least four required courses for the major. Limited to senior Italian and Italian and Special Fields majors. Supervised individual research and study under guidance of faculty mentor. Culminating seminar in which interdisciplinary paper (20 to 25 pages) is to be written in either Italian or English that requires students to synthesize their knowledge of Italian or Italian and one special field of study. Individual contract required. Letter grading.

Graduate Courses


205. Studies in Criticism and Theory. (4) Seminar, three hours. History, theory, and practice of criticism. Presentation, discussion, and application of fundamental currents in aesthetics and criticism from Plato and Aristotle to present, including thematic and genre criticism, poststructuralist approaches, and feminist criticism. Letter grading.

210. Studies in Early Italian Literature. (4) Lecture, three hours. Topics include origins of Italian language and study of early texts, Scuola Siciliana and poetry of Central and Northern Italy, and Dolce Stil Novo. S/U or letter grading.

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. Petrarch’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 Jacobone of Todi.


216A-216E. Studies in the Renaissance. (4 each) Lecture, three hours. S/U or letter grading. 216A. Machiavelli 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. Alfieri. 218C. Goldoni. 218D. Lecture, three hours. S/U or letter grading. 218D. Variable Topics. Variable-content seminar on themes and issues of 18th-century literature, with coverage of authors such as Vico or Ugo Foscolo.

219A-219D. Studies in 19th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 219A. Foscolo. 219B. Leopardi. 219C. Manzoni. 219D. Variable Topics. Variable-content seminar on themes and issues of 19th-century literature, with coverage of authors such as Carducci, Tommaso Grossi, or Nievo.

220. Studies in Turn-of-the-Century Literature. (4) Lecture, three hours. Topics include Verdi and Wagner, poetry, prose, and theater of D’Annunzio, and the Symbolists (such as Huysmans, Mallarmé, and Verhaeren). S/U or letter grading.

221A-221E. Studies in 20th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 221A. Variable Topics. Variable-content seminar on themes and issues of contemporary literature, with coverage of authors such as D’Annunzio, Verdi, Marinetti, and Pirandello. 221B. Contemporary Poetry. Analysis of legacy of two major figures in Italian poetry from World War II—Ungaretti and Montale. thorough examination of movements and individual poets active in the 1960s and 1970s. 221C. 20th-Century Narrative to World War II. Assessment of turn-of-the-century narrative pattern (Gabriele D’Annunzio) and analysis of radical innovations brought about by such towering figures as Pirandello, Svevo, Bernini, Marinetti, etc. 221D. 20th-Century Narrative since World War II. In-depth exploration 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. Postwar Italian Literature. 221F. Graduate seminar in which students develop materials for class presentations with USC. S/U grading.

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 dialects.

223. Structures of Modern Italian. (4) Lecture, three hours. Descriptive analysis of basic features of standard Italian from synchronic, typological vantage. Topical emphasis may vary annually, but core progression departs from phonology (e.g., syllable types, prosodic patterns, phrasal phonetics), moves through morphologic constituents, passing to sentence sequences (coordination, ellipses, etc.). S/U or letter grading.

224. Italo-Romance Dialectology. (4) Lecture, three hours. Differentiation of late spoken Latin into mythic varieties spoken in Italy. Attention to discrete language types (e.g., Sardinian, Ladino, Friulian, and Franco-Provençal). Consideration of 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 ac- ceptance 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. 230A. Folklore and folk culture in Italy, with focus on its development from its origins through Fascist times to neorealism, its legacy, different genres, and contemporary scene. S/U or letter grading.

257A-257B. Seminars: Romanticism. (4-4) Seminar, three hours. Topics include Romanticism as a phenomenon in the 19th century with special emphasis on its development in Italy. 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 ethnolinguistic groups to be studied across range of texts, some selected from literary canon, but others purely oral (tales, songs, proverbs, cures and curses, secular and ritual drama). S/U or letter grading.

260B. Women in Italian Culture. (4) Lecture, three hours. Designed for graduate students. 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 scene. 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 uniquely Italian literature 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 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-495B-495C. Teaching Italian at College Level. (2 to 4 each) Seminar, to be arranged. S/U grading.

496A. Study methods in preparation for teaching Italian at college level, with emphasis on teaching pro- ficiency-oriented instruction. May not be applied to- ward CA course requirements. 496B. 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 class- room 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.
Labor and Workplace Studies

Interdisciplinary Minor
College of Letters and Science

F. Tobias Higbie, PhD, Chair

Faculty Committee

Maylei S. Blackwell, PhD (Chicana and Chicano Studies, Gender Studies)
Christopher L. Erickson, PhD (Management)
Kelly A. Lytle Hernández, PhD (History)
Gaye T. Johnson, PhD (Chicana and Chicano Studies)

Janice L. Reiff, PhD (History, Statistics)
Sarah T. Roberts, PhD (Information Studies)
Abel Valenzuela, Jr., PhD (Chicana and Chicano Studies, Urban Planning)
Noah D. Zatz, JD, MA (Law)

Scope and Objectives

The Labor and Workplace Studies minor offers an opportunity to learn about the workplace and the social, political, and economic forces that influence it. The program emphasizes the institutions of the labor market, public policy, employment relations, unions, and working-class movements. It also explores issues of race, class, and gender in the workplace. The interdisciplinary approach gives students exposure to disciplines in addition to their own majors; students should plan to take courses from multiple departments, as disciplinary breadth is encouraged.

The program is intended for students who wish to gain an in-depth understanding of the broad array of issues related to labor and the workplace. Students are encouraged to plan, with the faculty adviser and minor coordinator, either a coherent integration of courses according to a thematic or subtopic investigation or, alternatively, a comprehensive survey of the main issues involved in the study of labor and the workplace.

Undergraduate Study

Labor and Workplace Studies Minor

The Labor and Workplace 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 (2.0 grade-point average or better), have completed 45 units, and file a petition and meet with the faculty adviser and minor coordinator in Q244 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 Courses (28 units minimum): Seven courses, with no more than two lower-division courses (8 units), selected from African American Studies M173, Asian American Studies M113, M116, Chicana and Chicano Studies M125, M127, M128, 129, Economics 150, 151, Gender Studies M137E, M163, History 141B, 146A, 146B, Labor and Workplace Studies M1A, M1B, M1CW, 10, 101, M141C, M161, M117, M119, M121, M122, M123, M125, 126, M127 M128, M136, M144, M149, M165, M166A, M166B, M167, M170 through M175, 177, M180, 181, 182A, 182B, 187, 188, 194A, 194B, 195A, 195B, 199, Political Science 116A, Sociology 157, M163, 171, 173. Students may petition, prior to enrollment in the course, to apply other topical courses with substantial labor and workplace studies content.

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.
legal issues impacting undocumented students. Designed around class project, where students work on showcasing all material collected throughout year. Letter grading.


168. Law and Politics of Immigration: Migrants and Inevitable Evolution of Collective and Individual Rights. (4) 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 and in 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 interweaving history, policy, 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 themes of asylum, citizenship, integration, and multiculturalism. Students describe shortcomings of status quo policies while also imaging and prescribing arguments about where law can and should be. Letter grading.

M170. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) (Same as Community Health Sciences CM170.) Lecture, three hours; fieldwork, two hours. Examination of intersections of health, environment, and economic analysis of social causes of health disparities, interpretation 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) (Same as Urban Planning CM172.) Lecture, three hours. Exploration of economic development and identification of economic, labor, and political factors that directly and indirectly influence and shape economic development. Wide range of roles that labor plays, and connections between labor, environmental policies, and economic development for all. Letter grading.

M172. Free Speech in Workplace. (4) (Same as Communication M172.) Lecture, three hours. Focus on concept of freedom of expression in workplace and how First Amendment, labor law, and federal and state statues affect one’s ability to speak at work. Conflict between discrimination law and ability to speak freely. Examination of specific case studies and workshop experiences. Includes videos 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) Lecture, three hours. Study of intersection of neoliberalism, democracy, and rise of social movements since late 1970s. This offers depth, theoretically rigorous, and empirically-based understanding of dynamics that have produced specific form of crisis that envelopes contemporary politics. Focus on understanding and explaining development of neoliberalism and relationship of neoliberalism and ideologies frame and form of governance. Examination of some of main works on democratic theory and relationship to social justice. Students 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. Examination of emergence of grassroots politics that have organized around issues that challenge or contest neoliberal dominance and attempt to reassert principles of democratic inclusive organizing and supporting social change. P/NP or letter grading.

179B. Doing Democracy: Social Movements, Grassroots Politics, and Community Organizing. (4) Lecture, three hours. Focus on community organizing and social movements as mechanism 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 these elements are being undermined in current period. Focus on those efforts to promote social movements as mechanism for creating a more responsive form of popular sovereignty through politics of social movements and community organizing. Study of various forms of social movements and different models of organizing and community organization and their relationship to democratic governance. P/NP or letter grading.

M180. Southern California Regional Economy. (4) (Same as Urban Planning CM13T.) Lecture, three hours. Examination of 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 trips to key economic locations and guest lectures by regional experts included. Letter grading.

181. Los Angeles Labor and Social Science Research Principles, Methods, and Practices. (4) Lecture, three hours. Students gain experience in social science research methods. Through combination of lectures, key readings, and participation in hands-on research project, students develop understanding of critical debates regarding role of research in socioeconomic context that impacts workers and their organizations and communities at large. Introduction to several research methods that are typically effective in producing sound and rigorous studies about and for labor movement, including statistics that can be used for policy analysis 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) Lecture, three hours. Part I of two-part series on oral history, memory, and public engagement with history in 21st century. Hands-on experience in interviewing, processing, technology, and public engagement. Readings and discussions of literature about 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 to produce narratives to be consumed by public. No prior knowledge or experience with interviewing and processing required. P/NP or letter grading.


187. Special Courses in Labor and Workplace Studies. (4) Lecture, three hours; discussion, one hour. Program-sponsored experimental or temporary course of such public benefit as to warrant special credit. May be repeated for credit. P/NP or letter grading.

188. Special Courses in Labor and Workplace Studies. (4) Seminar, four hours. Program-sponsored experimental or temporary course, such as those taught by visiting faculty members. Enforced corequisite: course 195A. Designed for students in College Honors Program. May be repeated for credit. P/NP or letter grading.

189. Advanced Honors Seminar. (1) Seminar, three hours. Limited to 20 strong students who have completed core requirements in addition 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. P/NP or letter grading. 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 in independent course 195A. Available only to undergraduate students who are part of Harvard College 195A. Designated for undergraduate students who are part of Harvard Summer Research Internship Program. Discussion of qualitative applied research methods used by union researchers and scholars in labor relations and workplace studies. Through combination of lectures, key readings, and active participation in hands-on research internships with local unions and organizations, development of understanding of critical debates regarding role of research and socioeconomic
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 human and social sciences, fine arts, and professional fields provide students with a unique opportunity to focus on Latin America, a region of growing importance.

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 MEd, 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.
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Lara Stemple, JD
Alicia Virina, JD, MA
Karin H. Wang, JD
Wilber H. Watts, JD

Scope and Objectives
The UCLA School of Law is designed to produce
lawyers who are well-prepared for the various pri-
vate and public roles that are assigned to members
of the legal profession. The school pioneered cli-
nical teaching, is a leader in interdisciplinary re-
search 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 school offers a three-year curriculum leading to
the JD degree and two advanced degrees—Master
of Laws (LLM) and Doctor of Juridical Science (SJD).

Graduate Study
The School of Law offers the Juris Doctor (JD), Doc-
tor of Juridical Science (SJD), and Master of Laws
(LLM) degrees.

Nine 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 Policy MPP, Law JD/Public
Health MPH, Law JD/Social Welfare MSW, and Law
JD/Urban Planning MURP) are also offered.
The undergraduate courses offered by the School of Law are designed for undergraduate students only. For information about the legal curriculum of the School of Law, see the school website.

Law, Undergraduate

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current theoretical importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

100. American Political Thought Seminar. (3) Seminar, two hours. Corequisite: course 193. Limited to College Honors students. Lectures on alternating theoretical approaches (including realism, institutionalism, and constructivism) to understand relationships between politics and international law. Weekly presentations on topics by 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 depth through supervisions, 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 or letter grading.

199. Directed Research in Law. (1 to 6) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of chosen faculty member in charge of colloquium series. Culmination of scholarly paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Upper-Division Courses

156. American Political Thought Seminar. (3) Seminar, nine hours. Examination of American political thought from founding to writings of Abraham Lincoln. Readings include Locke's Second Treatise of Government, Declaration of Independence, Federalist numbers 10 and 51, and numerous writings and speeches of Lincoln, including extensive portions of Lincoln-Douglas debates. Emphasis on class discussion. Letter grading.

161. Consumer Bankruptcy Policy Seminar. (3) Seminar, 13 hours. Examination of consumer bankruptcy policy with one architect of 1978 Bankruptcy Code. Discussion of debt payment in ancient Babylon where spouses and siblings could be sold into slavery for nonpayment of relative's debt. Examination of bankruptcy in U.S. history and analysis of heart of consumer bankruptcy policy, such as when debtors should be released from debts, what property debtors should keep, and how debtors can put together repayment plans. P/NP or letter grading.


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 to U.S. territory and statehood. Topics include state measures affecting California Indians in 19th century, African Americans in California’s 19th-century history, measures used to curtail Chinese immigration laws designed to prevent racial intermixing, Alien Land Laws aimed at Japanese residents of California, relocation of Japanese citizens after Pearl Harbor, California U.S. immigration from dust bowl during great depression, post-World War II through 1960s measures aimed at equal access to things like home ownership, employment, and rental housing, and uses of initiative in modern era. P/NP or 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 and other branches of constitutional meaning, including popular movements and expressions of constitutional principle from actors in other branches of federal government and in states. Emphasis on historical 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 origin 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.


176. Politics and International Law Colloquium. (3) 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 or letter grading.

178. Law and Popular Culture. (4) Lecture, four hours. Examination of cultural products such as films or television shows related to law, lawyers, and judicial system. Discussion of influence of popular culture in interpretation of legal principles and constitutional law. P/NP or letter grading.

180. Special Topics in Law. (2) Lecture, four hours. Topics of special interest to undergraduate students. Selection of topics varies 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. Discussion of cases from famous films or television shows that reveal underlying legal principles and constitutional law. P/NP or letter grading.

186. Law and Order. (4) Lecture, four hours. Preliminary introduction to legal pedagogy and the roles of lawyer, and legal system. Discussion of principles of law and legal system, and how they are applied to real-world problems. P/NP or letter grading.

187A. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in depth through supervisions, 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.

187B. Politics and International Law Colloquium. (3) Seminar, two hours. Corequisite: course 193. Limited to College Honors students. Lectures on alternating theoretical approaches (including realism, institutionalism, and constructivism) to understand relationships between politics and international law. Weekly presentations on topics by 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.
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.


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 25 percent) of the course content. Students are strongly urged to keep in close contact with the program coordinator 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, 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.)

89B. 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 credit grading.

Upper-Division Courses
M101A. Premodern Queer Literatures and Cultures. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M101A) (Same as English M101A and Gender 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 Victor Hugo, Shakespeare, and Thomas Gray may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101B. Queer Literatures and Cultures, 1850 to 1970. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M101B) (Same as English M101B and Gender 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.

M101C. Queer Literatures and Cultures after 1970. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M101C) (Same as English M101C and Gender 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 in 1969. Works by such authors as Andrew Holleran, Leslie Feinberg, Achy 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.

M101D. Studies in Queer Literatures and Cultures. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M101D) (Same as English M101D and Gender 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 focus on particular problem or issues 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.

M107B. Studies in Gender and Sexuality. (6) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M107B.) (Same as English M107B and Gender Studies M107B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of literary and cultural production through lens of gender and sexuality. Depending on instructor, emphasis may be historical, regional, 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.

M114. Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M114.) (Same as Gender Studies M114.) Lecture, three hours; discussion, one hour. Introduction to history, politics, culture, and scientific study of lesbian, gay men, bisexuals, transgendered, 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) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M115.) (Same as Gender Studies M115.) Lecture/discussion, three hours. Requisite: course M114 or Gender Studies 10. Studies in arts, humanities, social sciences, and/or the social sciences on aspects of sexual orientation, gender identity, and lesbian, gay, and/or bisexual issues; variable topics may include cultural representations, historical and political change, life and death experiences, queer or transgender theories; multiethnic and cross-cultural emphases. May be repeated for credit. Letter grading.


M118. Queering American History. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M118.) (Same as Gender Studies M118.) Lecture, four hours. Enforced requisite: one prior lesbian, gay, bisexual, transgender, and queer studies course. Exploration of lesbian women’s history in setting of social protest with an emphasis on the history of gender and sexuality on specific historical cultures. Reading and discussion, one hour (when scheduled). Examinations of intersection of radical feminist, queer or transgender nonconforming and lesbian, gay, bisexual, and transgender nonconforming and lesbian, gay, bisexual, and transgender issues; variable topics may include identity, age, class, gender, and racial diversity; and analysis of contemporary issues affecting contested sexualities.

M136. Lesbian, Gay, Bisexual, Transgender, and Queer Studies. (Same as Chicana and Chicano Studies M136.) Lecture, three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transgender people. Course may be repeated for credit with consent of instructor. P/NP or letter grading.

M137. Lesbian, Gay, Bisexual, Transgender, and Queer Perspectives in Pop Music. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M137.) (Same as Musicology M137.) 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.

M141. African American Women’s History. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M141.) Lecture, four hours. Historical examination of black women’s experiences within the historical transitions of American history, exploration of key themes, including gender formation, sexuality, labor and class, collective action, gender and sexual violence, reproduction, and role of law. How have oppression and intersecting inequalities impacted black women’s historical lives? How is difference constructed through intersected and overlapped ideologies of race and gender? How do historians understand black women’s lives and what are challenges to such discoveries? Examination of black women’s individual and collective struggles for freedom from racism, sexism, and heteronormativity, as well as black women’s politics and challenge to social movements, including suffrage, women’s liberation, civil rights, and black power. Investigation of black women’s intellectual history, including their cultural productions. Letter grading.

M142. Race, Gender, and Punishment. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M142.) (Same as African American Studies M142.) Seminar, four hours. Interdisciplinary examination of historical and contemporary development of modern prison industrial complex in U.S., with attention to impact of prison industrial complex on immigrants, including undocumented residents, home-less populations, Americans, and transgender nonconforming and lesbian, gay, bisexual, and transgender communities. Why does U.S. have largest prison population in world? What historical conditions are responsible for this massive expansion in U.S. prisoner population? What policies have fueled mass imprisonment? Who is imprisoned? How have politicians used imprisonment as response to economic transformations and perceived social disorders? How is current crisis analogous to or distinct from regimes of racialized punishment in prior historical moments? Letter grading.

M147A. Psycholoy of Lesbian and Gay Jewish Experience. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M147A) (Same as Gender Studies M147A and Psychology M147A.) Lecture; two hours; discussion. Enforced requisite: course M114 or Gender Studies 10 or Psychology 10. Designed for juniors/seniors. Review of research and theory in psychology and gender studies to examine various aspects of lesbian and gay 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 Jews in social/historical context. P/NP or letter grading.

M155SL. Queer Activism and Engagement. (4) Lecture, three hours; fieldwork, five hours. Benefits students pursuing minor in Lesbian, Gay, Bisexual, Transgender, and Queer Studies. May be repeated for credit with consent of instructor. P/NP or letter grading.

M165. Censored Art on Trial. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M136.) (Same as Chicana and Chicano Studies M136.) Lecture, four hours; fieldwork, five hours. Examination of censorship in visual arts, particularly art of queer Chicana/Chicano and Latina/Latino artists such as Alma Lopez, Esté Hernández, and Alex Doris. Other censored artists include feminist artist Yolanda López, queer artists Robert Mapplethorpe and David Wojnarowicz, painter Chris Ofili, photographers Sally Mann and Andreas Serrano, printmaker Enrique Chagoya, muralist Noni Olatibi, writer Saiman Ashuadi, and four performances: ‘Theater of War’ by Karen Page, ‘The Voice’ by John Fleck, and Holly Hughes—whose work was vetoed by chair of National Endowment for Arts (NEA) in 1990 after they had successfully passed through NEAs peer review system. May be known as LEA Four. P/NP or letter grading.

M167. Contested Sexualities. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M167.) (Same as Gender Studies M167.) Lecture, three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transgender people. Course may be repeated for credit with consent of instructor. P/NP or letter grading.

170. Queer Cultures after Stonewall: Sexual Dissidence, Performance, and Community in 1970s. (5) Lecture, four hours. Exploration of intense burst of cultural making among lesbians and gay men in U.S. and Canada in decade following Stonewall Rebellion in literature and performing arts through formal and thematic analysis, exploration of social contexts of creation and reception, and wide-ranging interpretive study. No extensive training in literary, musical, visual, or media analysis is required; conceptual and analytical frameworks to be used are provided. P/NP or letter grading.

180SL. Lesbian, Gay, Bisexual, and Transgender Inclusion and Organizations. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies 180SL.) Lecture, three hours; fieldwork, five hours. Preparation: one prior lesbian, gay, bisexual, and transgender studies course. Learning experience: course that offers opportunity for students to work in lesbian, gay, bisexual, and transgender-related community organizations, to reflect on political and theoretical issues involved in such work and such organizations, and to draw from ideas drawn from various courses they have already taken and test them in settings outside UCLA. P/NP or letter grading.

181. Variable Topics in Queer Diversities. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies 181.) Lecture, four hours. Study of topics about queer diversities from lesbian, gay, bisexual, and transgender studies perspective. May be repeated for credit with consent of instructor. P/NP or letter grading.

182. Variable Topics in Education, Law, and Public Policy. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies 182.) Lecture, four hours. Study of law, education, and public policy topics from lesbian, gay, bisexual, and transgender studies perspective. May be repeated for credit with consent of instructor. P/NP or letter grading.

183. Variable Topics in Queer Subjectivities/Theories/History. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies 183.) Lecture, four hours. Study of topics about queer subjectivities/theories/history from lesbian, gay, bisexual, and transgender studies perspective. May be repeated for credit with consent of instructor. P/NP or letter grading.

184. Variable Topics in Science, Health, and Genetics. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies 184.) Lecture, four hours. Study of science, health, and genetics topics from lesbian, gay, bisexual, and transgender studies perspective. May be repeated for credit with consent of instructor. P/NP or letter grading.

185. Selected Topics in Lesbian, Gay, Bisexual, and Transgender Studies. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies 185.) Lecture, four hours. Study of selected topics in lesbian, gay, bisexual, and transgender studies. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. P/NP or letter grading.

186. 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 papers, 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.

M119ID. Topics in Queer Literatures and Cultures. (5) Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M119ID. (Same as English M119ID and Gender Studies M119ID.) Seminar, three or four hours. Enforced requisite: English Composition 3. 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.

M119IE. Topics in Gender and Sexuality. (5) Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M119IE. (Same as English M119IE and Gender Studies M119IE.) Seminar, three or four hours. Enforced requisite: English Composition 3. 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.

194. Research Group or Internship Seminars: Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies 194.) Seminar, two hours. Preparation: completion of four courses toward minor. Required: course M114. Corequisite: course 195. Designed for seniors who are doing internship in lesbian, gay, bisexual, or transgender organization. Discussion of organization theoretical and political issues in context of internship and relation of those issues to ideas explored in minor courses already taken. May be repeated for credit. P/NP grading.

195. Community or Corporate Internships in Lesbian, Gay, Bisexual, and Transgender Studies. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies 195.) Tutorial, one hour. Preparation: completion of four courses toward minor. Required: course M114. Corequisite: course 194. Limited to seniors. Internship in supervised setting in lesbian, gay, bisexual, or transgender community organization. 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.

197. Individual Studies in Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies 197.) Tutorial, one hour. Required: course M114. Limited to juniors/seniors. Directed program of independent study or research on specific topic within lesbian, gay, bisexual, and transgender studies, 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. P/NP or letter grading.

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**LIFE SCIENCES**

**College of Letters and Science**

2305 Life Sciences Building
Box 957246
Los Angeles, CA 90095-7246

**Life Sciences**

310-825-6614
Department e-mail
Beth A. Lazazzera, PhD, Director

**Scope and Objectives**

Students who wish to study life sciences have a choice of eight majors, all of which lead to a Bache-

lor of Science degree: Biology; Ecology, Behavior, and Evolution; and Marine Biology (Ecology and Evolutionary Biology Department); Microbiology, Immunology, and Molecular Genetics (Microbiology, Immunology, and Molecular Genetics Department); Molecular, Cell, and Developmental Biology (Molecular, Cell, and Developmental Biology Department); Neuroscience (Neuroscience Interdepartmental Program); Physiological Science (Integrated Biology and Physiology Department); and Psychobiology (Psychology Department). This choice reflects the diversity of undergraduate instruction in life sciences at UCLA. Unlike these major courses, students may also gain experience in a research laboratory through the Student Research Program. For more information on each major, see the individual departments in this chapter.

**Undergraduate Study**

**Life Sciences Core Curriculum**

Required: Chemistry and Biochemistry 1AA, 1AB, 14BL, 14CL, 14D, and 14E, 20A, 20B, 20L, 30A, 30AL, and 30E; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AA, and 48L, or 5A, 5B, and 5C.

Students must also complete one of two Life Sciences sequences—either Life Sciences I, 2, 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. They may not substitute courses in either sequence.

Each core curriculum 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 dismissal 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 (URCFG) 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 URCFG 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 URCFG 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 experiences. 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...
Genomics. Interested students should contact the URCF coordinator in the Molecular, Cell, and Developmental Biology 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 104.

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 14C or 30A (may be taken concurrently). Corequisite: course 23L (students must take 23L concurrently with course 3 if they do not plan to take course 4). 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. Enforced requisite: course 2 (enforced). Chemistry 14C or 30A (may be taken concurrently). Corequisite: course 23L (students must take 23L concurrently with course 3 if they do not plan to take course 4). Introduction to the basic principles of biochemistry and molecular biology. Letter grading.

3A. Introduction to Molecular Biology Laboratory. (1) 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 a variety of biological fields, molecular biology, microbiobiology, genomic biology, 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, three hours; discussion, 90 minutes; movie section, two and one half hours. Enforced requisite: 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, 90 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 evolutionary biology 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.

15L. Life: Concepts and Issues Laboratory. (1) Laboratory, two hours. Enforced requisite: 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 (chemistry, nutrition, reproduction, endocrinology, and neurobiology), and human behavioral biology. Letter grading.

20. Quantitative Concepts for Life Sciences. (5) Lecture, three hours; discussion, two hours. 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 the sciences. Topics: 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. Enforced requisite: course 23B. Recommended to be taken concurrently with course 7C. Introductory life sciences laboratory designed for undergraduate students. Opportunity to conduct wet-laboratory and cutting-edge bioinformatics laboratory experiments. Students work in groups of three conducting experiments in areas of physiology, metabolism, cell biology, molecular biology, genotyping, and bioinformatics. Letter grading.

30A. Mathematics for Life Scientists. (5) Lecture, three hours; laboratory, one hour. Preparation: three years of high school mathematics (to algebra II), some basic familiarity with computers. Mathematical modeling as tool for understanding dynamics of biological systems. Fundamental concepts of single-variable calculus and development of single- and multi-variable differential equation models of dynamical processes. Linear transformations to equip students with some skills that are applicable in variety of biological fields, molecular biology, microbiobiology, genomic biology, 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.

30B. Mathematics for Life Scientists. (5) Lecture, three hours; laboratory, two hours; one field trip. Enforced requisite: course 30A. Introduction to concept of matrices and linear transformations to equip students with some basic tools to understand dynamics of multivariable nonlinear systems. Examples from ecological, physiological, chemical, and other systems. Letter grading.

30C. Mathematics for Life Scientists. (5) Lecture, three hours; laboratory, one hour. Preparation: three years of high school mathematics (to algebra II), some basic familiarity with computers. Mathematical modeling as tool for understanding dynamics of biological systems. Fundamental concepts of single-variable calculus and development of single- and multi-variable differential equation models of dynamical processes. Examples from ecological, physiological, chemical, and other systems. Letter grading.

30D. Mathematics for Life Scientists. (5) Lecture, three hours; laboratory, two hours; one field trip. Preparation: three years of high school mathematics (to algebra II), some basic familiarity with computers. Mathematical modeling as tool for understanding dynamics of biological systems. Fundamental concepts of single-variable calculus and development of single- and multi-variable differential equation models of dynamical processes. Examples from ecological, physiological, chemical, and other systems. Letter grading.

40. Statistics for Biological Systems. (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 to understand dynamics of multivariable nonlinear systems. Examples from ecological, physiological, chemical, and other systems. Letter grading.

59. Honors Seminars. (1) Seminar, three hours. Limited to students in College Honors Program. Enrolled as adjunct to lower-division lecture course. In individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities approved by the course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

59C. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to lower-division lecture course. Individually arranged by lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities approved by the course instructor for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

69A. 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.

69B. 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.

98A. 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 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

107. Genetics. (5) Lecture, three hours; discussion, 75 minutes. Enforced 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, recombination, biochemical genetics, mutation, DNA, genetic code, gene regulation, genes in populations. Letter grading.

110. Career Exploration in Life Sciences. (2) Seminar, two hours. Recommended for sophomore and incoming transfer students. Designed to help life science students expand under development in life sciences. Opportunity to conduct career exploration and research. May be repeated for credit. P/NP grading.

154. Health Disparities. (4) Seminar: Psychology M174L. Lecture, three hours. Examination of health disparities and ways in which societal responses to race and ethnicity in combination with variation of other factors create differential quality and access to healthcare resulting in poor health outcomes in racial and ethnic minorities. Basic foundation for critical thinking about assumptions that shape life sciences, medical research, clinical practice, and social and behavioral sciences as they relate to race and ethnicity in 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.
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 requisite: course 188SA: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss 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.

190. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjacent 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. Introduction to Collaborative Learning Theory and Practice. (1) Seminar, one hour. Requisite: one course from 1, 2, 3, 4, 7A, 7B, 7C, 20, 23L, 30A, 30B, 40, 107, 110. Training seminar for undergraduate students who are selected for learning assistants (LAs) 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.

192B. Methods and Application of Collaborative Learning Theory in Life Sciences. (3) Seminar, one hour; clinic, nine hours. Requisite: 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.

192C. Methods and Application of Collaborative Learning Theory in Life Sciences. (2) Seminar, three hours; clinic, three hours. Requisite: 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.

192D. Methods and Application of Collaborative Learning Theory in Life Sciences. (2) Seminar, three hours; clinic, three hours. Requisite: 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.

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. Requisite: 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. Cumulating 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.

485. 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. May be taken concurrently in term in which they teach. Preparatory course 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.

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Faculty Roster

Professors

Bruce P. Hayes, PhD
Nina M. Hyams, PhD
Sun-Ah Jun, PhD
Patricia A. Keating, PhD
Hilda J. Koopman, PhD
Jody E. Kreman, PhD, in Residence
Anoop K. Mahajan, PhD
Carson T. Schütze, PhD
Yael Shavit, PhD
Dominique L. Sportiche, PhD
Timothy A. Stowell, PhD
Megha Sundara, PhD
Kie Ross Zuraq, PhD

Professors Emeriti

Raimo A. Anttila, PhD
Susan R. Curtiss, PhD
Thomas J. Hinnebusch, PhD
Edward L. Keenan, PhD
Craig H. 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
Jessica L. Rett, PhD
W. Harold Torrence, PhD

Assistant Professors

Dylan T. Burnford, PhD
Jesse A. Harris, PhD
Timothy Hunter, 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 ap-
proach 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

Preparation for the Major

Required: Linguistics 20; two of the following: Philosophy 3, Psychology 10 (or 100A), one cultural anthropology 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 of your 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, 122, Psychology 120A, 124E, 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 11, 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 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), 119B (or 120B), 120C, 130 or C140, two courses selected from Linguistics 104, M141, 144, M146, 170, 191B, two upper-division elective courses taught in the Linguistics Department, and five courses selected from Anthropology 151, M152P, M152Q, M152R, M154P, M154Q, M156, M157W, 159, Applied Linguistics 102W, 153, 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 114, M116, M146, M176A, M176B, M177, M178, Portuguese 100A, 100B, Slavic CM114, Spanish 100A, 100B, 160.

Only one course may be selected from Anthropology M152P through M154Q. No more than one service learning course may be applied. Only one language course beyond the second year may fulfill an elective requirement (e.g., Korean 100A can fulfill an
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 either Chinese, Japanese, or Korean; Linguistics 20; one cultural anthropology course; either Chinese 50, Japanese 50, or Korean 50, as appropriate; completion of the equivalent of the third term of a second foreign language.

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 introductory to linguistics course and two years of a 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, and 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), 110, 119A (or 120A), 119B (or 120B or 127), 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), Sociology M124A, CM125, Linguistics 165A and 165B (or 200A and 200B with grades of A in 120A and 120B respectively and consent of instructor) are recommended for students planning to pursue graduate work in linguistics.

Linguistics and Asian Languages and Cultures BA

The major combines the basic courses of the general linguistics program with that of East Asian languages and cultures. Students are able to study the civilizations of China, Korea, Japan, and India; and enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes

The Linguistics and Asian Languages and Cultures 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: Completion of the sixth term in either Chinese, Japanese, or Korean; Linguistics 20; one cultural anthropology course; either Chinese 50, Japanese 50, or Korean 50, as appropriate; completion of the equivalent of the third term of a second foreign language.

Transfer Students

Transfer applicants to the Linguistics and Asian Languages and Cultures 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 Chinese, Japanese, or Korean, one introduction to linguistics course, one cultural anthropology course, one Chinese, Japanese, or Korean civilization 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: Linguistics 103, 110, 120A, 120B, 165A (or 165B), four courses from CM122, 140A, 140B, 140C, 149; for the modern Japanese track: Japanese 100A, 100B, 100C, three courses from M120, CM122, CM123 (or CM127), 130B; for the classical Chinese track: Chinese 110A, 110B, 110C, three courses from 140A through 140D, 165, 187, for the modern Chinese track: Chinese 100A, 100B, 100C, three courses from 101A, 101B, 101C, CM120, CM127, 130A, 130B.

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, Philosophy 31, 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, two calculus courses, one symbolic logic course, four computer programming courses, and two years of one foreign language or one year in each of two foreign languages. One discrete structures course is 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, 120C, 165A (or 165B or 165C), 185A, one course selected from 104, 127, 122, 165A, 165B, 165C, 180, 185B; Computer Science 131, 132 or 161, 180, 181.
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**
- **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 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 symbolic logic course and two
courses from Western philosophy, political philosophy, philosophy of mind, or skepticism and rationality, 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 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: Eleven upper-division courses (six in linguistics and five in psychology) as follows: Linguistics 102 (or 103), 119A (or 120A), 119B (or 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, 124B, 124C, 124E, 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 Scandinavia through the study of its languages and literatures, 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 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, Scandinavian 1, 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: one years of either Swedish, Norwegian, or Danish, 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 (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper-division 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 general linguistics program with that of Spanish. Students are able to study one of the languages, literatures, and cultures of the Hispanic heritage, as well as enrich their knowledge about the nature, grammar, and history of human language.

Learning Outcomes

The Linguistics and Spanish 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, Spanish 1, 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 BA program 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 civilization 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 (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper-division elective in linguistics, three courses from Spanish 100A, 100B, 119, 160, and two additional upper-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 highest honors on the basis
American Sign Language

Lower-Division Courses


7. Intermediate American Sign Language. (5) (15) Lecture, 20 hours. Not open to students with credit for course 3 or students who have learned, from whatever source, enough American sign language to qualify for more advanced courses. Enforced requisite: course 6. Intensive elementary instruction in American sign language equivalent to courses 1, 2, and 3. Offered in summer only, P/NC or letter grading.


9. Interpreting (5) Lecture, four hours; discussion, one hour (when scheduled). Survey of interpreting. Enforced requisite: course 8. Designed for students who have learned American Sign Language (ASL) and deaf community and ways of critiquing media and interpreters of deafness and deaf people within context of U.S. social and cultural history. Examination of ethical changes in products of mass media within deaf community. P/NC or letter grading.

10. American Sign Language: Structure and Culture. (3) Lecture, three hours. Exploration of historical, mediating, social, political, philosophical, and cultural influences that have constructed categories of normalcy, disability, and deafness. Building on work of Michel Foucault and critical work in field of disability studies, inquiry into institutions that have enforced standards of normalcy throughout 19th and 20th centuries to present. Primary attention to rise of medical authority in West, history of disability, and contemporary bioethics issues confronting disability and deaf communities. P/NC 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 juniors/seniors. Study of 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, autism, politics of deafness, eugenics, deaf revolution movements, and role of hearing technology. Historical development of emergence, growth, and survival of America's deaf community and development of deaf identity over time. P/NC or 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 U.S. social and cultural history. Examination of ethical changes in products of mass media within deaf community and ways of critiquing media sources. P/NC or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunction 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/NC 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-depth study of lecture course material and/or 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.

Linguistics

Lower-Division Courses

1. Introduction to Study of Language. (5) Lecture, three hours; discussion, one hour. Summary, for general undergraduates, of what is known about human language; unique nature of human language, its structure, its universality, and its diversity; language in its social and cultural setting; language in relation to other aspects of human inquiry and knowledge. P/NC 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, ethnic and regional varieties of English, and newest arrival languages) and social and political aspects of American language use. P/NC or letter grading.


4. Language and Evolution. (5) 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/NC or letter grading.

5. World Languages. (5) Lecture, four hours; discussion, one hour (when scheduled). Introduction to linguistic diversity of world and to such core areas of linguistics as study of sound production and patterning (phonetics and phonology), word formation (morphology), and sentence formation (syntax). Structural characteristics of world languages and methods of classifying languages into families and types. Detailed discussion of representative languages with audiovis
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. Introduction to research methods for studying how children learn words and rules for producing and understanding sentences. Language acquisition in special populations such as children acquiring sign language, bilingual children, and people with language disorders. Focus mainly on English, with consideration of other languages. Offered in summer only. P/NP or letter grading.

M7. Language and Identity. (5) Same as Philosophy M24.) 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 systematic subordination of women; marginalization of racial minorities; and, in some cases, incitement to violence. Provides foundation for students of linguistic theory, philosophy, sociology, anthropology, and communication studies. P/NP or letter grading.

8. Language in Context. (4) Lecture, four hours; discussion, one hour (when scheduled). How is meaning of language influenced by world around us? Introduction to pragmatics, speech acts, ordinary language philosophy, and linguistic relativity. Good foundation for students of linguistics, philosophy, sociology, anthropology, and communication studies. P/NP or letter grading.

9W. Linguistic Humor: Amusing 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 secret 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 as innate part of human biology that allows people to adapt and linguistic background to adapt language for humorous purposes, albeit shaped by culture as to what counts as funny. Satisfies Writing II requirement. Honors content noted on transcript. P/NP 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 word meaning is 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.

11. Language in Action: Perspectives from Applied Linguistics. (5) (Formerly numbered Applied Linguistics 10.) Lecture, three hours; discussion, two hours. Not open for credit to students with credit for former Applied Linguistics 10.) Not available for credit toward a major in Linguistics. Introduction to rich variety of topics, approaches, research, and resources in interdisciplinary field of applied linguistics as it is practiced at UCLA. Series of presentations by various faculty members whose work is in those areas. Introduction to various ways language works in real life and how this can be described and studied in systematic ways; designed to teach students to write effectively. 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 and graduate students 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 properties of human language; phonetic, phonological, morphological, syntactic, and semantic structures and analyses; nature and form of grammar. P/NP or letter grading.

88A-88B. Lower-Division Seminars. (4-4) Seminar, three hours. Limited to freshmen/sophomores. Variable topics; consult Schedule of Classes. College of Letters and Science, or department for how to be offered in specific term. May be repeated for credit. 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.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. 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 contract noted on transcript. Letter grading.

97. Variable Topics in Linguistics. (1 to 4) Seminar, three hours; fieldwork, two hours. Variable topics offered by department 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 activity), two hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentors. 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. Introduction to Applied Phonetics. (5) 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. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: 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 such phenomena. P/NP or letter grading.

104. Experimental Phonetics. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 102 or 103. Survey of principal techniques of experimental phonetics. Use of laboratory equipment used for recording and analyzing phonetic data. 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 depending upon their identification with historical linguistics. Basic historical linguistics: 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.

110H. Introduction to Historical Linguistics for Graduate Students. (2) Lecture, four hours. Limited to and designed for entering linguistics graduate students depending upon their identification with historical linguistics. Basic historical linguistics: methods and theories appropriate to historical study of language, such as comparative method and method of internal reconstruction. Sound change, grammatical change, semantic change. SU/UG grading.

111. Intonation. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 20, 102 or 103, one course from 119A, 119B, 120A, or 120B. Recommended course 104A 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. (5) Lecture, four hours; discussion, 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.

M116. Introduction to Japanese Linguistics. (4) (Same as Japanese M120.) Lecture, three hours; discussion, one hour. Enforced requisite: 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.

119A. Phonological Structures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 20, and 102 or 103. Not open for credit to students with credit for course 120A. Survey of structures and properties of 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.

119B. Syntactic Structures. (5) 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 120B. Syntactic structures and syntactic patterns in world’s languages. Basic tools of syntactic analysis. Comparison of syntactic patterns of different languages. Tools of syntax as applicable to other fields. P/NP or letter grading.


120B. Syntax I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 20 with grade of B– or better. Course 120A is not a requisite for 120B. Descriptive analysis of morphological and syntactic structures in natural languages; emphasis on insight into nature of such structures other than linguistics formalization. P/NP or letter grading.

120C. Semantics I. (5) 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. (3) 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/locational possession, causation, interrogation, reflexivization, relativization, attribution (adjectives), time (tense and aspect), and control (coordination). Data from a range of languages presented and analyzed. P/NP or letter grading.

C128A-C128B. Romance Syntax: French. (4-4) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 128B. Aspects of structure of French language, with emphasis on constructs of construction not found in English. Concurrently scheduled with courses C228A-C228B. P/NP or letter grading.

130. Language Development. (5) 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 preschool development. Topics include infant speech perception and production, development of phonology, morphology, syntax, and word meaning. P/NP or letter grading.

132. Language Processing. (5) 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 mechanisms. 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 language production. P/NP or letter grading.

C135. Neurolinguistics. (5) 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 in adults with acquired and/or congenital language disorders. Concurrently scheduled with course C235. P/NP or letter grading.

C140. Bilingualism and Second Language Acquisition. (6) Lecture, four hours; discussion, two hours (when scheduled). Enforced requisite: courses 119A or 120A, 119B or 120B. Introduction to study of childhood bilingualism and adult and child second language (L2) acquisition, focusing 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.

M141. Current Methods of Language Teaching. (5) (Same as English Composition M141.) Lecture, four hours; discussion, one hour. Enforced requisite: course 20. Survey of theory and practice in teaching second language (L2) (1) past and present methods used to teach 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 in and rational base for design, development, implementation, and evaluation of second language instruction programs. P/NP or letter grading.

144. Fundamentals of Translation and Interpreting. (5) (Formerly numbered M144.) Lecture, four hours; discussion, one hour. Recommended preparation: knowledge of one or 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. Surveys of translation theories and rise of community interpreting and critical role of language brokering. P/NP or letter grading.

M146. Language in Culture. (5) (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 analysis of language as instrument. 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, P/NP or letter grading.

M150. Introduction to Indo-European Linguistics. (5) (Same as Indo-European Studies M150.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 120B, 119A or 120A, 119B or 120B. Analysis of language unique to members of class from data elicited from native speaker of that language. P/NP or letter grading.

161. Language Documentation. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 102 or 103, 119A or 120A, 119B or 120B. Analysis of language data unique to members of class from data elicited from native speaker of that language. P/NP or letter grading.

165A. Phonology I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 20. To be taken in term following completion of course 120A or as soon as possible thereafter. Further study in phonological theory and analysis: autosegmentary theory, features, metrical theory, inter-face of phonology and grammar. P/NP or letter grading.

165B. Syntax II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120A. To be taken in term following completion of course 120B or as soon as possible thereafter. Recommended for students who plan to do graduate work in linguistics. Form of grammars, word formation, fusion, and substantive universals in syntax, relation between syntax and semantics. 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 between sentences, lexical semantics, tense and aspect, adverbs, modality and intensionality. P/NP or letter grading.

170. Language and Society: Introduction to Socio-linguistics. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 20. Study of patterned covariation of language and society; social dialects and social styles in language; processes of multilingual societies. P/NP or letter grading.

175. Linguistic Change in English. (5) Lecture, four hours. Requisites: courses 110, 123A, 120B. Prerequisites of linguistic change. P/NP or letter grading.


M177. Structure of Korean. (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. Discussion of major syntactic, semantic, and pragmatic characteristics of Korean in light of linguistic universals, with brief introduction to formation, tone, aspects of structure, and phonological structure of Korean. Letter grading.


185A. Computational Linguistics I. (5) Lecture, four hours; laboratory, one hour. Requisite: courses 120B, Program in Computing 10C (or Computer Science 32). Recommended: course 165B or 200B. Overview of fundamental issues underlying kinds of grammars used in theoretical linguistics and psycholinguistics, and some connections to applications in natural language processing. Topics include recursion, relations, and language and classification of experience. Holistic approach to study of language, with emphasis on relationship of habitual thought and behavior to language; and analysis of language as instrument. P/NP or letter grading.

185B. Computational Linguistics II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 185A. Extension of material in course 185A, with emphasis on computational aspects of current tools and frameworks used in linguistic theory and their cognitive interpretations. P/NP or letter grading.

185SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SB. Honors content noted on transcript. P/NP or letter grading. 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.

185SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SB. Honors content noted on transcript. P/NP or letter grading. 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.

185SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Honors content noted on transcript. P/NP or letter grading. 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.

188SB. 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. Honors content noted on transcript. P/NP or letter grading. 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.

198. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Enforced requisite: course 198SB. Limited to senior/junior 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.

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199DH. 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.

191A. Variable Topics Research Seminars: Linguistics. (4) Seminar, three hours. Requisite: course 1 or 20. Research seminar on selected topics. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

192A-192B. Undergraduate Practicum in Linguistics. (4–2) Seminar, seven hours (course 192A) and six hours (course 192B). Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist in linguistics courses. Students assist in preparation of materials and development of innovative programs under guidance of faculty members. May be applied toward course requirements for any Linguistics Department major. Individual contract required. Information and contracts may be obtained from Linguistics Department. P/NP grading.

194. Research Group Seminars: Laboratory Research in Linguistics. (1 to 2) Seminar, one hour; laboratory, three to six hours. Students actively participate in experimental, computational, or fieldwork linguistics research and have opportunity to learn variety of research methods in laboratory or other collaborative environment. Students may be involved in various kinds of research methods, including administrative/organizational aspects, data analysis, participating in corpus annotation. Students are expected to attend regular laboratory meetings, if offered. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. P/NP 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 majors. 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 to be provided by internship site supervisor. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Linguistics. (2 to 4) Tutorial, four hours. Requisite: course 1 or 20. 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 Linguistics. I. (4) Tutorial, to be arranged. Preparation: 3.5 grade-point average. Requisite: course 165A (or 200A) and 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 honors thesis or comprehensive research project on linguistic topic selected by student under direct supervision of faculty member. Consultant professor in charge to enroll. May be repeated for credit. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Linguistics II. (2) Tutorial, to be arranged. Requisite: course 198A. Limited to juniors/seniors of honors thesis or comprehensive research project begun in course 198A under direct supervision of faculty member. Consultant professor in charge to enroll. May be repeated for credit. Individual contract required. Letter grading.

199A. 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. Culuminating paper required. Consultant 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 phonology. Integration 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 levels of representation, case theory, thematic roles, the lexicon, grammatical function-changing rules, head-complement relations. S/U or letter grading.

200C. Semantic Theory I. (4) Lecture, four hours. Overview of current results and research methods in linguistic semantics. Topics include generalized quantifiers and semantic universals, predicate argument structures, variable binding, monadic and polyadic 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 selected topics in theory of movement processes and topics selected from following areas: WH-movement and related rules, subjacency and other constraints on movement; ECP and related conditions on distribution of empty categories; resumptive pronoun constructions; parameter variation in movement constructions. L/F WH-movement introduction; cross-movement; gaps; barriers theory; control theory; null subject parameter. S/U or letter grading.


203. Phonetic Theory. (4) Requisite: course 120A. Preparation: course 165A (or 200A) and 165B (or 200B). Functions of the phonatory organs: fundamental principles of acoustics and of acoustic theory of speech production; issues in perception of speech; nature and design of feature systems for phonetic and phonological analysis.

204A. Experimental Phonetics. (4) Lecture, three hours. Requisite: course 103. Use of laboratory equipment to investigate articulatory, acoustic, and perceptual characteristics of phonetic material. Topics include design and statistics; theoretical basis of acoustic structure of speech sounds; computer-based speech processing, analysis, and modeling; perceptual and acoustic evaluation of synthetic speech. S/U or letter grading.

204B. Speech Production. (4) Lecture, three hours; laboratory, one hour. Requisite: course 104 or 204A. Survey of topics in speech production research, especially as related to linguistic phonetics. Topics include physiology of vocal tract and models of speech production and articulator-y/phraseological relations. Emphasis on use of laboratory methods such as aerodynamic transducers, electroglottography, static and electropalatography, electromagnetic articulography, and imaging techniques. S/U or letter grading.

204C. Speech Perception. (2 to 4) Lecture, four hours. Recommended preparation: course 104 (or 204A) or 111 (or 211). Limited to graduate students. Survey of topics in speech perception research. Topics include auditory physiology and psychophysics, categorical speech perception, and cross-linguistic speech perception and word recognition. Emphasis on use of experimental methods such as lexical decision, gating, priming, eye tracking, phoneme monitoring, and word spoken in S/U or letter grading.


207. Pragmatic Theory. (2 or 4) Lecture, four hours. Requisites: courses 200C, 201C. Introduction to formal pragmatic theory. Topics include act theory, imperatives, and other illocutionary modes; attitudinalization and affective meaning; organizational implicature; evidential implicature, and other kinds of implicature. Additional methods of seminar and reading-discourse, including game-theoretic pragmatics. S/U or letter grading.


209A. Computational Linguistics I. (5) Lecture, four hours; laboratory, one hour. Overview of formal computational ideas underlying kinds of grammars used in natural language processing. Elementary study of computational models of syntax, semantic, and discourse analysis, with particular attention to their linguistic sophistication and psychological plausibility. S/U or letter grading.

209C. Computational Semantics. (4) Lecture, four hours; preparation: basic course in logic. Requisite: course 185A or 209A. Study of algorithms to compute and reason with meanings of sentences and texts. Phenomena such as anaphor resolution, 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, course 210B can only be taken as direct continuation of 210A in same year. When there are multiple sections, continuation must be in same section. May be repeated for credit with topic change. 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 component will involve recording and analyzing intonation, and students learn to transcribe intonational elements. Letter grading.
212. Learnability Theory. (4) Lecture, four hours. Survey of some of 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.

213A. Grammatical Development. (4) Requisites: courses 200A, 200B. Recommended: course 130 or 233. Survey of theoretical perspectives and contemporary empirical research in development of syntax and other components of grammar, with particular emphasis on acquisition theory, linguistic theory, and issues of learnability.


213C. Linguistic Processing. (4) Lecture, four hours. Requisites: courses 165B and/or 200B. Recommended: courses 132 or 232, 201B. Survey of theoretical perspectives and contemporary empirical research in understanding of language (comprehension and/or production), with emphasis on syntactic processing, ambiguity resolution, effects of memory load, and relationship between grammar and processor. S/U or letter grading.

214. Survey of Current Syntactic Theories. (4) Lecture, four hours. Requisite: course 201B. Survey of several current syntactic theories, compared with one another and with theory discussed in course 201B, from point of view of theories’ relative descriptive and explanatory power. S/U or letter grading.

215. Syntactic Typology. (2 or 4) Lecture, four hours. Requisite: course 200B. Current results in word-order universals; cross-classification of world’s languages; cross-language properties of specific construction types, including relative clauses, passives, positive and negative coreference systems, agreement systems, deponents; types of sentence complements. S/U or letter grading.

216. Syntactic Theory III. (4) Lecture, four hours. Requisite: course 201B. Selected topics on syntactic theories of anaphora and quantification from the following areas: theory of locality conditions in binding theory; parametric variation in binding; quantifier movement; existential quantification and unselective binding strength; cross- and coreference 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 explores the nature and scope of knowledge of phonology, including theories of lexicon, relation between 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 201A. Current research and issues in phonological theory. Topics include structure of phonological representations, relations between representations, architecture of grammar, and explanations for phonological typology. S/U or letter grading.

220. Linguistic Areas. (4) Requisites: courses 120A, and 200A, 200B. 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, Aboriginal North America, Aborigines of South America, Fiji, East, etc.). May be repeated for credit with topic change.

222. Semantic Theory III. (2 or 4) Lecture, four hours. Requirement: course 210C. Introduction of developments in ontology of formal semantics, including plurals as formal object, events, situations, times, and degrees. Presentation of empirical motivation for these developments, and some cross-domain parallels supporting them. S/U or letter grading.

223. Linguistic Structures. (4) Lecture, four hours. Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200A, 165B or 200B. Phonological and grammatical structure of a selected language and its genetic relationships to others of its family. May be repeated for credit with topic change. S/U or letter grading.

224. Analyzing Historical Texts. (4) Seminar, four hours. Preparation: some knowledge of French (or one Romance language). Enforced requisite: course 120E. Course C224A is enforced requisite to course C224B. Course C224 is designed to prepare students to understand the development of texts in selected periods of history. May be repeated for credit with topic change.

225. Linguistic Structures. (4) Lecture, four hours. Requisites: courses 200A, 200B. Selected topics on syntactic theory, formal syntax, partial orders and lattices, cross-linguistic properties of specific construction types, including relative clauses, passives, positive and negative coreference systems, agreement systems, deponents; types of sentence complements. S/U or letter grading.

226. Computational Phonology. (4) Lecture, four hours. Introduction to computational models of phonology and phonological acquisition. Topics include finite state machines, probabilistic automata, over-constrained models, dynamic programming methods. Letter grading.

227. Research Design and Statistical Methods. (2 or 4) Lecture, four hours. Topics include identifying and defining research topics, selecting appropriate research design and measurements, designing student experiments, recording, analyzing, and interpreting data. S/U or letter grading.

228. Psycholinguistics and Language Acquisition. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 119A or 120A, 119B or 120B. Introduction to study of childhood bilingualism and its implications for understanding language 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 presentation, and submit graduate-level term paper. S/U or letter grading.

231A. Topics in Phonetics and Phonology. (4) Seminar, four hours. Requisite: course 200A. Course 210A, 203, or 204A may be required. Specialized topics in phonetics and phonology. Meets with course 251B. May be repeated for credit. Letter grading.

232A. Topics in Phonetics and Phonology. (2 or 4) Seminar, four hours. Requisite: course 200A. Course 210A, 201C, 214, 215, or 216 may be required. Specialized topics in syntax and semantics. Meets with course 252B. May be repeated for credit. Letter grading.

232B. Topics in Syntax and Semantics. (2) Seminar, four hours. Enforced requisite: course 200B. Course 214, 215, or 216 may be required. Specialized topics in syntax and semantics. May be applied toward MA degree requirements. Meets with course 252A. May be repeated for credit. S/U grading.

233A. Topics in Language Variation. (4) Seminar, four hours. Requisite: course 200B. Course 214, 215, or 216 may be required. Specialized topics in language variation. Meets with course 253B. May be repeated for credit. Letter grading.

233B. Topics in Language Variation. (2) Seminar, four hours. Requisite: course 110. Course 202 may be required. Specialized topics in language variation. May not be applied toward MA degree requirements. Meets with course 254B. May be repeated for credit. S/U grading.

234A. Topics in Linguistics. (4) Seminar, four hours. Requisites: courses 200A, 200B. Course 201A, 201B, 201C, 202, 203, 204A, 205, 206, 208A, 209B, 212, 213A, 213C, 214, 215, 216 or 218 may be required. Individual proseminars on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. Meets with course 254B. May be repeated for credit. Letter grading.

234B. Topics in Linguistics. (2) Seminar, four hours. Requisites: courses 200A, 200B. Course 201A, 201B, 201C, 202, 203, 204A, 205, 206, 208A, 209B, 212, 213A, 213C, 214, 215, 216 or 218 may be required. Individual proseminars on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. May not be applied toward MA degree requirements. Meets with course 254A. May be repeated for credit. S/U grading.

260A-260B-260C. Seminars: Phonetics. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. May not be applied toward MA or PhD degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

261A-261B-261C. Seminars: Phonology. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. May not be applied toward MA or PhD degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

262A-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 PhD degree requirements when taken for 2 units. May be repeated for credit. 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.
American Indian Linguistics
Seminar, (1 to 4 each) Seminar, two hours, fieldwork, four hours. Presentation of research on American Indian linguistics. Each course may be taken independently for credit. May not be applied toward MA or PhD degree requirements when taken for 1 unit. May be repeated for credit. S/U grading.

Linguistics Colloquium. (4) Preparation: completion of MA requirements. Varied linguistic topics, generally presentations of new research by students, faculty, and visiting scholars. S/U grading.

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.

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.


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 PhD degree requirements. S/U grading.

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 PhD degree requirements. S/U grading.

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 non-academic careers in linguistics. May not be applied toward MA or PhD degree requirements. S/U grading.

College Teaching of Linguistics. (2) Seminar, to be arranged. Designed for graduate students. Required of all new teaching assistants. Seminars, workshops, and apprentice teaching. Selected topics, including research, 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.

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.

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.

Directed Linguistic Analysis. (1 to 8) Preparation: completion of MA degree requirements. Intensive work with one or two students individually. May be repeated for credit. S/U grading.

Preparation for MA Comprehensive and PhD Qualifying Examinations. (1 to 8) Preparation: at least six graduate linguistics courses. May be taken only in ten times in which students expect to take comprehensive or qualifying examinations. May not be applied toward MA course requirements. May be repeated for credit. S/U grading.

Research for MA Thesis. (1 to 8) Research and preparation of MA thesis. May not be applied toward MA course requirements. May be repeated for a maximum of 8 units. S/U grading.

Research for PhD Dissertation. (1 to 16) Preparation: advancement to PhD candidacy. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

Swahili
Lower-Division Courses

1. Elementary Swahili. (Formerly numbered African Languages 1A.) Lecture, five hours. Major language of East Africa, particularly Tanzania. P/NP or letter grading.


7. 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.

8. 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.

9. Student Research Program. (1 to 8) Seminar (su- pervised 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


189. Honors Advos 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.

Honors Contracts. (1 Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division course lecture. 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.

Professors

David Aboody, PhD
Reza H. Ahmad, PhD
John W. Asker, PhD
Shlomo Benartzi, PhD
Corinne B. Benderly, PhD
Antonio E. Bernardo, PhD, Dean (Joel Fried Professor of Applied Finance)
Sushil Bikhchandani, PhD
Raphael B. Bucklin, PhD (Peter W. Mullin Professor of Management)
Bruce I. Carlin, PhD
Mikhail Chernov, PhD
Bhagwan Chowdhry, PhD
Charles J. Corbett, PhD (IBM Professor of Management)
Samuel A. Culbert, PhD
Magai A. Delmas, PhD
Aimee L. Diot Rossi, PhD
Sebastian Edwards, PhD (Henry Ford II Professor of International Management)
Andrea L. Eisfeld, PhD (Laurence D. and Lori W. Fink Endowed Professor of Finance)
Christopher L. Erickson, PhD
Craig R. Fox, PhD (Harold Williams Professor of Management)
Stuart A. Gabriel, PhD (Arden Realty Professor)
Mark J. Garrlage, PhD (Robert D. Beyer ’83 Term Professor of Management)
Mark S. Grinblatt, PhD (Japan Alumni Professor of International Finance)
Carla Hayn, PhD
John S. Hughes, PhD (Ernst and Young Professor of Accounting)
Uday S. Karmarkar, PhD (Los Angeles Times Professor of Management and Policy)
Edward E. Learner, PhD (Chauncey J. Medbery Professor of Management)
Douglas G. Lichtman, JD
Marvin B. Lieberman, PhD
Steven A. Lippman, PhD (George Robbins Professor of Management)
Francis A. Longstaff, PhD (Allostate Professor of Insurance and Finance)
Aman Mahajan, MD, PhD
John W. Mamer, PhD
Kevin F. McCordle, PhD
Daniel M. Oppenheimer, PhD (UCLA Anderson Dean’s Term Professor of Management)

Faculty Roster

Management

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### Professors Emeriti

- Michael J. Brennan, PhD (Goldyne and Irwin Hearsh Professor Emeritus of Money and Banking)
- Lee G. Cooper, PhD
- Bradford Cornell, PhD
- Sanford M. Jacoby, PhD
- Alfred E. Hofflander, PhD
- Ivo I. Welch, PhD (J. Fred Weston Professor of Finance)

### Senior Lecturers

- David S. Ravetch, MBA
- Eric H. Sussman, MBA

### Lecturers

- George J. Abe, MS
- Derek J. Alderton, MBA
- Julie Ann Gardner-Treloar, MBA
- Paul B. Habiib, MBA
- Gordon L. Klein, JD
- Danny S. Litt, MBA
- Jeff I. Scheinrock, BS
- John B. Ullmen, MPP, PhD
- Michael G. Williams

### Adjunct Professors

- William M. Cockrum, MBA
- Brian J. Farrell, MBA
- Janis S. Forman, PhD
- Robert F. Foster, MBA
- Gonzalo Freixes, JD
- George T. Geis, PhD
- Stephen A. Greene, MBA
- Jason C. Hsu, MEng
- Terry D. Kramer, MBA
- Robert M. McCann, PhD
- Gerald Nickelsburg, PhD
- Peter S. Pao, PhD
- David W. Wessels, PhD

### Adjunct Associate Professors

- Subramanian Ramanarayanan, MBA, PhD
- Loni N. Santikian, MA, PhD
- Andres Terech, PhD

### Accounting Minor

The Accounting minor provides students with a comprehensive accounting background; admission is competitive and based on overall UCLA grade-point average, grade-point average in pre-admission courses, and the grades in Management 1A and 1B. Decisions on admission to the minor are made by the Anderson School Accounting Area. Applications are accepted in fall, winter, and spring quarters. Nontransfer students must apply subsequent to completing 90 units. Transfer students must apply after completing two academic quarters (excluding summer sessions) at UCLA.

To enter the minor, students must (1) have a minimum cumulative UCLA grade-point average of 3.2, (2) complete all required pre-admission courses with a minimum course grade-point average of 3.2, and (3) receive grades of B or better in Management 1A and 1B. Repetition of more than one pre-admission course or of any pre-admission course more than once results in automatic denial of admission to the minor. Satisfying these requirements does not guarantee admission to the program, as only a limited number of students are admitted each year.

### Required Pre-admission Courses (31 units minimum):

- Economics 1, 2, any statistics course offered or considered transferrable to UCLA, Management 1A and 1B (former course 100 taken at UCLA may be substituted), Mathematics 3A or 31A, 3B or 31B or 31E, one Writing II course. If Management 1A and/or 1B are not taken at UCLA, students must complete courses 120A and 122 prior to admission to the minor.
Required Upper-Division Courses (36 units): Management 120A, 120B, 122, 127A, and three courses from 108, 109, 123, 124, 126, 127B, 127C, 128, 130A.

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 courses is subject to department approval and is considered only for the pre-admission courses. Only one pre-admission and one upper-division course repeat is allowed.

Each pre-admission and upper-division course must be taken for a letter grade; if taken on a Passed/Not Passed basis, it cannot be applied toward the minor program. Each upper-division course must be completed at UCLA. All courses applied toward minor requirements must receive a grade of C or better. Successful completion of the minor is indicated on the transcript and diploma.

Entrepreneurship Minor

See the Entrepreneurship minor for a description of the minor.

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 John E. Anderson Graduate School of Management offers Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Management, the Master of Science (MS) degree in Business Analytics, the Master of Business Administration (MBA) degree, and the Master of Financial Engineering (MFE) degree. The school also offers the Executive MBA Program (EMBA), Fully Employed MBA Program (FEMBA), and 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/Urban Planning MURP) 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. Valuation and recording of asset-related transactions, including cash, receivables, marketable securities, inventories, and long-lived assets. Current liabilities. 1B. Requisite: course 1A. Completion of balance sheet with emphasis on debit and credit analysis, including in-depth introduction to time value of money concepts. Introduction to partnership and individual income tax accounting.

19. Fiat Lux Freshman Seminars. (1 Seminar, one four-hour discussion 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 Seminars: Special Topics in Management. (1 to 4 Seminar, three hours; outside study, nine hours. Requisite: enrollment in a pre-admission course. Special permission. 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 counselor. Special topics in areas that extend concepts in lower-division courses, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Student Research Projects. (1 to 4) 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

108. Business Law. (4) Lecture, three hours. Not open to freshmen. Essentials of contracts, agency, partnerships, corporations, and other select areas of law in a business environment. Regulation of investments, multinational corporations, on international litigation, commercial transactions, international business legal environment, including ethical, legal, and other professional issues. Auditing of a complete set of financial statements. P/NP or letter grading.

122. Management Accounting. (4) Lecture, three hours. Requisite: 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 of goods manufactured; plant assets; depreciation; standard costs; cost variance analysis; profit-volume relationships and break-even analysis. P/NP or letter grading.

123. Auditing. (4) Lecture, three hours. Requisite: course 120B. 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 entities in all phases of economic activity, including employment, and personal decisions. Special emphasis on role of tax rules in capital 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 (oubound 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 process, role of partner, 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. Requisite: course 1B, one statistics course. Study of financial decision making by business firms, with emphasis on applications of economic and accounting principles in financial analysis, planning, and control. Extensive use of problems and cases to illustrate critical decision-making techniques required in business. P/NP or letter grading.

140. Elements of Production and Operations Research. (4) Lecture, four hours. Requisite: Mathematics 1AB, 3C. Principles and decision analysis related to effective utilization of production in manufacturing and nonmanufacturing activities. Ana-
lytical models and methods for allocation, transportation, inventory, replacement, scheduling, and facilities design. P/NP or letter grading.

142A. Information Technology in Accounting. (4) (Formerly numbered 142.) Lecture, seven and one half hours. Not open to freshmen. Introduction to role and use of modern techniques in management accounting, decision making, with focus on important types of models, their formulation and application, and insight and information that may be gained from use of modeling. Enables management to make more intelligent decisions for firms that are most applicable in business planning and decision making. Discussion of applications in area of accounting, finance, marketing, and operations, with focus on more fundamental understandings 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.

142B. Communication Technology, Programming, and Accounting. (4) Lecture, six hours. Preparation: intermediate Excel user. Requisite: course 142A (or former 142). Not open to freshmen. Hands-on experience in accounting uses of Microsoft Excel. Topics include creating data boxes in financial accounting, using multiple sheets with Excel formulas, preparing professional-quality reports, creating charts to interpret business results, and using Excel functions to evaluate accounting data. Exploration of utility of QuickBooks and functionality for small businesses. Offered in summer only. Letter or P/NP 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 investing in companies. Emphasis on decision-making and problem solving using case studies as basis for discussion of various analytical processes required to produce successful new product launch. May be repeated for credit. P/NP or letter grading.

161. Business Plan Development. (4) Lecture, three hours. Enforced requisite: course 160. Fundamentals of developing effective business plans, both in presentation and written form. Basic principles of designing and articulating plans for new products, marketing, production, service, operations, financials, management, and staffing functions of new startup businesses. How to develop well-written investment-quality business plans and financial statements. Examination of various analytical processes required to produce such plans, improve student writing and oral presentation skills, and formally present their business plans to audiences 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 invention into viable commercial products and services, with particular emphasis 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 commercial use. 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 between university technology transfer offices, researchers, technical experts, and early investors in commercialization space that might lead to spinoff startup, 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 managers 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 management of early-stage companies, with particular emphasis on capital formation of new ventures. Relationship between entrepreneurs and investors and discussion of different goals of founders and investors, including nature of negotiation and structure between parties over time. Letter grading.


167. Social Entrepreneurship. (4) Lecture, three hours. Designed for juniors/seniors. Examination of fundamental challenges and opportunities of 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 strategy and organizational theory 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 the 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 topics 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 suboptimal spending, mistakes investors make, and money and happiness. Letter grading.

180. Special Topics in Management. (4) Lecture, four hours. Topical courses of special interest to undergraduates that are designed for each term depending on particular interest of instructors or students. May be repeated for credit. P/NP or letter grading.

182. Leadership Principles and Practice. (4) Lecture, six hours. Preparation: availability, and in-spring best performance, persuading, and influencing others; leading high-performance teams; creativity and innovation; decision-making, and negotiating skills, both one-on-one and in groups. Organizational examples, simulations, and in-class exercises. 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 for final course 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 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 supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward requirements. Eligible 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 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 and led by lecture course instructor. Minimum of 4 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 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.

199. Directed Research in Management. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation of selected research topic under guidance of faculty mentor. Cullminating 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 model. An introduction to one approach to analytical thinking—forcing numerical and textual data into carefully formulated alternative models. Data studied include macroeconomic 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 social cost and benefit, detrimental damage, trademark infringement, brand value, and consumer demand. Focus on econometric thinking and problem solving using case studies as basis for learning.


209. Managing Complex Business Deals. (4 or 6) Lecture, three hours. Preparation: familiarity with basic vocabulary and concepts, including basic principles of accounting and valuation. Advanced course in business organization. Examination of structure of business transactions and allocation of control, risk, and return. Topics include warranties, debt and loan agreements, employment agreements, distribution and marketing agreements (including franchising), motion picture production/finance/distribution agreements, and joint venture arrangements. Emphasis on reading and focus on documents that incorporate terms of business transactions of deals. Concurrently scheduled with Law 239, S/U or letter grading.

209A-209B. Managing Complex Business Deals. (209A: 3 or 4/209B: 1 or 2) Lecture, three hours. Preparation: familiarity with basic vocabulary and concepts, including basic principles of accounting and valuation. Advanced course in business organization. Examination of structure of business transactions and allocation of control, risk, and return. Topics include warranties, debt and loan agreements, employment agreements, distribution and marketing agreements (including franchising), motion picture production/finance/distribution agreements, and joint venture arrangements. Emphasis on reading and focus on documents that incorporate terms of business transactions of deals. Concurrently scheduled with Law 239, S/U or letter grading.
223. Business Law for Managers and Entrepreneurs. (4) Lecture, three hours. Introductory course that uses practical approach to teach students to recognize, understand, and manage legal issues. Topics include contract law, litigation process and alternative dispute resolution, intellectual property law, business formation, corporate law, employment law, collateralized lending, and bankruptcy reorganizations. How to deal with potential legal issues before they become serious problems. S/U or S/U grading.

225. Law and Management of Nonprofit Organizations. (4) Same as Public Policy M229. Lecture, three hours. Introduction to important legal, financial, and management issues faced by nonprofit organizations. Topics include how to start nonprofit tax-exempt organizations, qualifying and maintaining tax-exempt status under IRC Section 501(c)(3), corporate governance, political and legislative activity restrictions, and strategic planning, fundraising, nonprofit accounting, and employment law. S/U or letter grading.

226. Special Topics in Accounting. (4) Lecture, three hours. Requires: course 403. Examination of advanced topics in accounting that arise in business combinations and international accounting practices, including principles underlying consolidated financial statements of unrelated subsidiaries and affiliate translations, translation of foreign exchange, and valuation of derivatives for hedging exchange risk. S/U or letter grading.


231C. Corporate Valuation. (4) Lecture, three hours. Requires: courses 408, 430. Lectures, discussions, and student presentations. Issues and analytical tools relevant to mergers, acquisitions, and valuation of corporate investments. Theories of discounted cash flow valuation (DCF) and relative valuation using market multiples. Strategies of practice to value different projects, including corporate and private equity managers and investors. Exploration of how real options affect investment decisions and how they can be identified and valued. Letter grading.

231D. Option Markets. (4) Lecture, three hours. Requires: courses 408, 430. Focus on understanding and explaining economic behavior in derivative markets. Ideal for students who are preparing for careers in consulting, private equity, and general management. S/U or letter grading.

231E. Managing Finance and Financing Emerging Enterprises. (4) Lecture, three hours. Requires: courses 230 (or 430), 403, 408. Designed for second-year graduate students. Emphasis on financial, control, and investment issues confronting rapidly growing, high-technology enterprises. Consideration and selection of financing vehicles that may be appropriate to securing organizations' money requirements. S/U or letter grading.

232A. Management of Business Enterprises. (4) Lecture, three hours. Requires: courses 230 (or 430), 408. Topics include applications of portfolio theory to investment decisions, performance evaluation, and basis of portfolio management. S/U or letter grading.


232E. Taxation and Management Decisions. (4) Lecture, three hours. Requires: courses 408, 430. Discussion of regulatory environment for both market and credit risk management, data necessary to manage these risks, techniques 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 risk analysis that affect risk management, such as operation risk, liquidity risk, commodity risk, weather risk, and model risk. Letter grading.

232F. Behavioral Finance. (4) Lecture, three hours. Requires: course 408. Introduction to and explanation of evidence of anomalous return behavior found in U.S. equities markets. Presentation of some paradigms of stock price movements that 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 inherent to investors. Exploration of some recent researchs on behavior, analysis and applications in finance literature. Presentation of latest evidence on whether individual investors trade and how individual and institutional investors form their portfolios. Letter grading.


235. Venture Capital and Private Equity. (4) Lecture, three hours. Requires: courses 408, 430. Use of cases to study entrepreneurial finance and venture capital. 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 are structured and why investors and entrepreneurs choose certain contractual arrangements. Discussion of role of underwriting economic behavior in understanding structure and operations of markets to be dealt with in detail. S/U or letter grading.

236. Special Topics in Finance. (4) Lecture, three hours. Requires: courses 230 (or 430), 403, 408. Selected topics in finance literature, empirical studies, and financial policy. May be repeated for credit with instructor change. S/U or letter grading.

240E. Managing Entrepreneurial Operations. (4) Lecture, three hours. Requires: 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.
Lecture, three hours. Requisite: course 410. Business environment today is characterized by globalized operations, intense competition, rapid technological change, and short product life cycles. Consequently, firms can no longer afford to operate in isolation. 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 and competitive reaction. Within this framework, development of key elements in annual marketing processes. Letter grading.

260A. Customer Assessment and Analytics. (4) Lecture, three hours. Enforced requisite: course 411. Decision-oriented course concerned with marketing research and data analytics. Techniques for extracting, cleaning, analyzing, and utilizing technology and knowledge assets. Study of challenges of emerging digital economy. Frameworks and data-analytical 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 post-purchase purchasing, (3) mid-maturity purchase and transaction patterns, and (4) customer attrition or switchover to other product lines. S/U or letter grading.


261B. Global Marketing Management. (4) Lecture, three hours. Requisite: course 411. Analysis of opportunities, distinctive characteristics, and emerging trends in foreign markets, including exploration of alternative methods and strategies for entering foreign markets; organizational planning and control; impact of social, cultural, economic, and political differences; and problems of adapting American marketing concepts and methods. Letter grading.


263A. Consumer Behavior. (4) Lecture, three hours. Requisite: course 411. Study of nature and determinants of consumer behavior. Emphasis on influence of sociopsychological factors such as personality, social groups, demographic variables, social class, and culture on formation of consumers’ attitudes, consumption, and purchase patterns. 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 architectures, 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, existing projects. 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 generation and selection, detailed design, 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. Requisite: course 411. Detailed 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 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 digital marketing context. Frameworks and data-analytical 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 post-purchase purchasing, (3) mid-maturity purchase and transaction patterns, 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 subjects vary each term depending on 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 Medical Technology. (4) (Same as Bioengineering M233A.) Lecture, three hours; outside study, nine hours. Designed for graduate and professional students in engineering, dentistry, design, law, management, and medicine. Focus 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—innovation to invention to investment. New medtech devices that increase quality of clinical care and result in improved patient outcomes in hospital system. Introduction to intellectual property basics and working medtech business models. 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. Development of medtech solutions for unmet clinical needs previously identified in course M271A. Steps necessary to commercialize viable medtech solutions. Exploration of concept selection, business plan development, intellectual property filing, financing strategies, and device prototyping. Letter grading.


273. Current Topics in Entertainment, Media, and Sports. (2) Seminar, two hours. Designed for 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.
Current Topics in Emerging Technologies and Markets. (2) Seminar, two hours. Designed for graduate students. Examination in depth of current emerging technologies and related market developments. Topics vary. May be repeated for credit. S/U or letter grading.

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, receiverships, prepayment, foreclosure, priorities, California antideficiency legislation, impact of borrower bankruptcy, construction lenders, construction lending, future advances lending, and secondary market. S/U or letter grading.

277A-277B. Real Estate Finance Law. (277A: 3 or 4/277B: 1 or 2) Lecture, three hours. Course 277A is enforced requisite to 277B. 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, receiverships, prepayment, foreclosure, priorities, California antideficiency legislation, impact of borrower bankruptcy, construction lenders, construction lending, future advances lending, and secondary market. Concurrently scheduled with Law 209. In Progress (277A) and S/U or letter (277B) grading.

Urban Real Estate Financing and Investing. (4) Lecture, three hours. Requisites: courses 438, 439. 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.

Cases in Real Estate Investments. (4) Lecture, three hours. Requisites: courses 438, 439. 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 center, and hotel properties), real estate taxation, real estate law, development process, securitization, REITs, and leasing and workout of troubled properties. S/U or letter grading.

Entrepreneurial Real Estate Development. (4) Lecture, three hours. Requisites: courses 278A (or 279A), 408, 430. Introduction to various aspects of real estate and development perspectives of entrepreneur and investor. Coverage of all types of developments, including single family, multifamily, 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.


People in Organizations. (4) Designed for graduate students. Introduction to different philosophical perspectives for understanding human behavior. Theories and concepts important for understanding human behavior in organizations, as well as managerial implications of individual, group, and social behavior. Special attention to knowledge about satisfaction, motivation, and productivity in organizations.

Optimizing Team Performance. (4) Lecture, three hours. Enforced requisites: courses 409, 414A. Optimization of team performance by diagnosing complex team dynamics and taking appropriate action to improve team performance. Emphasis on helping students strengthen their teamwork skills in ways that are proven to increase effectiveness and performance of teams. Letter grading.

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 cultural management. Examination of transitions that individuals must make as organizations grow. S/U or letter grading.


Small Business Management. (4) Exploration of significant special issues in management of small enterprises. Emphasis on identification and analysis of characteristic operating problems of small firms and application of appropriate methods or techniques for their solution.

Corporate Entrepreneurship. (4) Inquiry into nature of entrepreneurial and effective implementational strategies in large industrial enterprises. Emphasis on organizational effects aimed at identification, development, and exploitation of technical and organizational innovations, management of new product or process developments, and effective new venture management in a corporate context.


International Business Management. (4) Discussion, three hours. Focus on organizational analysis and resolution of managerial issues of policy and action within context of a multinational corporation, with emphasis on problems of adaptation to different sociocultural, cultural, legal, political, and economic environmental characteristics on planning, structuring of organizational relationships, and coordination and control in multinational firms. S/U or letter grading.

International Business Strategy. (4) Discussion, three hours. Analysis of key strategic problems encountered by multinational corporations entering foreign markets. Application of concepts and theories addressed in other courses to complex cases on international business or by use of a complex simulation on international business.

International Business Law. (4) Requisites: courses 295A, 296A. Legal environments in which international business operates; overseas business relationships and organizations; antitrust, taxation, transfer of capital, and technology regulations; patent, trademark, and copyright protection; resolution of international business disputes; expropriation of foreign investments; international business and government relations.

International Business Negotiations. (4) Requisite: course 296A. Exploration of international business negotiations of multinational enterprises with governmental agencies and foreign-based firms on a wide range of issues, such as establishment/dissolution of joint ventures, extent of foreign ownership/management control, terms/conditions for technology transfer, investment incentives.

Business and Economics in Emerging Markets. (4) Lecture, three hours. Requisites: course 295A or 405. Analysis of changing economic, political, demographic, and sociocultural conditions in developing countries as they affect the business environment. Processes of economic growth, market-orientation reforms, and creation of domestic capital markets, inflation and stabilization programs, identification of business risks and opportunities, as well as tools needed to manage firms under these conditions. S/U or letter grading.

Special Topics in Management. (4) Lecture, three hours. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. Letter grading.

Special Topics in Management. (2) Lecture, 90 minutes. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. Letter grading.
298F. Special Topics in Management. (1) Lecture, one hour. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. Letter grading.

299G. Special Topics in Management. (4) Lecture, three hours. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

298I. Special Topics in Management. (1) Lecture, one hour. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. 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.

400. Mathematics for Management. (4) Lecture, three hours. Designed for graduate students. General mathematics review for MBA students. Fundamental mathematics, including topics from algebra, differential calculus in single and multiple variables, logarithmic and exponential functions, probability, and statistics; applications, including economic theory, finance, time value of money, inventory management, linear programming, and mathematical models. S/U grading.

402. Data and Decisions. (4) Lecture, three hours. Topics include probabilities, random variables (expectation, variance, correlation, normal random variables), decision trees, estimation, hypothesis testing, and multiple regression models. Emphasis on actual business problems and data. Letter grading.


421A. Communication Development for Leaders. (2) Formerly numbered 421.) Lecture, three hours. Course 421A is requisite to 421B. Focus on communication basics and tailored to students’ needs—entrepreneur, interpersonal communications, or public speaking. Students learn skills required to become successful presenter; how to present differing types of materials, apply communication theory and strategy to organize information content, and effectively deliver presentations to varied audiences; how to apply visual and verbal messaging research theory while analyzing audiences, organize and target messages for specific impact, and communicate these messages in persuasive manner. Letter grading.

421B. Communication Development for Leaders II. (2) Lecture, three hours. Requisite: course 421A. Focus on providing tools and skills that allow students to excel in communicating their vision, inspiring and gaining commitment from stakeholders, and impressing investors and investors. Course materials are grounded in empirical research. Skills and techniques learned are broadly generalizable. Experiential exercises to enhance students’ abilities in oral and written communications. Study builds on managerial communication skills from Communication Development for Leaders (course 421A). Letter grading.

422. Analysis and Communications. (4) Discussion, three hours. Designed for graduate students. Study and practice of oral and written communication skills; such as presentation delivery techniques, visual and verbal persuasion principles, building arguments with supporting evidence, art of business storytelling, and other related topics; focus on individual student presentations. Letter grading.

425. Advanced Management Communication. (4) Lecture, three hours. Advanced course on business presenting and management communication. Preparation, presentation, and delivery of oral presentations, individual and team presentations to varied audiences. Examination of special topics in communication. S/U or letter grading.

427A-427B. Global Access Program. (5–5) (Formerly numbered 444B–444.) Fieldwork, 60 hours. Requisites: courses 402, 403, 405, 408, 409, 410, 411, 414A, 420. Limited to Fully Employed MBA program students. Must be taken in Summer and Fall quarters of 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 Process (427A) and Letter (427B) grading.


440. International Preorientation. (1) Lecture, six hours. Limited to international students in MBA program. Intensive communication workshop that meets 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 grading.

444A. Introduction to Applied Management Research. (2) Lecture, two hours. Limited 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 444B and 444C).

444B-444C. Applied Management Research: Two-Quarter Plan. (4–4) Fieldwork, four hours. Limited to full-time MBA program students. Must be taken after completion of first year in program. Projects include: (1) pursuit of consulting opportunities with companies, nonprofit organizations, or government agencies; 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 Process (444B) and Letter (444C) grading.

445. Applied Management Research. (8) Fieldwork, eight hours. Must be taken in second year (or its equivalent for part-time students). Supervised study of an organization, including establishment of client/consultant relationships, identification of problems or stra-
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. Summer and fall section of MBA program senior associate dean or other supervising faculty adviser, students perform supervised practical experience or fieldwork in organization as intern or fellow. Execution of prescribed work assignments (1 unit) pursuant to details and objectives of fieldwork program that includes reporting and assessment of fieldwork experience through combination of written and oral report, 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 up 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 for students to enhance their knowledge of region 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. Preparation: Course 457A. Seminar, two hours; fieldwork, one hour. Four-term course. Faculty-guided portfolio-management implementation. Back testing of investment strategy. Visits to portfolio management firms to gain expert guidance. In Progress grading (credit to be given only on completion of courses 457B, 457C, and 457D).

457B. Fieldwork in Investment Management. (2) Seminar, two hours; fieldwork, one hour. Four-term course. Monitoring of implemented strategy. Documentation and analysis of portfolio performance. Development of new strategy for incoming class. In Progress grading (credit to be given only on completion of course 457D).

457D. Fieldwork in Investment Management. (2) Seminar, two hours; fieldwork, 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 requisite to 458B. Taught in 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, 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, and processes of conducting business 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. Preparation: 12 units of external financial reports for evaluating corporate performance and use of accounting information for internal planning and control. S/U or letter grading.

461A-461B. Negotiations Behavior. (2–2) Lecture, three hours. Course 461A is enforced requisite to 481B. Limited to Global Executive MBA students. Preparation: 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 analyze contexts for most effective application of these skills. In Progress (461A) and letter (461B) grading.

464A-464B. Management of Technology and Innovation. (2–2) 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. S/U or letter grading.

472B. Customer Information Strategy. (4) Lecture, four hours. Limited to Executive MBA program students. Exploration of innovation 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.

478. Macroeconomics and Economic Forecasting. (4) Lecture, four hours. Limited to Executive MBA program students. Macroeconomic theory and its application to business forecasting. Major economic indicators and historical patterns of U.S. and global economies; theoretical tools that business economists use to analyze impacts of monetary and fiscal policy; macroeconometric techniques applicable to business decisions. S/U or letter 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 463.) Lecture, four hours. Limited to Executive MBA program students. Taught in Anderson building, with emphasis on managerial interpretation of statistical summary of data. Classical statistics covered through multiple regressions to support courses' focus on business and marketing applications. Emphasis on statistical models and real-world applications of statistical analyses to decision making under uncertainty. S/U or letter grading.


484A-484B. Management of Technology and Innovation. (2–2) 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. S/U or letter 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. Enforced requisites: courses 487A, 487B. 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.

489. Entrepreneurship and Venture Initiation. (4) Lecture, 90 minutes. Limited to Executive MBA program students. Introduction to entrepreneurship, including but not limited to topics of new venture formation, criteria for new venture formation, and issues required for entrepreneurship that requires financing or management of intellectual property. Terminology used by lawyers, accountants, venture capitalists, and other stakeholders when forming and managing 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.


in antitrust, 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 response to Stage 4 innovation.

408. Financial Policy for Managers. (4) (Formerly numbered Management 466A.) Lecture, four hours. Limited to Executive MBA program students. Modern financial management deals with decision making under uncertainty. Concepts of financial management include portfolio investment decisions, financial institutions, and international financial management. Focus on learning and the tools and applying them in casework. S/U or letter grading.

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: Concepts, Strategies, and Policies. (4) (Formerly numbered Management 474.) Lecture, three hours. Limited to Executive MBA program students. Analysis of strategic and operational 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. Analysis of 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.

414A. Leadership Foundations I. (2) (Formerly numbered Management 461B.) 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 development. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading.

414B. Leadership Foundations II. (1) (Formerly numbered Management 461B.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 414A, with focus on development of self-assessment and self-efficacy 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.

414C. Leadership Foundations III. (1) (Formerly numbered Management 461D.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 414B. Further exploration of leadership strengths and weaknesses, with emphasis on individual peer management, individual goal setting, and goal achievement. Readings, classes, decision simulations, peer coaching, and discussions. S/U grading.

414D. Leadership Foundations IV. (1) (Formerly numbered Management 460D.) 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, networks, and organizational design. Readings, classes, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 414E).

414E. Leadership Foundations V. (1) (Formerly numbered Management 451E.) 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 formulating a corporate competitive strategy. Emphasis on 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 470D.) 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 lectures, guest speakers, panel discussions, and company site visits. Exposure to economic, legal and political environments, major industries and businesses, local culture, key historical events, and many aspects 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 students. Address 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 experientially through participatory simulations and post-hoc analyses. Letter 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. Letter 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. S/U 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.

445A. Introduction to Strategic Management Research. (2) 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 courses 445B and 445C).

445B. Strategic Management Research. (4) (Formerly Management 470B.) Fieldwork, four hours. Limited to Executive MBA program students. Preparation of strategic overview of selected company entailing collection 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 and/or surveys. 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 445A. Preparation of final reports and evaluation of student efforts by corporate personnel. S/U or letter grading.
strategies, Economic, heuristic, and social process approaches to policy formulation, environmental analysis, and organizational appraisal. Senior management's role in managing policy process. Letter grading.

407A-407B. Entrepreneurship and Venture Initiation I, II. (2-2) (Formerly numbered Management 487A-487B.) Lecture, 90 minutes. Course 407A is required to 407B. Limited to UCLA-NUS Executive MBA program students. Introduction to basic tools and jargon required for entrepreneurship that requires financial or managerial process and of intellectual property. Terminology used by lawyers, accountants, venture capitalists, and other investors in financial, market and financial new companies. Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. In Progress (407A) and letter (407B) grading.

410. Logistics and Operations Management. (4) (Formerly numbered Management 474.) Lecture, three hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

412. Management of Technology and Innovation. (4) (Formerly numbered Management 483.) Lecture, three hours. Problems of managing technological innovation in Asia. Topics include incorporation of technological consideration into strategy, adoption of technological innovation, promoting innovation through organizational design and leadership, e-business, and m-business. Letter grading.

439. Selected Topics in Management. (4) Seminar, six hours. Limited to UCLA-NUS 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 UCLA-NUS 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 UCLA-NUS 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 UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U or letter grading.
443. Selected Topics in Management. (2) Seminar, three hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

444. Selected Topics in Management. (1) Seminar, two hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

445A--445B. Management Practicum, (2--2) (Formerly numbered Management 471A--471B.) Lecture, three hours. Two-term individual or group (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 letter (445B) grading.

Management–Master of Financial Engineering

Graduate Courses

400. Fundamentals of Investments. (2) (Formerly numbered Management 237B.) Lecture, three hours. Limited to Master of Financial Engineering program students. Introduction to asset pricing and portfolio choice, standard discounted cash flow approaches, and no-arbitrage framework for valuing financial securities. Basic paradigms of asset pricing, such as capital asset pricing model (CAPM), arbitrage pricing theory (APT), and Fama–French Three-Factor model. Concepts from the Fundamental partial differential equation representations of derivatives markets, and recent innovations in derivative markets. S/U or letter grading.


405. Computational Methods in Finance. (4) (Formerly numbered Management 237G.) Lecture, three hours. Limited to Master of Financial Engineering program students. Quantitative and computational tools used in finance, including numerical techniques such as implementation of binomial and trinomial option pricing, lattice algorithms for computing derivative prices, and minimization algorithms for pricing American options, and numerical solution of partial differential equations that appear in financial engineering. S/U or letter grading.

406. Derivatives 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, analyses, and technical tools of quantitative finance used in these markets. Derivatives are both exchange traded and over-the-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 interrelationships, with emphasis on arbitrage relations, valuation, and hedging with derivatives. Implementation of derivatives trading strategies, perspective of corporate securities as derivatives, functions of derivatives in securities markets, and recent innovations in derivative markets. S/U or letter grading.


409. Financial Risk Measurement and Management. (4) (Formerly numbered Management 237I.) Lecture, three 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.

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, to be arranged. Preparation: completion of one term of MFE program. 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 assignments pursuant to defined program of study that may include formal coursework. May not be applied toward MFE degree requirements. S/U or letter grading.

431. 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.


442. SQL and Basic Data Management. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Introduction to and use of SQL (Structured Query Language) syntax and constructs 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). S/U or letter grading.

443. Optimization. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Application of mathematical, economic, financial, and marketing principles to key management decisions within organizations. Algorithmic tools for better understanding of external business environment in which organizations operate. S/U or letter grading.


445. Prescriptive Models and Data Analytics. (4) Lecture, three hours. Limited to Master of Science in Business Analytics students. Fundamental tools in data analytics, including experimental design and analysis, regression analysis, and model design, and how to implement these approaches using statistical analysis package R. S/U or letter grading.

446. Data Analytics Industry Seminar I. (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.

447. Operations Analytics. (4) Lecture, three hours. Limited to Master of Science in Business Analytics students. How business analytics can be utilized 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.

448. Competitive Analytics. (4) Lecture, three hours. 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.

449. 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, understand, and estimate aspects of consumers' decision-making process. Introduction to market forecasting models and consumer-choice models. S/U or letter grading.


412. Business Analytics Supervised Project. (2) Fieldwork, three hours (five weeks). 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 communication skills and delve deeply into areas of interest beyond classroom. Students learn strategy, business consulting, entrepreneurship, business plan development, primary research collection and analysis, market assessment, financial analysis, and planning. 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 strategic 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 across 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 design and management of health care systems and operations, using tools such as regression analysis, linear optimization, queuing theory, decision analysis, Monte Carlo simulation, and machine learning techniques. Identification of key operational challenges, health care managers' analytics techniques for improving efficiency in variety of health care settings, discussion of applications of data analytics and operations management in health care industry, and practical experiences 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 inform strategic decisions; and relying on enhanced data analytics such as simulation, optimization, and analytics for better understanding of consumer behavior. S/U or 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 analysis, 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. Covers all algorithmic aspects of solving fraud problem, in particular how to approach and design algorithmic solution. Focus on algorithm development and address software-engineering aspects of building and fielding fraud solution. Topics covered are background for building and designing fraud detection models 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 analysis 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, RStudio and its various packages for regression and time series econometrics analysis and forecasting models. S/U or letter grading.

Management—PhD Graduate Courses

200. Economics of Decision. (4) (Formerly numbered Management 203A.) Discussion, three hours. Preparation: basic probability theory. Basics of single-person decision theory and introduction to noncooperative game theory. Examination in some detail of von Neumann-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.


201B. Theory and Application of Regression Analysis. (4) (Formerly numbered Management 204B.) Lecture, three hours. Recommended requisite: course 201A. Designed for PhD students. Introduction to general regression analysis. Linear model, maximum likelihood and asymptotic tests, endogeneity, instrumental variables, differences-in-differences, regression-discontinuity design, propensity score matching, limited dependent variable models, introduction to panel data. S/U or letter grading.


202A-202B-202C. Accounting Workshops. (1–1–2) (Formerly numbered Management 229A-229B-229C.) Lecture, four hours. Recommended 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 organizational behavior. Active participation and intellectual interchange encouraged through discussion of papers in sessions prior to workshop, as well as 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. Designed 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, replicate, and critique. In Progress (203A) S/U or letter grading (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 finance research seminars present in Management colloquium format by leading scholars in finance. Active participation and intellectual interchange encouraged through discussion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U grading.


206A-206B-206C. Research Seminars: Management and Organizational Behavior. (1–1–2) (Formerly numbered Management 258X-258Y-258Z.) Seminar, two hours. Designed for PhD students. 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 organizational behavior. Active participation and intellectual interchange encouraged through 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. Required of all students during first two years of their PhD work. Series consists of number of leading scholars in marketing and related disciplines who make presentations to marketing faculty and PhD students. Active participation and intellectual interchange that helps students gain richer perspective on field of marketing. In Progress (207A, 207B) and S/U or letter grading (207C) grading.

208A-208B-208C. Global Economics and Management Workshops. (1–1–2) (Formerly numbered Management 289X-289Y-289Z.) Seminar, 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 economics. Active participation and intellectual interchange encouraged through 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 298X-298Y-298Z.) Lecture, three hours. Designed for PhD students. Intended to develop ability to critically evaluate research in fields relevant to study of management and strategy. Papers presented in colloquium format by leading scholars in management strategy and policy. Active participation and intellectual interchange encouraged through discussion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U grading.

231. Network Flows and Integer Programming. (4) (Formerly numbered Management 298X-298Y-298Z.) Lecture, three hours. Preparation: linear programming. Survey course to (1) lay foundations for more advanced study of graphs, network flow models, and integer programming models and their applications, (2) establish connections between these technical foundations and real problems drawn from many areas of management, and (3) build professional skills needed to apply these tools. S/U or letter grading.
232. Behavior under Uncertainty. (4) (Formerly numbered Management 212.) Lecture, three hours. Designed for PhD students. Exploration of foundational research and current controversies in behavioral literature on judgment and decision making under uncertainty. S/U or letter grading.

233. Introduction to Multivariate Analysis. (4) (Formerly numbered Management 213C.) Lecture, three hours. Preparation: working knowledge of differential and integral calculus of several variables, basic probability theory of one-dimensional statistical models. Introduction to use of multivariate models in management research to organize and represent information; interpretation of multivariate exploratory models (e.g., principal axes and factor analysis models); survey of multivariate statistical procedures (e.g., multiple discriminate analysis, multivariate analysis of variance, canonical correlation, and confirmatory factor models). S/U or letter grading.

234. Special Topics in Accounting. (4) (Formerly numbered Management 229A.) Lecture, three hours. Preparation: doctoral standing or consent of instructor. Examination in depth of problems or issues of current concern in accounting, such as application of information economics and principal-agent model to accounting. S/U or letter grading.


236. Theoretical Models in Accounting. (4) (Formerly numbered Management 229C.) Lecture, three hours. Major theoretical paradigms characterizing analytic modeling in accounting. Emphasis on financial accounting applications. Discussion focuses on economic intuition as reflected by key tensions and related insights. Possible examination of mathematical expressions that 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. Major theoretical paradigms characterizing analytic modeling in accounting. Emphasis on financial accounting applications. Discussion focuses on economic intuition as reflected by key tensions and related insights. Possible examination of mathematical expressions that can be learned from models. Letter grading.

239. Empirical Asset Pricing. (4) (Formerly numbered Management 239C.) Lecture, three hours. Focus on measuring and understanding risk premiums in financial markets. Study of evidence pertaining to pricing kernel and applied theoretical developments that are motivated by evidence. S/U or letter grading.


241A. Models for Operations Planning, Scheduling, and Control. (4) (Formerly numbered Management 242A.) Lecture, three hours. Designed for PhD students with some knowledge of mathematical programming and stochastic processes. Foundations of operations planning, scheduling, and control, with emphasis on model applications and their applications in aggregate planning, work force scheduling, inventory management, and detailed operations scheduling and control. S/U or letter grading.


242. Special Topics in Decisions, Operations, and Technology Management. (4) (Formerly numbered Management 245C.) Lecture, three hours. Designed for MBA and PhD students. Studies of advanced subjects of current interest in decisions, operations, and technology management. Emphasis on recent developments in management science. Topics vary each term and have included strategy for information intensive industries, empirical research in operations management, analytical methods of operation research, and management in information economy, and models for medical management. May be repeated for credit with topic change. S/U or letter grading.

243. Individuals and Groups in Organizations. (4) (Formerly numbered Management M259A.) (Same as Psychology M222E.) Lecture, three hours. Designed for graduate students. Doctoral-level survey of classical 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 content, structure, and culture. S/U or letter grading.

244. Advanced Studies in Human Resource Management. (4) (Formerly numbered Management 259B.) Lecture, three hours. Designed for graduate students. Doctoral-level survey of research literature assessing how organizations utilize human resources to enhance individual, group, and organizational effectiveness. Current 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. Markets and 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 macro-level organizational topics related to 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 marketing thought. Issues pertaining to 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 introduction, pricing strategies, channel policy, promotion decisions, and sales force management examined critically. Review of both quantitative and behavioral approaches to studying these issues. S/U or letter grading.

248. Quantitative Research in Marketing. (4) (Formerly numbered Management 269C.) Lecture, three hours. Designed for PhD students in management 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.) Seminar, 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 one or two topics in current research and theory. May be repeated for credit. S/U or letter grading.

M251. Research and Development Policy. (4) (Formerly numbered Management M252A.) Same as Public Policy M280A.) Lecture, three hours. Examination of research and development as process and as element of goal-oriented organization. Factors affecting innovation and invention; 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.

252. Special Topics in Management Theory. (4) (Formerly numbered Management 298A.) Lecture, three hours. Designed for PhD students. Examination in depth of problems or issues of current concern in management theory. Emphasis on recent contributions to theory, research, and methodology. Of special interest to advanced PhD candidates, academic staff, or distinguished visiting faculty. May be repeated for credit. S/U or letter grading.


255. Information and Trading in Financial Markets. (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.

MATERIALS SCIENCE AND ENGINEERING

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Jane P. Chang, PhD (William Frederick Seyer Professor of Materials Electrochemistry)
Yong Chen, PhD
Bruce S. Dunn, PhD (Nippon Sheet Glass Company Professor of Materials Science)
Nasr M. Ghoniem, PhD

560 / Materials Science and Engineering
Engineering major. A joint major field, ceramic and polymer science as part of the Materials produced to the basic principles of metallurgy and ce
Materials Science and Engineering leads to the BS
The undergraduate program in the Department of
requirements.

sional, property, quality control, and economic
fabrication, and optimal selection of engineering
materials science is all about.
the understanding and control of the microstruct
ure of solids. Microstructure is used broadly in ref
ence to electronic and atomic structure of sol
ids—and defects within them—at size scales rang
ing 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 mac
roscopic 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 dimen
sional, 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 intro
duced to the basic principles of metallurgy and ce
ramic and polymer science as part of the Materials
Engineering major. A joint major field, Chemistry/
Materials Science, is offered to students enrolled in
the Department of Chemistry and Biochemistry (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 engineer
ing 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 mate
rials and strategies and methodologies of using mate
rials properties in the materials selection process.
Students learn and work independently and prac
tice leadership and teamwork in and across disci
plines. They are also expected to communicate ef
fectively in oral, graphic, and written forms.

Materials 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 poly
mers, as well as the design, fabrication, and testing
of metallic and other materials such as oxides, glasses, and fiber-reinforced composites, are in
cluded in the course contents.

Learning Outcomes
The Materials Engineering major has the following learning outcomes:
• Application of knowledge of mathematics, natu
ral science, and engineering to analysis of mate
rials 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 communica
tion
• 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 Engineer
ing 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, Ma
terials Science and Engineering 104, 110, 110L, 120, 130, 131L, 132, 143A, 150, 160; one upper-division
mathematics course selected from Civil and Envir
onmental Engineering 103, Electrical and Com
puter Engineering 102, Mathematics 132, Mecha
nical and Aerospace Engineering 182B, 182C; two lab
oratory 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) se
lected 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 (12 units) from Chemical Engineering
CM114, Civil and Environmental Engineering 130,
135A, Electrical and Computer Engineering 2, 123A,
123B, Materials Science and Engineering 111, C112, 121,
122, 151, 161, 162, Mechanical and Aerospace Engi
neering 156A, 166C, plus at least one elective course (4 units) from Chemistry and Biochemistry 30A,
304L, Electrical and Computer Engineering 131A, Materials Science and Engineering 170, 171, Ma
thematics 170A, or Statistics 100A.
For information on UC, school, and general educa
tion requirements, see the College and Schools chapter.

Electronic Materials 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 Engineer
ing 10, 90L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B
(or Mechanical and Aerospace Engineering 82); Physics 1A, 1B, 1C.

The Major
Required: Electrical and Computer Engineering 100, 101A, 121B, Materials Science and Engineering 104,
110, 110L, 120, 121L, 122, 130, 131L, 192, Mechanical
and Aerospace Engineering 101; one upper-divi
sion mathematics course selected from Civil and Envi
ronmental Engineering 103, Electrical and Com
puter Engineering 102, Mathematics 132, Mecha
nical and Aerospace Engineering 182B, 182C; either Materials Science and Engineering 150 or 160 and
one course (4 units) from Electrical and Computer
Engineering 123A, 123B, Materials Science and Engi-
Chapter 9

In many cases, more detailed guidelines may be found in the program requirements, see 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. Development of new materials vital to advanced technology. Microstructural analysis and various material properties discussed in conjunction with such applications as biomedical sensors, pollution control, and electronics. 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.

90L. Physical Measurement in Materials Engineering. (2) Laboratory; four hours; outside study, two hours. Various physical measurement methods used in materials science and engineering. Mechanical, thermal, electrical, magnetic, and optical techniques. 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

104. Science of Engineering Materials. (4) Lecture; three hours; discussion; one hour; outside study, eight hours. Requisites: Chemistry 20A, 20B, 20L, Physics 1A, 1B. General introduction to different types of materials used in engineering designs: metals, ceramics, plastics, and composites, relationship between structure (crystals 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; seven hours. Enforced requisites: Chemistry 20A, 20B, Physics 1C. Introduction to underlying science encompassing structure, properties, and fabrication of technological materials. New phenomena that emerge in very small systems (typically with feature sizes below few hundred nanometers) explained using basic concepts from quantum chemistry. Chemical, optical, and electronic properties, electron transport, structural stability, self-assemble, templated assembly and applications of various nanostructures such as quantum dots, nanoparticles, quantum wires, quantum wells and multilayers, carbon nanotubes. Letter 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 requisite: course 104. Modern methods of materials characterization: fundamentals of crystallography, properties of X-rays, X-ray scattering techniques; powder method, crystal structure determination, high-resolution X-ray diffraction methods; X-ray spectroscopy; design of materials characterization programs. Letter grading.

110L. Introduction to Materials Characterization A Laboratory. (2) Laboratory; four hours; outside study, two hours. Enforced requisite: course 104. 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.

111. Introduction to Materials Characterization B (Electron Microscopy). (4) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisites: courses 104, 110. Characterization of microstructure and microchemistry of materials; transmission electron microscopy; reciprocal lattice, electron diffraction, stereographic projection, direct observation of defects in crystals, replicas; scanning electron microscopy: emissive and reflective modes; chemical analysis; electron optics of both instruments. 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, electronic device, introduction to band theory and Schrödinger wave equation, Crystal bonding and lattice vibrations. Mechanisms and characterization of electrical conductivity, optical absorption, magnetic behavior, dielectric properties, and p-n junctions. Letter grading.

121. Materials Science of Semiconductors. (4) Lecture; four hours; discussion; one hour; outside study, seven hours. Enforced requisite: 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.

121L. Materials Science of Semiconductors Laboratory. (2) Lecture; 30 minutes; discussion, 30 minutes; laboratory; two hours; outside study, three hours. Enforced corequisite: course 121. Experiments conducted on materials characterization, including optical properties of contact resistance measurements, and thin film biaxial modulus and CTE. Letter grading.

122. Principles of Electronic Materials Processing. (4) Lecture; four hours; discussion; one hour; outside study, seven hours. Enforced requisite: course 104. Design and processing of basic integrated circuit materials for device processing; preparation and characterization of silicon, III-V compounds, and films. Discussion of principles of CVD, MOVD, 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 104. Summary of thermodynamic laws, equilibrium, solution and phase diagrams, glass transitions. Letter grading.

131. Diffusion and Diffusion-Controlled Reactions. (4) Lecture; four hours; outside study, eight 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) Laboratory; two hours; outside study, four hours. Enforced corequisite: course 131. Design of heat-treating cycles and performing experiments to study interdiffusion, growth of intermediate phases, recrystallization, and grain growth in metals. Analysis of data. Comparison of results with theory. Letter grading.


140B. Materials Selection and Engineering Design B. (3) Formerly numbered 140L) Lecture; two hours; laboratory, two hours; outside study, five hours. Enforced requisite: courses 132, 140A. Explicit guidance among myriad materials available 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 testing. Letter grading.

143A. Mechanical Behavior of Materials. (4) Lecture; four hours; discussion; one hour; outside study, seven hours. Enforced requisites: course 104, Mechanical and Aerospace Dynamic Flow Processes. Elastic 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. Enforced requisites: courses 90L, 143A (may be taken concurrently). Methods of characterizing
117. 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 papers in selected subject field of materials science and engineering from given set of journal publications. Instruction leads students through several crucial steps, including brainstorming, choosing title, concise writing, abstract, conclusion, and final polishing. Other subjects include writing style, word choices, and grammar. Letter grading.

CM180. 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 damaged natural tissues. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM860. Letter grading.

188. Special Courses in Materials Science and Engineering. (4) Seminar; four hours; outside study, eight hours. Specialized 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 once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: 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 paper or project required. Letter grading.

199. Directed Research in Materials Science and Engineering. (2 to 8) Tutorial, to be arranged. Limited to 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 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. Introduction to solid-state physics, thermodynamics, materials science, engineering, and practice in design, analysis, selection, and processing of engineering materials. Letter grading.


221. Science of Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 120. Study of modern electronic and chemical principles affecting properties and performance of semiconductor materials. Topics include bonding, 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. Requisites: courses 120, 130, 131. Thermodynamics and kinetics that affect semiconductor growth and device processing. Particular emphasis on fundamentals of growth (bulk and epitaxial), heteroepitaxy, implantation, oxidation. Letter grading.

223. Materials Science of Thin Films. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 120, 131. Fabrication structure, and property correlations of thin films used in microelectronics for data and information processing. Topics include film deposition, interfacial properties, stress and strain, electromigration, phase changes and kinetics, reliability. Letter grading.

224. Deposition Technologies and Their Applications. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Examination of physics behind majority of modern thin film deposition technologies based on vapor phase transport. Basic vacuum technology and gas kinetics. Deposition methods used in high-technology applications. Theory and experimental results of physical vapor deposition (PVD), chemical vapor deposition (CVD), plasma-enhanced chemical vapor deposition processes. Letter grading.


226. Si-CMOS Technology: Selected Topics in Materials Science. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Electronic Engineering 221B. Requisites: 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, high-k, SOI and three-dimensional FinFETs, source/drain engineering including transient-enhanced diffusion, nonvolatile memory, and metallization for ohmic contacts. Letter grading.

243A. Fracture of Structural Materials. (4) Lecture, four hours; discussion, two hours; outside study, seven hours. Requisite: course 143A. Engineering and scientific aspects of crack nucleation, slow crack growth, and unstable fracture. Fracture mechanics, dislocation models, fatigue, fracture in reactive environments, alloy development, fracture-safe design. Letter grading.

243C. Dislocations and Strengthening Mechanisms in Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 143A. Dislocations in crystals, point defects, dislocation structure, mobility, mechanics, and interaction of dislocations, mechanisms of yielding, work hardening, and other strengthening. Letter grading.

246A. Mechanical Properties of Nonmetallic Crystalline Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 160. Materials and environmental factors affecting mechanical properties of crystalline nonmetallic solids, including atomic bonding and structure, atomic-scale defects, microstructural features, residual stresses, temperature, stress state, strain rate, size and surface effects. Letter grading.


246D. Electronic and Optical Properties of Ceramics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 142. Principles governing electronic properties of ceramic single crystals and glasses and effects of processing and microstructure on these properties. Electronic conduc tion, ferroelectricity, and photochromism. Magnetic ceramics. Infrared, visible, and ultraviolet transmission. Unique application of ceramics. Letter grading.

247. Nanoscale Materials: Challenges and Opportunities. (4) Lecture, four hours; discussion, eight hours. Limited to graduate students. Literature studies of up-to-date subjects in novel materials and their potential applications, including nanoscale materials and biomaterials. Letter grading.

248. Materials and Physics of Solar Cells. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Comprehensive introduction to materials and physics of photovoltaic cells, covering basic physical properties of semiconductors, 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, organic solar cell, thin-film solar cells, and multiple junction solar cells provided 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 essential basic organic chemistry and polymer chemistry. Topics include three main categories of soft materials: organic molecules, synthetic polymers, and biomolecules; and three common materials, and discussion of structure-property relationship, 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; emphasis on organic materials chemistry and processing. Topics include conjugated polymers; heavily doped, highly conducting polymers; applications as processable metals and in various electronic, electrical, and electrochemical de vices. Synthesis of semiconductor polymers for organic light-emitting diodes, solar cells, thin-film transistors, introduction to emerging field of organic electronic materials. 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 framing of risk, risk-increasing and -reducing, domain of applications (safety, health, security, economy, and environment), principal methods of risk assessment, including overview of probability and statistics, how to identify risk metrics, 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 evaluation 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 industrial electrochemical processes. Primary emphasis on fundamental approach to analyze electrochemical processes. Specific topics include electrochemical reactions on metal and semicon ductor surfaces, electrodeposition, electroless deposition, electrosynthesis, fuel cells, aqueous and nonaqueous 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, classical 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.


272. Theory of Nanomaterials. (4) Lecture, four hours; outside study, eight hours. Strongly recommended requisite: course 200. Introduction to properties and applications of nanomaterials, with emphasis on understanding basic principles that distinguish nanostructures (with feature size below 100 nm) from their bulk counterparts. Explanation of new phenomena that emerge only in very small systems, using simple concepts from quantum mechanics and thermodynamics. Topics include structure, defect chemistry, and physical properties such as elastic moduli, quantum dots, wires, nanotubes, and multilayers, self-assembly on surfaces and in liquid solutions, mechanical properties of nanostructured metamaterials, molecular electronics, carbon nanotubes, and related realizations of quantum computing. Discussion of current and future directions of this rapidly growing field using examples from modern scientific literature. Letter grading.

CM260. 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. Researchers from leading research institutions around world deliver lectures on advanced research topics in materials science and engineering. Student groups present summary previews 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.

M297B. 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. Enforced requisite: 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 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.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate materials science and 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 materials science and 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 materials science and engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. 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.

MATHMATICS
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William J. Conley, PhD

Adjunct Professor
Christian Ratsch, PhD

Adjunct Assistant Professor
Mary P. Greene, MS

Scope and Objectives
Gauss called mathematics the “queen of the sciences.” It has provided powerful intellectual tools that have made possible tremendous advances in modern science and technology. The Department of Mathematics offers courses of study that introduce students to the fundamentals of mathematics and allow them to master the most important parts of the subject, both pure and applied. It leads doctoral students to the frontiers of mathematical research, where they can begin to push back those frontiers.

Undergraduate Study
The department offers seven majors: Mathematics, Applied Mathematics, Data Theory, Financial Actuarial Mathematics, Mathematics of Computation, etc.
Mathematics/Applied Science, and Mathematics for Teaching. The department also participates in the Mathematics/Economics Interdepartmental Program, which offers a Mathematics/Economics major.

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.

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, 6356 Mathematical Sciences.

Advanced Placement in Calculus

Students who have taken the Advanced Placement (AP) Calculus AB Test and obtained a score of 5 receive 4 units of credit and Mathematics 31A equivalency; those with a score of 4 receive 4 units of calculus and analytic geometry credit. They may petition for 31A equivalency, or they may take course 31A or 31AL at UCLA, although they must still satisfy the course requisites (Mathematics Diagnostic Test). Students who take the BC Test and obtain a score of 5 receive 8 units of credit for Mathematics 31A, 31B, 31E; those with a score of 4 receive 4 units of credit for Mathematics 31A equivalency. They may petition for 31A, 31B equivalency, or they may take courses 31A or 31AL, 31B at UCLA, although they must still satisfy the course requisites (Mathematics Diagnostic Test). Students receiving a score of 4 or lower on the AB examination, or 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 199.

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 133A.

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 requisite 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 31B or 32A, they must do so before completing course 33A).

For upper-division mathematics courses, students may not take or repeat a lower sequence course for credit if it is part of a sequence 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 I is designed for students who wish to develop general introduction to the topic of computers and computation, but who have no prior experience in computing.

Courses 10A, 10B, and 10C provide an extensive introduction to programming, using the C++ language. Courses 15, 16, 20A, 20B, 20C, 30, 40A, 40B, and 60 are of interest to Letters and Science majors who are preparing a Computing specialization or who are planning to take upper-division coursework in computer science. These students should seek the advice of their major department.

Mathematics BS

Learning Outcomes

The 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 Mathematics premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to apply for the Mathematics major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as 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, 32A, 31B), (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, Program in Computing 10A, and two courses from Chemistry and Biochemistry 20A, 20B, Economics 11, Life Sciences 7A, Philosophy 31, 132, Physics 1B, 1C, 5B, 5C. 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, and while 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 111A.

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 Applied Mathematics premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to apply for the Applied Mathematics major by filing a petition with the Student Services Office in 6366 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, and while 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.

The Major

Required: Mathematics 115A, 131A, either 131B or 132, 142; two two-term sequences from two of the following categories: numerical analysis—courses 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 113A.

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.

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 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, 1S; 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, 176A, 178B, 178C, 179 or 182; one elective selected from Statistics 100C, 101B, 102C, or CS15 through 199 (except Statistics 182, 186, or 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.

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
• Ability to pass at least the first four preliminary Society of Actuaries exams
• 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 6556 Mathematics-Statistical 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, and 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; (2) 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, Economics 1, 2, 11, Management 1A, 1B, Program in Computing 10A. Each course must be taken for a letter grade. The economics preparation for the major courses (Economics 1, 2, 11, Management 1A, 1B, Program in Computing 10A) are calculated separately from the mathematics preparation for the major courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A). 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: Eight mathematics/statistics courses, including Mathematics 115A, 131A, 170E (or 170A), 170S (or 170B), 174E (or Economics 141 or Statistics C183), 177, 178A, 178B; and three courses from Mathematics 151A, 151B, 156, 164, 168, 171, 178C, 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 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 three courses from the electives.

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 Mathematical 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-division 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 to the premajor.

Current UCLA students need to apply for the Mathematics/Applied Science major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics/Applied Science 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, 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 well as the seven courses outside mathematics.

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.

At least five of the courses from the related discipline must be taken after the program has been approved. Students are not admitted to the major if they have 135 or more units by the end of the term in which they plan to enter the program.

Mathematics/History of Science Plan

Preparation for the Major

Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, and three courses from History 2B, 3A through 3D. 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.

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, 151A, 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 Biomathematics 160, Biostatistics 100A, Chemistry and Biochemistry CM160A, Computer Science CM186, Ecology and Evolutionary Biology C199A, C133, C135, Life Sciences 107, Physiological Science 100, M135, and any additional upper-division course from these fields with consent of the administering 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 18, 1C, 5B, 5C, Program in Computing 10B through 107. 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, 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/Applied 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, 16, 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 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 in their undergraduate careers as possible because the program does require additional courses beyond the major requirements. For additional information on teaching credential requirements, contact the Education Department at 310-825-8328. See the Curtis Center website for details.

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 32A, 33A, 33B.

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.

Teaching Secondary Mathematics Minor

The Mathematics for Teaching minor is designed for students majoring in fields other than mathematics who plan to teach secondary mathematics after graduation. The minor recognizes completion of requisite coursework for the Joint Mathematics Education Program and also prepares students for
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 (Cphi), 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. Requisite: successful completion of Mathematics Diagnostic Test (score of 48 or better) or course 1 with grade of C– or better. Not open for credit to students with credit in another calculus sequence. Modeling with functions, limits, and derivatives, and decision making in biology, derivative rules and tools. P/NP or letter grading.

2. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Requisite: course 31A with grade of C– or better. Not open for credit to students with credit in another calculus sequence. Modeling with functions, limits, and derivatives, and decision making in biology, derivative rules and tools. P/NP or letter grading.

3. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Requisite: course 3B with grade of C– or better. Multivariable modeling, matrices and vectors, eigenvalues and eigenvectors, linear and nonlinear systems of differential equations, probabilistic applications of integration. P/NP or letter grading.

4. Gateway to Mathematics: Number Theory. (4) Lecture, three hours; discussion, one hour. Requisite: successful completion of Mathematics Diagnostic Test or course 1 with grade of C– or better. Differential calculus and applications; introduction to integration. P/NP or letter grading.

5. Differential and Integral Calculus. (4) Lecture, three hours; discussion, one hour. Preparation: at least three and one-half years of high school mathematics (including some coordinate geometry and trigonometry). Requisite: successful completion of Mathematics Diagnostic Test or course 1 with grade of C– or better. Differential calculus and applications; introduction to integration. P/NP or letter grading.

6. Differential and Integral Calculus Laboratory. (5) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: at least three and one-half years of high school mathematics (including some coordinate geometry and trigonometry). Requisite: successful completion of Mathematics Diagnostic Test or course 1 with grade of C– or better. Differential calculus and applications; introduction to integration. P/NP or letter grading.

7. Workshop in Differential Calculus. (1) Discussion, one hour. Corequisite: course 3B. Supplementary techniques and applications for solving problems in integral calculus. Limits of investigation set by individual instructor. P/NP grading.

8. Integration and Infinite Series. (4) Lecture, three hours; discussion, one hour. Requisite: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B. Transcendental functions; methods of integration; sequences and series. P/NP or letter grading.

9. Introduction to Infinite Series and Infinite Calculus. (4) Lecture, three hours; discussion, one hour. Requisite: course 31A with grade of C– or better. Limits of investigation set by individual instructor. P/NP grading.

10. Calculus for Economics Students. (4) Lecture, three hours; discussion, one hour. Requisite: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B. Applications of differentiation, integration, differential equations, linear models in biology, phase lines and classifying equilibrium values, bifurcations. P/NP or letter grading.

11. Workshop in Integral Calculus. (1) Discussion, one hour. Corequisite: course 3B. Supplementary techniques and applications for solving problems in integral calculus. Limits of investigation set by individual instructor. P/NP grading.


14. Introduction to Discrete Structures. (4) Lecture, three hours; discussion, one hour. Requisite: 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, induction. P/NP or letter grading.
Seminar, three hours. Limit to teach appropriate mathematics concepts at this development of students at this level, and best means of discussion of learning in middle school culture, cognitive mathematics teachers to field of secondary education and 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 in middle school culture, cognitive development of students at this level, and best means to teach appropriate mathematics concepts at this level. 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 supplementary 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 supplementary readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

95. Transition to Upper-Division Mathematics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 31A, 31B, 32A. Not open for credit to students with credit for course 131A or 131B. Introduces to rigorous methods of proof-based upper-division mathematics courses. Basic logic; structure of mathematical proofs; sets, functions, and cardinality; natural numbers and induction; construction of real numbers; topology of real numbers; sequences and convergence; continuity. May not be applied toward major requirements. P/NP or letter 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 undergraduate lecture 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 collaborative 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 lecture 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.

100. Problem Solving. (4) Lecture, three hours. Requisite: course 31B with grade of C– or better. Problem-solving techniques and mathematical topics 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 nonroutine problems. Participants expected to take Putnam Examination. P/NP grading.

101. Advanced Problem Solving. (4) Lecture, three hours. Requisite: course 100 or significant experience with problem-solving techniques and mathematical topics useful as preparation for Putnam competition. Problems in abstract algebra, number theory, combinatorics, probability, real and complex analysis, differential, equations, Fourier analysis. Regular practice tests given, similar in difficulty to Putnam examination. May be repeated for maximum of 12 units. P/NP or letter grading.

103A-103B-103C. Observation and Participation: Mathematics Instruction. (2–2–2) Seminar, one hour; fieldwork: classroom observation and participation two hours. Requisites: courses 31A, 31B, 32A, 32B, 33B. Course 103A is enforced requisite to 103B, which is enforced requisite to 103C. Observation, participation, or tutoring in mathematics classes at middle and secondary levels. May be repeated for credit. P/NP (undergraduates) or S/J (graduates) grading.

105A. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 20 minutes. Requisites: courses 110A or (117), 120A or (123), and 131A, with grades of C– or better. Mathematical knowledge and research-based pedagogy needed for teaching key geometry topics in secondary school, including axiomatic systems, measure, and geometric transformations; linear transformations; introduction to standardized tests and current research for teaching secondary school mathematics. Letter grading.

105B. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 20 minutes. Requisites: courses 110A, 110B, 110A or (117), 120A or (123), and 131A, with grades of C– or better. Mathematical knowledge and research-based pedagogy needed for teaching key polynomial, rational, and transcendental functions and related equations in secondary school; 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, 20 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 polynomial, rational, and transcendental functions and related equations in secondary school; 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 1117. Ring of integers, integral domains, fields, polynomial domains, unique factorization. 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, symmetric skew and orthogonal linear transformations, measure, and geometric constructions, and solvability by radicals.

111. Theory of Numbers. (4) Lecture, three hours; discussion, one hour. Requisite: courses 110A. Algebraic 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.

114C. Computability Theory. (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 form theorems; sections: unsolvability and undecidability 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, emphasizing primarily completeness and incompleteness theorems of Godel. Properties of Godelian logic(s); syntax and semantics; formal derivation; 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. Requisites: course 33A. Techniques of proof, abstract vector spaces, linear transformations, and matrices; determinants; inner product spaces; eigen-vector theory. 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: courses 110A or 131A or Philosophy 135. Subsidary techniques and applications for solving problems in linear algebra. Limits of investigation set by individual instructor. P/NP or letter grading.

115HX. Workshop in Linear Algebra (Honors). (1) Discussion, one hour. Corequisite: course 115AX. Honors course parallel to course 115AX. P/NP 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 Computer Science. Introduction to mathematical cryptology using methods of number theory, algebra,
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 131A. 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, Poincaré model, independence of parallel postulate.

Analysis

131A-131B. Analysis. (4–4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A, 131A. Course 120A is required to 120B. Not open for credit to students with credit for course 110A. Integers, congruences; fields, applications of finite fields; polynomials; permutations, introduction to groups.


135. Ordinary Differential Equations. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 33B. Linear 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.

142. Mathematical Modeling. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Introduction to fundamental principles and applications of mathematical sciences. Emphasis on manner in which mathematical models are constructed for physical problems. Illustrations from many fields of endeavor, such as physical sciences, biology, economics, and traffic dynamics.

143. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Foundations of Newtonian mechanics, kinematics and dynamics of a rigid body, variational principles and Lagrange equations; calculus of variations; wave phenomena; Green’s functions. P/NP or letter grading.

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 fields.

151A-151B. Analysis (Honors). (4–4) Lecture, three hours; discussion, one hour. Requisites: courses 131A, 131B. 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.

152. Complex Analysis for Applications. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Introduction to basic formulas and calculation procedures of complex analysis of one variable. Topics include Cauchy/Riemann equations, Cauchy integral formula, power series expansion, contour integrals, residue calculus.

153. Complex Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, and 115A, with grades of B or better. Specifically designed for students who have strong commitment to pursue graduate studies in mathematics. Introduction to complex analysis on proofs. Honors course parallel to course 132. P/NP or letter grading.


156. Machine Learning. (5) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 32B, 33B, 115A, Program in Computing 10A or Computer Science 170. Introduction to machine learning. Topics include: supervised learning, unsupervised learning; pattern recognition and machine learning; topics include parametric and non-parametric probability distributions, curse of dimensionality; dimensionality reduction, and concepts of decision theory. Advanced machine learning and pattern recognition problems, including data classification and clustering, regression, kernel methods, artificial neural networks, hidden Markov models, and Markov random fields. Projects in MATLAB to be part of final project presented in class. P/NP or letter grading.


164. Optimization. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A, 131A. Not open for credit to students with credit for former Electrical Engineering 136. Fundamentals of optimization. Linear programming: basic solutions, simplex method, duality theory, Unconstrained optimi- zation, Newton method, linear and nonlinear programming, optimality conditions for constrained problems. Additional topics from linear and nonlinear programming.

166. Introduction to Networks. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A, 170A or Electrical and Computer Engineering 131A or Statistics 100A. Introduction to network science (including theory, computation, and applications), which can be used to study 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 as time permits. P/NP or letter grading.

Probability

170A. Probability Theory. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33A. Not open to students with credit for Electrical Engineering 131A or Statistics 100A. Probability distributions, random variables and vectors, expectation. P/NP or letter grading.

170B. Probability Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 170A. Convergence in distribution, normal approximation, laws of large numbers, Poisson processes, random walks, P/NP or letter grading.

181. Introduction to Probability and Statistics 1: Probability. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B. Introduction to probability theory. Topics include discrete (binomial,
170S. Introduction to Probability and Statistics 2: Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B, 170E. Introduction to statistics. Topics include sampling, estimation and properties of estimators, and construction of confidence intervals and hypothesis testing. P/NP or letter grading.

171. Stochastic Processes. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 170A (or Statistics 100A), Discrete Markov chains, continuous-time Markov chains, renewal theory, P/NP or letter grading.


172C. Actuarial Models II. (4) Lecture, four hours. Enforced requisite: course 172B. Designed to prepare students for Society of Actuaries Models for Life Continuities examination. Provides understanding of various casualty loss models and 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.

173A. Casualty Loss Models I. (4) Lecture, four hours. Enforced requisites: courses 170A and 170B (or Statistics 100A and 100B), 175. Designed to prepare students for Society of Actuaries Construction and Evaluation of Actuarial Models examination. Provides understanding of various casualty loss models and 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.

173B. Casualty Loss Models II. (4) Lecture, four hours. Enforced requisite: course 173A. Designed to prepare students for Society of Actuaries Construction and Evaluation of Actuarial Models examination. Construction 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.


175. Introduction to Financial Mathematics. (4) (Formerly numbered 172A) Lecture, four hours. Requisites: courses 32B, 33B. Designed to prepare students for Society of Actuaries Financial Mathematics examination. Provides understanding of fundamental concepts and ideas, and how these concepts are applied in calculating present and accumulated values from various streams of cash flows as basis for future use in reserving, valuation, pricing asset/liability management, 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, interest rate swaps, financial derivatives, forwards, futures, and options. Letter grading.

179A. Foundations of Actuarial Mathematics: Life Insurance and Annuities. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 170A or 170E (or Statistics 100A), 175 or 177. Introduction to mathematics associated with long-term insurance coverages. Single- and multiple-life survival models, annuities, premium calculations and policy values, reserves, pension plans and retirement benefits. Letter grading.


Special Studies

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 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 88S course. Individual study in 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. Enforced requisites 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: Mathematics. (4) Seminar, three hours. Variable topics research course in mathematics that covers material not covered in regular mathematics upper-division curriculum. Requires, discussion and tangible evidence 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) Seminar, three hours. Participating seminar in advanced topics in mathematics. Content varies from year to year. May be repeated for credit by petition. P/NP or letter grading.

195. Community Internships in Mathematics Education. (4) Tutorial, to be arranged. Limited to junior/seniors. Internship to be supervised by Center for Community Learning and Mathematics Department. Students meet on regular basis with instructor, provide periodic reports of their pedagogical impact and are 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.

197. Individual Studies in Mathematics. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. At discretion of departmental faculty to avail-ability of staff, individual intensive study of topics suit-able for undergraduate course credit but not specifi-cally offered as separate courses. Scheduled meet-ings to be arranged between faculty member and student. Individual contract required. P/NP grading.

199 course may be applied toward upper-division courses required for majors offered by Mathematics Department. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Mathematics. (2 or 4) Tutorial, to be arranged. Limited to juniors/seniors. Designed to provide additional supervised research experience requiring original research. Individual contract required. P/NP grading.

1999A-1999Z. Special Studies: Mathematics / 575
Graduate Courses
Teacher Preparation

201A-201B-201C. 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 advanced 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.


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 Mathematics 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. Adelic analysis on GL(1) and GL(2), especially Tate thesis 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. Arithmetic geometry, especially of modular curves. S/U or letter grading.

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 210A, 210B, or 210C. Group theory, including theorems 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.

211. Structure of Rings. (4) Requisite: course 210A. Radical, irreducible modules and principal rings, and algebras with minimum condition.

212A. Homological Algebra. (4) Lecture, three hours. Enforced requisite: course 210A. Modules over rings, homomorphisms and tensor products of modules, functors and derived functors, homological dimension of rings and modules, and homological algebra with minimum condition.

212B. Homological Algebra. (4) Lecture, three hours. Requisites: courses 210A, 210B, 210C, 212A. Advanced topics in modern homological algebra, such as triangulated categories, differential graded algebras as dg-categories, tilting theory and applications of group cohomology to representation theory, stable categories and modular representation theory, and other current topics. S/U or letter grading.

213A-213B. Topics in Combinatorial Theory. (4–4) Lecture, three hours. Requisite: course 210A. Topics include representation theory, transfer theory, infinite Abelian groups, free products and presentations of groups, soluble and nilpotent groups, classification of finite groups, and graph theory. S/U or letter grading.

214A-214B. Introduction to Algebraic Geometry. (4–4) Requisite: course 210A. Basic definitions and first properties of algebraic varieties in affine and projective space. Irreducibility, dimension, singular and smooth points. More advanced topics, such as sheaves and their cohomology, or introduction to theory of Riemann surfaces, as time permits.


216A-216B-216C. Further Topics in Algebraic Geometry. (4–4–4) Lecture, three hours. Requisites: courses 210A, 210B, 210C. Second-order examination of results of advanced current research in algebra, including algebraic geometry and K-theory. Variety of different content may include Abelian varieties, invariant theory, Hodge theory, geometry over finite fields, K-theory, homotopical algebra, and derived algebraic geometry. May be repeated for credit by petition.

217. Geometry and Physics. (4) Same as Physics M226E.) Lecture, three hours. Interdisciplinary course on topics at interface between physics quantum fields and supersymmetries and mathematics of 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.

Logic and Foundations

220A-220B-220C. Mathematical Logic. (4–4–4) Lecture, three hours. Requisite: course M114S. Fundamental methods and results in mathematical logic, using mathematical methods to reason about existence or nonexistence of 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.


223C. Topics in Computability Theory. (4) Lecture, three hours. Requisites: courses 220A, 220B. Degrees of unsolvability, recursively enumerable sets, undecidable theories; inductive definitions, admissible sets and ordinals; recursion in higher types; recursion and complexity. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

223D. Topics in Descriptive Set Theory. (4) Lecture, three hours. Requisites: courses 220A, 220B, Classical and effective results on Borel and projective sets; recent advances of period three and Cantor-Bendixson principle of determinacy; consequences of determinacy, including periodicity, structure theory of pointclasses, and partition properties. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

224M. Topics in Model Theory. (4) Lecture, three hours. Requisites: courses 220A, 220B. Ultraproducts, preservation theorems, interpolation theorems, saturated models, omitting types, category, categoricity, two cardinal theorems, enriched languages, soft model theory, and applied model theory. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

225S. Topics in Set Theory. (4) Lecture, three hours. Requisites: courses 220A, 220B, 220C. Forcing and independence results, including independence of continuum hypothesis and independence of axiom of choice; inner model theory; large cardinals, proofs of consistency.
determinacy, combinatorial set theory. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

**Geometry and Topology**

225A. Differential Topology. (4) Lecture, three hours; discussion, one hour. Manifolds, tangent vectors, smooth maps, tangent bundles and vector bundles in general, vector fields and integral curves, Sard theorem on measure of critical values, embedding theorem, transversality, degree theory, Lefshetz fixed-point theorem, Euler characteristic, Ehresmann's theorem that proper submersions are locally trivial fibrations. S/U or letter grading.

225B. Differential Geometry. (4) Lecture, three hours; discussion, one hour. Lie derivatives, integral distributions and Frobenius theorem, differential forms, integration and Stokes theorem, de Rham cohomology, including Mayer-Vietoris sequence, Poincaré duality, Thom classes, degree theory and Euler characteristic revisited from viewpoint of de Rham cohomology, Riemanian metrics, gradients, volume forms, and introduction of classical integral theorems as aspects of Stokes theorem for differential forms. S/U or letter grading.

225C. Algebraic Topology. (4) Lecture, three hours; discussion, one hour. Basic concepts of homotopy theory, weak and covering spaces, singular homology and cohomology theory, axioms of homotopy theory, Mayer-Vietoris sequence, calculation of homology and cohomology of standard spaces, cell complex, classifying spaces, Eilenberg-MacLane spaces, on isomorphism of de Rham differential-form cohomology and singular cohomology with real coefficients. S/U or letter grading.


234. Topics in Differential Geometry. (4) Lecture, three hours. Requisites: courses 226A, 226B. Complex and Kahler geometry. Hodge theory, homogeneous manifolds and symmetric spaces, finiteness and compactness, Basic examples of 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.

235. Topics in Manifold Theory. (4) Lecture, three hours. Requisites: courses 225A, 225B. Emphasis on low-dimensional manifolds. Structure and classification of manifolds, group actions on manifolds (e.g., knots and links). Topics vary from year to year. May be repeated for credit with consent of instructor.

236. Topics in Geometric Topology. (4) Lecture, three hours. Requisites: courses 225A, 225B. Decomposition spaces, surgery theory, group actions, dimension theory, infinite dimensional topology. Topics vary from year to year. May be repeated for credit with 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; dynamical differences, including hyperbolicity and quasiperiodic dynamics; ergodic theory; low-dimensional dynamics. S/U or letter grading.

**Analysis and Differential Equations**


250C. Advanced Topics in Ordinary Differential Equations. (4) Requisites: courses 245A, 250A. 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.


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**


255B-255C. Topics in Functional Analysis. (4–4) Requisites: course 255A. Selected topics in functional analysis. Linear operators, Banach spaces and Hilbert space, semigroups of operators, linear topological vector spaces, and other related areas.


**Applied Mathematics**


264. Applied Complex Analysis. (4) Requisite: course 246A. Topics include contour integration conformal mapping, differentiation and integration in complex plane, special functions, asymptotic series, Fourier and Laplace transforms, singular integral equations.


266B-266C. Applied Partial Differential Equations. (4-4) Requisite: courses 266A, 266B. Advanced topics in linear and partial differential equations, with emphasis on energy estimates, numerical methods, and applications to fluid mechanics. Additional topics include dispersive waves, systems with multiple time scales, and applications to fluid mechanics.


273C. Optimization and Calculus of Variations: Numerical Optimization. (4) Lecture, three hours. Derivation, analysis, and implementation of numerical methods for constrained and unconstrained optimization problems for variety of types and data at different scales. S/U or letter grading.


Probability and Statistics


276. Topics in Network Science. (4) Lecture, three hours. Requisites: courses 115A, 170A. Interesting problems of network science. Topics vary from year to year and may include dynamical processes on networks, mesoscale structures in networks, time-dependent networks, overlayer networks, applications of networks, data analysis in networks, spatial networks, and others. Discussion of recent review articles and research papers. Some presentations by students. Joint project on topic in network science possibly leading to publication. S/U or letter grading.

Special Studies


89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Describes focus and outlines lower-division 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.

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 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

110. Parallel and Distributed Computing. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10B or equivalent familiarity with programming in C or C++ language. Introduction to programming and parallelization of algorithms. Shared and distributed memory parallel architectures; currently available parallel machines; parallel algorithms and program development; estimation of algorithmic performance; distributed computing; selected advanced topics. P/NP or letter 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, 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.

189HG. 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 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.

Scope and Objectives

In recent years economics has become increasingly dependent on mathematical methods, and the mathematical tools it employs have become more sophisticated. Mathematically competent economists, with bachelor’s degrees and with advanced degrees, are needed in industry and government. Graduate programs in economics and finance programs in graduate schools of management require strong undergraduate preparation in mathematics for admission.

The Mathematics/Economics BS degree program is designed to give students a solid foundation in both mathematics and economics, stressing those areas of mathematics and statistics that are most relevant to economics and the parts of economics that emphasize the use of mathematics and statistics. It is ideal for students who may wish to complete a higher degree in economics.

Undergraduate Study

Mathematics/Economics BS

Learning Outcomes

The Mathematics/Economics major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariable differential and integral calculus and differential equations
- Familiarity with linear algebra, techniques of proof, and the foundations of real analysis
- Ability to synthesize material, problem solve, and think abstractly
- Ability to perform basic computer programming, especially in C++
- Familiarity with various principles of macro- and microeconomics (analysis, institutions, policy)

Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Economics premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to apply for the Mathematics/Economics major by filing a petition with the Student Services Office in Interdepartmental Program College of Letters and Science 6363 Mathematical Sciences Box 951555 Los Angeles, CA 90095-1555 Mathematics/Economics 310-204-1286 Program e-mail Don M. Blasius, PhD, Co-Chair Ichiro Obara, PhD, Co-Chair

Faculty Committee

Don M. Blasius, PhD (Mathematics)  
Robert F. Brown, PhD (Mathematics)  
Georg Menz, PhD (Mathematics)  
Moritz Meyer-ter-Vehn, PhD (Economics)  
Ichiro Obara, PhD (Economics)  
Peter Petersen, PhD (Mathematics)  
John G. Riley, PhD (Economics)

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 microeconomic 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, 170A, 170B, 174E (or Economics 141 or Statistics C183), and one elective course from Mathematics 134, 135, 136, or 177; 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-semester sequence for economics courses), (3) present the thesis in Economics 198B, 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, 10B, two courses from 10C, 15, 16, 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 10B (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

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Faculty Roster

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Andrea L. Bertozi, PhD (Betsy Wood Knapp Professor of Innovation and Creativity)
Gregory P. Carman, PhD
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. Ghoniem, PhD
James S. Gibson, PhD
Vijay Gupta, PhD
Dennis W. Hong, PhD
Tetsuya Iwasaki, PhD
Y. Sungtaek Ju, PhD
Ann R. Karagozian, PhD
H. Pirouz Kavehpour, PhD
Chang-Jin (CJ) Kim, PhD (Volgenau Endowed Professor of Engineering)
J. John Kim, PhD (Rockwell Collins Professor of Engineering)
Adrienne G. Lavine, PhD
Xiaochun Li, PhD (Raytheon Company Professor of Manufacturing Engineering)
Kuo-Nan Liu, PhD
Ajit K. Mal, PhD
Robert T. M’Closkey, PhD
Ali Mosteh, PhD, NAE (Evelyn Knight Professor of Engineering)
Jayathi Y. Murthy, PhD, Dean
Laurent G. Pilon, PhD
Jacob Rosen, PhD
Jason L. Speyer, PhD (Ronald and Valerie Sugar Endowed Professor of Engineering)
Tsau-Chin Tiao, PhD
Xiaolin Zhong, PhD

Professors Emeriti
Oddvar O. Bendiksen, PhD
Ivan Catton, PhD
Peetz P. Friedmann, ScD
H. Thomas Hahn, PhD (Raytheon Company Emeritus of Manufacturing Engineering)
Chin-Ming Ho, PhD (Ben Rich Lockheed Martin Professor Emeritus of Aeronautics)
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D. Lewis Mingori, PhD
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Associate Professors
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Russell A. Westmann, PhD
Daniel C.H. Yang, PhD

Assistant Professors
Robert N. Candler, PhD
Elisa Franco, PhD
Jaime Marian, PhD
Veronica J. Santos, PhD
Kunihiko Ta ra, PhD
Richard E. Witz, PhD

Assistant Professors
Artur R. Davoyan, PhD
Jonathan B. Hopkins, PhD
Yongjie Hu, PhD
Lihua Jin, PhD
M. Khalid Jawed, PhD
Raymond M. Spearin, PhD

Lecturers
Ravinesh C. Amar, PhD
Amiya K. Chatterjee, PhD
Robert J. Kinsey, PhD
Damian M. Tooley, PhD

Adjunct Professors
Dan M. Goebel, PhD
Vinay K. Goyal, PhD
Leslie M. Lackman, PhD
Wilbur 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 and 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 BS degrees in Aerospace Engineering and in Mechanical Engineering. At the graduate level, the department offers programs leading to MS and PhD degrees in Mechanical Engineering and in Aerospace Engineering. An MS in Manufacturing Engineering is also offered.

Undergraduate Study

The aerospace engineering and mechanical engineering programs are accredited by the Engineering Accreditation Commission of ABET.

The Aerospace Engineering and Mechanical Engineering majors are designated capstone majors. Within their capstone courses, Aerospace Engineering students are exposed to the conceptual and design phases for aircraft development and produce a structural design of a component, such as a lightweight aircraft wing.
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) 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, 4A, 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 (150B, C150P, 154A, 154S) or space (C150R, 161A, 161B, 161C); three technical breadth 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 157A); 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, C150R, 154A, 156A, 161B, 161C (unless taken as a required course), or from 94, 131A, 133A, 135, 136, 137, C131, C137, CM140, 150C, C150G, 155, C156B, 161D, 162A, 166C, M168, 169A, 171B, 172, 174, C175A, 181A, 182B, 182C, 183A, M183B, C183C, C185, C186, C187L.

For information on UC, school, and general education requirements, see the College and Schools chapter.

Mechanical Engineering BS

Capstone Major

The Mechanical Engineering program is designed to provide basic knowledge in thermodynamics, fluid mechanics, heat transfer, solid mechanics, mechanical design, dynamics, control, mechanical systems, manufacturing, and materials. The program includes fundamental subjects important to all mechanical engineers.

Learning Outcomes

The Mechanical 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, 4A, 4BL.

The Major

Required: Electrical and Computer Engineering 110L, Mechanical and Aerospace Engineering 101, 102, 103, 105A, 105D, 107, 131A or 133A, 156A, 157, 162A, 171A, 183A (or M183B); 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 166A—or, by petition, from outside the department; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Mechanical and Aerospace Engineering 162D, 162E); and two major field elective courses (8 units) from Mechanical and Aerospace Engineering 131A (unless taken as a required course), 133A (unless taken as a required course), 135, 136, 137, C131, C137, CM140, 150A, 150B, 150C, C150G, C150R, 154S, 154A, 156A, 157A, 161A through 161D, 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 many paths of discovery at UCLA. P/NP grading.


their application to ordinary differential equations. Introduction to boundary value problems, partial differential equation, and separation of variables. Letter grading.

94. Introduction to Computer-Aided Design and Drafting. (4) Lecture, two hours; laboratory, four hours. Fundamentals of computer-aided design and two- and three-dimensional modeling on computer-aided design and drafting systems. Students use one or more online computer systems to design and display various objects. 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 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


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. Kinetics and kinematics 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 23B, 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 20A. Review of nuclear physics, radioactivity and decay, and radiation interaction with matter. Nuclear fission and fusion processes and mass defect, chain reactions, criticality, neutron diffusion and multiplication, nuclear reactor design. Applications. Letter grading.

131A. Engineering Thermodynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 105A. Applications of thermodynamic principles to engineering processes. Energy conversion systems. Rankine cycle and other cycles, refrigeration, psychrometry, reactive and non-reactive fluid flow. Elements of thermodynamic design. Letter grading.


139. Introduction to Modeling and Analysis of Dynamic Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 154S. Classical pre- and simple models 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 equations. Introduction to computer simulations. Discussion of equilibrium solutions, small signal linearization, large signal responses, Block diagram representation and response of interconnected systems. Hands-on experiments reinforce lecture material. Letter grading.


C131G. Microscopic Energy Transport. (4) Lecture, four hours; outside study, eight hours. Requisites: course 105D. Exploration of basic principles of transport of energy in natural and fabricated structures by three carriers: 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. Concurrently scheduled with course C231G. Letter grading.

133A. Engineering Thermodynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 105A. Applications of thermodynamic principles to engineering processes. Energy conversion systems. Rankine cycle and other cycles, refrigeration, psychrometry, reactive and non-reactive fluid flow. Elements of thermodynamic design. Letter grading.

135. Fluid Dynamics of Biological Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 103. Mechanics of aquatic locomotion; insect and bird flight aerodynamics; pulsatile flow in circulatory systems; blood flow in microcirculation; role of fluid dynamics in arterial diseases. Concurrently scheduled with course C250G. Letter grading.

150P. Aircraft Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 105A, 150A. Thermodynamic properties of gases, aircraft jet engine cycle analysis and component performance, component matching, advanced aircraft engine topics. Concurrently scheduled with course C250P. Letter grading.

150R. Rocket Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 105A, 150A. 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 technologies. Concurrently scheduled with course C250R. Letter grading.

154A. Preliminary Design of Aircraft. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 154S. Classical preliminary design of aircraft, including weight estimation, performance and stability, and control consideration. Term assignment consists of preliminary design of low-speed aircraft. Letter grading.


154F. Flight Mechanics, Stability, and Control of Aircraft. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 154A, 156A. Flight performance, stability, 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 Bioengineering CM140.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 101, 102, and 156A or 166A. Introduction to biomechanical functions of human body; skeletal adaptation to optimize load to body, function. Dynamics and kinematics. Fluid mechanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM240. Letter grading.
155. Intermediate Dynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requires: course 102. Axioms of Newtonian mechanics, generalized coordinates. Lagrange equation, variational principles; central force motion; kinematics and dynamics of rigid bodies. Euler equations of motion of rotating bodies, oscillatory motion, normal coordinates, orthogonality relations. Letter grading.

156A. Advanced Strength of Materials. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requires: course 102, 101. Knowing stress to students with credit for course 166A. Concepts of stress, strain, and material behavior. Stresses in loaded beams with rectangular and curvilinear cross-sections. Torsion of cylinders and thin-walled structures, shear flow. Stresses in pressure vessels, press-fit and shrink-fit problems, rotating shafts. Curved beams. Contact stresses. Strength and failure, plastic deformation, fatigue, elastic instability. Letter grading.


157. Basic Mechanical and Aerospace Engineering Laboratory. (4) Lecture, four hours; outside study, four hours. Requires: courses 101, 102, 103, 105A, 105B. Electrical Engineering 100. Methods of measurement of basic quantities and performance of basic experiments in fluid mechanics, structures, and thermodynamics. Primary sensors, transducers, recording equipment, signal processing, and data analysis. Letter grading.

157A. Aerospace Design Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requires: courses 150A, 157. Recommended: 150B, C150R. Experimental illustration of important physical phenomena in area of fluid mechanics/aerodynamics, as well as hands-on experience with design of experimental programs and use of modern experimental tools and techniques in field. Letter grading.

161A. Introduction to Astronautics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requires: course 102. Recommended: course 82. Spaceflight, including two-body and three-body problem, rendezvous and capture, and EM environment. Ground track and taxonomy of common orbits. Orbital and transfer maneuvers, patched conics, perturbation theory, low-thrust trajectories, spacecraft pointing, and spacecraft attitude control. Space mission design, space environment, rendezvous, reentry, and launch. Letter grading.

161B. Introduction to Space Technology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requires: course 150A or 150B. Spacecraft systems and dynamics, including spacecraft power, instruments, communications, structures, materials, thermal control, and attitude/orbital determination. Spacecraft environment, shield design, launch vehicles/considerations, space propulsion. Letter grading.

161C. Spacecraft Design. (4) Lecture, four hours; outside study, eight hours. Requires: course 161B. Preliminary design and analysis by students of Earth-orbiting or interplanetary space missions and spacecraft. Students work in groups of three or four, with each group primarily focused on their system and for integration with whole. Letter grading.


162D. Mechanical Engineering Design I. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisites: courses 94, 156A (or 153A or 153B), 162A (or 171A). Limit to seniors. First of two mechanical engineering capstone design courses. Lectures on engineering project management, design of thermal systems, mechatronics, mechanical and computational components. Students work in teams to begin their two-term design project. Laboratory modules include CAD design, CAE analysis, and conceptual design for team project. Letter grading.

162E. Mechanical Engineering Design II. (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. Students continue design project 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 design optimization strategy. 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. Requires: courses 82, 101. Not open to students with credit for course 156A. Introduction to two classes of linear elastic structures: beams and plates, yield and fatigue; bending of beams; warping; torsion of thin-walled cross sections; shear flow, shear-lag; combined bending torsion of thin-walled members; buckling of columns; elements of plate theory; buckling of columns. Letter grading.

166C. Design of Composite Structures. (4) Lecture, four hours; discussion; two hours; outside study, six hours. Enforced requisite: course 156A or 166A. History of composites, stress-strain relations for composite materials, bending and extension of symmetric laminates; failure analysis, design examples and design studies, buckling, stiffeners, non-symmetric laminates, micromechanics of composites. Letter grading.

M166. Introduction to Finite Element Methods. (4) (Same as Material Sciences and Engineering 130.) Lecture, four hours; discussion; one hour; outside study, seven hours. Requires: course 156A or 166A or Civil Engineering 130. Introduction to basic concepts of finite element methods (FEM) and applications to structural and solid mechanics and heat transfer. Direct matrix structural analysis; weighted residual, least squares, and Ritz approximation methods; shape functions; convergence properties; isoparametric formulation of multidimensional heat flow and elasticity; numerical integration. Practical use of FEM software; geometric and analytical modeling; preprocessing and postprocessing techniques; term projects with computers. Letter grading.

169A. Introduction to Mechanical Vibrations. (4) Lecture, four hours; discussion; two hours; outside study, six hours. Requires: courses 101, 102, 107. Fundamentals of vibration theory and applications: Free, forced, and transient vibration of one and two degrees of freedom systems, including damped, Normal modes, coupling, and normal coordinates. Vibration isolation, vibrations of continuous systems. Letter grading.

171A. Introduction to Feedback and Control Systems: Dynamic Systems Control I. (4) Lecture, four hours; discussion; one hour; outside study, six hours. Enforced requisite: course 107. Introduction to feedback principles, control systems design, and system stability. Modeling of physical systems in engineering and other fields; transfer functions; state-space models; using Nyquist, Bode, and root locus methods; compensation; computer-aided design and analysis. 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 laboratory work. Letter grading.

174. Probability and Its Applications to Risk, Reliability, and Quality Control. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: Mathematics 33A. Introduction to probability theory; random variables, distributions, functions of random variables, models of failure of components, redundancy, reliability, and stress-strength models, fault tree analysis, statistical quality control by variables and by attributes, acceptance sampling. Letter grading.

C175A. Probability and Stochastic Processes in Electrical 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; Gaussian/Markov sequences, minimum variance estimator (Kalman filter) with applications. Concurrently scheduled with course C271A. Letter grading.

181A. Complex Analysis and Integral Transforms. (4) Lecture, four hours; Outside study, eight hours. Enforced requisite: course 82. Complex variables, analytic functions, conformal mapping, contour integrals, singularities, residues, Cauchy integrals, Laplace transform properties, properties of Fourier, non-linear transform: properties, convolution, FFT, applications in dynamics, vibrations, structures, and heat conduction. Letter grading.


M153B. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Bioengineering M153, Chemical Engineering M153, and Electrical and Computer Engineering M153) Lecture, three hours; laboratory, four hours; outside study, five hours. Enforced requisites: courses 10B, 12B, 120B, 120C, 128B, 129L. Graduate. Introduction to general manufacturing methods, mechanisms, constraints, and microfabrication and nanofabrication. Focus on concepts, physics, and industrial techniques in microfabrication and nanofabrication techniques that have been broadly applied in industry and academia, including various photolithography technologies, physical and chemical deposition methods, and wet chemistry etching methods. Hands-on experience for fabricating microstructures and nanostructures in modern cleanroom environment. Letter grading.

C180C. Nanofabrication and Manufacturing. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 183A. Rapid prototyping (RP), solid freeform fabrication, or additive manufacturing techniques emerged as popular manufacturing techniques to accelerate product creation in last two decades. Machine for layered manufacturing builds parts directly from CAD models. This novel method now enables making parts that have traditionally been impossible to fabricate because of their complex shapes or of variety in materials. In analogy to speed and flexibility of desktop publishing, RP is also called desktop manufacturing, with actual three-dimensional solid objects instead of mere two-dimensional images. Methodology of rapid prototyping has also been extended to techniques at nanoscale to produce three-dimensional functional miniature components. Concurrently scheduled with course C297A. Letter grading.

185. Introduction to Radio Frequency Identification and its Application in Manufacturing and Supply Chain. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course M20 or Civil Engineering M20 or Computer Science 31. Materials: Textbook and materials. Enforced requisite: assembly 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, sub-assemblies, and assemblies of products allow them to be tracked automatically as they move and transform through manufacturing supply chain. RFID tags have memory, which allow maintaining information about product status to be written, stored, and transmitted wirelessly. Tag data can then be forwarded by reader to enterprise software by way of RFID middleware layer. Such middleware layer is being utilized in manufacturing, with focus on automotive and aerospace. Letter grading.


C187L. Nanoscale Fabrication, Characterization, and Biotechnology Laboratory. (4) Lecture, two hours; laboratory, two hours; outside study, seven hours. Multidisciplinary course that introduces laboratory techniques of nanoscale fabrication, characterization, and biotechnology. Basic physical, chemical, and biological principles related to these techniques, top-down and bottom-up (self-assembly) nanofabrication, nanocharacterization [SEM, TEM, 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, four to eight hours. Special topics in mechanical and aerospace engineering for undergraduate students taught on experimental or temporary basis, as interest in such area of the visiting faculty members. May be repeated once for credit with topic or instructor change. P/NP or letter grading.

194. Research Group Seminars: Mechanical and Aerospace Engineering. (2) Lecture, two hours; outside study, one hour. Designed for undergraduate students who are part of 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 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


231B. Radiation Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Radiative properties of materials and radiation 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 insulation. 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 fabricated structures by three carriers: electromagnetic, phononic, and quantum carrier phenomena. Study of statistical properties of heat carriers, classical Landauer framework for heat flow, scattering and propagation of heat carriers, derivation of classical laws from microscopic transport. Scattering of heat carriers from classical laws at small scale. Term project. Concurrently scheduled with course C131G. Letter grading.

233. Nanoscience for Energy Technologies. (4) Lecture, four hours; outside study, eight hours. Introduction to the energy technologies that allow transport, conversion, and storage at nanoscale, and recent development for these energy technologies involving 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 materials 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, multiplegroup methods, introduction to transport theory. Letter grading.

C237. Design and Analysis of Smart Grids. (4) Lecture, four hours; outside study, eight hours. Demand response; transactive/price-based load control; home-area network, smart energy profile; advanced meter infrastructure; renewable energy integration; solar and wind generation intermittency and correc- tion; microgrids; grid stability; energy storage and electrical vehicle simulations; integration of renewable energy and transmission grids; consumer-centric technologies; sensors, communications, and computing;wireless, wireline, and powerline communications for smart grids; grid modeling, stability, and control; frequency and voltage regulation; ancillary services; wide-area situational awareness, phasor measurements; analytical methods and tools for monitoring and control; Concurrently scheduled with course C137. Letter grading.

M237B. Fusion Plasma Physics and Analysis. (4) (Same as Electrical and Computer Engineering M287.) Lecture, four hours; outside study, eight hours. Fundamentals of plasmas at various plasma conditioning conditions. Falkor/Planck equation and applications to heating by neutral beams, RF, and fusion reaction products. Bremsstrahlung, synchrotron, and atomic radiative processes. Fusion reactor concepts and technologies. Analysis and design of high heat flux components, energy conver- sion and tritium breeding components, radiation shielding, magnets, and heating. Letter grading.

C238. Introduction to Statistical Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 105A, 105D. Introduction to basic concepts and tools of statistical thermodynamics. Abstract concepts of entropy, temperature, and chemical potential are explained by developing these concepts from ground up using only mechanical and statistical principles. Discussion of equilibrium properties of thermodynamic systems including free energy contributions. Provides sound foundation for further studies in transport phenomena, plasma, chemical kinetics, micro/nano- scale science and technology, and other related subjects. Concurrently scheduled with course C138. Letter grading.

C239B. Seminar: Current Topics in Transport Phe- nomena. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Lectures, discussions, student presentations, and proj- ects in areas of current interest in transport phe- nomena. May be repeated for credit. S/U grading.

C239F. 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 cur- rent study of one or more aspects of heat and mass transfer, such as turbulence, stability and transition, buoyancy effects, variational methods, and measure- ment techniques. May be repeated for credit with topic change. S/U grading.

242L. 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 in nuclear engineering, such as reactor safety, risk-benefit trade-offs, nuclear materi- als, and reactor design. May be repeated for credit with topic change. S/U grading.
242. Introduction to Multiferroic Materials. (4) Lecture, four hours; outside study, eight hours. Overview of different types of multiferroic materials, including strain mediated. Basic crystal structure of single-phase multiferroics, as well as fundamental physics underlying multiferroics and ferromagnets. Material science description of these materials, with focus on linear and nonlinear behavior with associated analytical tools necessary to predict material response ranging from constitutive relations to governing equations, including elastodynamics and Maxwell’s analytical and physical descriptions used to explain several devices manufactured with multiferroics, including magnetoertors, memory devices, motors, and antennas. Letter grading.

250A. Foundations of Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Required: course 150A. Introduction to fundamentals of fluid mechanics; constitutive relations, exact solutions on the Navier-Stokes equations, boundary conditions. Letter grading.

250B. Viscous and Turbulent Flows. (4) Lecture, four hours; outside study, eight hours. Required: course 150A. Conservation equations; shear flows, instabilities, transition, and turbulent shear flows. Letter grading.

250C. Compressible Flows. (4) Lecture, four hours; outside study, eight hours. Required: courses 150A, 150B. Effects of compressibility in viscous and inviscid flows. Steady and unsteady inviscid and supersonic flows; method of characteristics; small disturbance theories (linearized and hypersonic); shock dynamics. Letter grading.


250E. Spectral Methods in Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Required: 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 of functions, discrete Fourier transform, etc. Letter grading.

250F. Hypersonic and High-Temperature Gas Dynamics. (4) Lecture, four hours; outside study, eight hours. Recommended: course 250A. Molecular and chemical description of equilibrium and nonequilibrium hypersonic and high-temperature gas flows, chemical thermodynamics and statistical thermodynamics, for calculation of gas properties, equilibrium flows of real gases, vibrational and chemical rate processes, nonequilibrium flows of real gases, and computational fluid dynamics methods for nonequilibrium hypersonic flows. Letter grading.

2520. Fluid Dynamics of Biological Systems. (4) Lecture, four hours; outside study, eight hours. Required: concepts of mechanics of aquatic locomotion; insect and bird flight; and the aerodynamic flow in circulatory system; rheology of blood; transport in microcirculation; role of fluid dynamics in arterial diseases. Concurrently scheduled with course C150G, Letter grading.


2520P. Aircraft Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Required: courses 150A, 150B. Thermodynamic properties of gases, aircraft jet engine cycle analysis and component performance, component matching, advanced aircraft engine topics. Concurrency scheduled with course C150P. Letter grading.


252A. Stability of Fluid Motion. (4) Lecture, four hours; outside study, eight hours. Required: course 150A. Mechanisms by which laminar flows can become unstable and lead to secondary motions. Linear stability theory; thermal, centrifugal, and shear instabilities; boundary layer instability. Nonlinear analysis; sufficient criteria for stability, subcritical instabilities, supercritical stability, transition to turbulence. Letter grading.


252D. Combustion Rate Processes. (4) Lecture, four hours; outside study, eight hours. Required: course 252C. Basic concepts in chemical kinetics: molecular collisions, distribution functions and averaging, semiconical and hyperbolic approximations, trajectory calculations, statistical reaction rate theories. Practical examples of large-scale chain mechanisms from combustion chemistry of several elements, etc. Letter grading.

252P. Plasma and Ionized Gases. (4) Lecture, four hours; outside study, eight hours. Required: courses 82, 102, 150A, 182B. Neutral and charged particle motion, magnetohydrodynamics, two-fluid plasma 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, reactions, and plasmas. Letter grading.

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, supersonic booms, and unsteady aerodynamics. Letter grading.

255A. Advanced Dynamics. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Required: course 150A. Stability, space-state inter- pretation; stabilization by determination, linearization, and Lyapunov direct method; the Hamiltonian and Lagrangian formalisms, nonautonomous systems; averaging and perturbation methods of nonlinear analysis; parametric excitation and nonlinear resonance. Application to mechanical systems. Letter grading.

255A. Linear Elasticity. (4) Same as Civil Engineering M224B. Lecture, four hours; outside study, eight hours. Required: course 150A or 166A. Linear elastodynamics. Cartesian tensors; infinitesimal strain tensor; Cauchy stress tensor; strain energy; equilibrium equations; linear constitutive relations; plane elastic problems, holes, corners, inclusions, cracks; three-dimensional problems of Kelvin, Boussinesq, and Cerruti. Introduction to boundary integral equation method. Letter grading.

255B. Nonlinear Elasticity. (4) Same as Civil Engineering M230B. Lecture, four hours; outside study, eight hours. Required: course M255A. Kinematics of continuous media; constitutive equations, 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.

255C. Plasticity. (4) Same as Civil Engineering M230C. Lecture, four hours; outside study, eight hours. Required: course M255B. Classical rate-independent plasticity theory; yield functions, flow rules and thermodynamics. Classical rate-dependent viscoplasticity, plane strain, and initial conditions, principle of energy. Sources and waves in unbounded isotropic, anisotropic, and dissipative solids. Half-space problems. Guided waves in layered media. Applications to dynamic fracture, non-destructive evaluation (NDE), and mechanics of earthquakes. Letter grading.


255A. Nanomechanics and Micromechanics. (4) Lecture, four hours; outside study, eight hours. Required: course M255A. Analytical and computational modeling methods to describe mechanics of materials at scales ranging from atomistic through microstruc- tural and 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 statistical mechanics methods in areas of nanostructure and microstructure self-organization, heterogeneous plastic deformation, material instabilities, and failure phenomena. Presentation of technical applications or these emerging modeling techniques to surfaces and interfaces, grain boundaries, dislocations and defects, surface growth, quantum dots, nanotubes, nanoclusters, thin films (e.g., optical thermal barrier coatings and ultrastrong nanolayer materials), nano-identification, smart (active) materials, nanobending and micro-bending, and torsion. Letter grading.

259A. Finite-Element Topics in Fluid Mechanics. (4) Seminar; four hours; outside study, eight hours. Advanced study of topics in fluid mechanics, with intensive student participation involving assignments leading to term paper or oral presentation (possible help from guest lecturers). Letter grading.

259B. Seminar: Advanced Topics in Solid Mechanics. (4) Seminar; four hours; outside study, eight hours. Advanced study of topics in solid mechanics, with intensive student participation involving assignments leading to term paper or oral presentation (possible help from guest lecturers). Letter grading.

260. Current Topics in Mechanical Engineering. (2 to 4) Seminar; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Lectures, discussions, 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 Structures. (4) Lecture; four hours; outside study, eight hours. Requisite: course 156A or M256A, or consent of instructor. Strongly recommended requisite: course 166C. Constitutive relations for electro-magneto-mechanical materials. Fiber-optic sensor technology. Micro/macro analysis, including classical laminate theory, shear lag theory, composite plates, and shells. Homogenization methods, weak forms, and homogenization techniques as they apply to active materials. Active systems design, insect-worm, and biomorph. 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 and parallel robotic manipulators, including review of spatial descriptions and transformations along with direct and inverse kinematics, linear and angular velocities, Jacobian matrix (velocity and force), velocity-propagation method, force-propagation method, explicit formulation of Jacobian matrix, manipulator dynamics (Newton-Euler, Lagrange-Mansfield) and simulation of minimum trajectory generation, introduction to parallel manipulators. Letter grading.

263C. Control of Robotic Systems. (4) Lecture; four hours; discussion, two hours; outside study, six hours. Requisite: course 232A. Linear and nonlinear control techniques, feedback control, classical feedback control, and advanced control topics from nonlinear and adaptive control, hybrid control, nonholonomic systems, vision-based control, and perception. Letter grading.

263D. Advanced Topics in Robotics and Control. (4) Lecture; four hours; outside study, eight hours. En- forced requisite: course 263C. Current and advanced topics in robotics and control, including kinematics, dynamics, control, mechanical design, advanced 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 M270A or Electrical Engineering M240A. Existence and uniqueness of solutions to linear quadratic (LQ) optimal control problems for continuous-time and discrete-time systems, finite-time and infinite-time problems; Hamiltonian systems and optimal control; algebraic and differential equations; implications of controllability, stabilizability, observability, and detectability solutions. Letter grading.

M270C. Optimal Control. (4) (Same as Chemical Engineering M280C and Electrical and Computer Engineering M420A.) Lecture; four hours; laboratory, two hours; outside study, eight hours. Requisite: course 270B. Applications of variational methods, Pontryagin maximum principle, Hamilton/Jacobi/Bellman equation (dynamic programming) to optimal control of dynamical systems modeled by nonlinear ordinary differential equations. Letter grading.

C271A. Probability and Stochastic Processes in Dynamical Systems. (4) Lecture; four hours; outside study, eight hours. Enforced requisite: courses 82, 107. Probability spaces, random variables, stochastic sequences and processes, expectation, conditional expectation, Gaussian/Martingale, Wiener process, minimum variance estimator (Kalman filter) with applications. Consecutively scheduled with course C175A. 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, consistency and mean and risk filters. 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, differential games, nonlinear estimation, adaptive filtering, industrial and aerospace applications. Prerequisites: courses M270A, M270B, or C271A. Letter grading.


275A. System Identification. (4) Lecture; four hours; outside study, eight hours. Applications of identification methods to identification of dynamical systems from input/output data, with emphasis on identification of discrete-time (digital) models of sampled-data systems. Coverage of convergence of continuous-time systems, transfer functions and state-space models. Discussion of applications in mechanical and aerospace engineering, including identification of flexible structures, microelectromechanical systems (MEMS) devices, and acoustic ducts. Letter grading.


277. Advanced Digital Control for Mechatronic Systems. (4) Lecture; four hours; laboratory, two hours; outside study, six hours. Requisites: courses 171B, M270A. Digital signal processing and control architecture, fixed-point, floating-point, state-space, and z-plane based digital control algorithms and robustness properties. Youla parameterization of stabilizing controllers, previewed optimal feedback compensator, repetitive and learning control algorithms. Real-time control investigation of topics to selected mechatronic systems. Letter grading.
279. Dynamics and Control of Biological Oscilla-
tions. (4) Lecture, four hours; outside study, eight 
hours. Requisites: courses 102, 103, 105D. Fundamental 
issues of being in microscopic world and mechanical 
engineering of microscale de-

281. Microsciences. (4) Lecture, four hours; outside 
study, eight hours. Requisites: courses 102, 103, 105A, 105D. 
Introduction to fundamental physical phenomena occurring at interfaces and application of their knowledge to engineering problems. Funda-

tential concepts and phenomena including surface tension, surfactants, interfacial thermody-

(4) Lecture, four hours; outside study, eight hours. 
Principles and performance of micro transducers. 
Applications of using unique properties of micro trans-
ducers for distributed and real-time control of engi-

285. Interfacial Phenomena. (4) Lecture, four hours; 
outside study, eight hours. Introduction to chemical aspects of biological observation and condensation, forms and emulsions, microelectro-

tromechanical systems, and biological systems. Letter 
grading.

286. Applied Optics. (4) Lecture, four hours; discus-
tion, two hours; outside study, six hours. Requisite: 
Physics 1C. Fundamental principles of optical sys-
teams. Geometric optics and aberration theory. Diffraction 
and interference. Fourier optics, beam optics. Propagation, refraction, reflection, and Huygens' principle. Refraction and reflection. Plane waves, spherical waves, 
and image formation. Total internal reflection. Polarization, polarizers, and wave-plates. Lenses and aberrations, lens laws and formation of images, reso-
nication and primary aberrations. Simple optical instru-
tants, still cameras, shutters, apertures. Design of 
telescopes, microscope design, projection system de-
sign. Interference and diffraction. Fabrication of 
Michelson interferometer, multiple-beam interfer-
to and thin film coatings. Diffraction theory, Fraunhofer and Fresnel diffraction, Fresnel zone plate. Fiber optics, fibers, modes, fibers, and their processing. 

types of fiber: single and multimode. Concurrently scheduled with course C186. Letter grading.

287. Nanoscience and Technology. (4) Same as 
Electrical and Computer Engineering M257.) Lecture, four hours; outside study, eight hours. Introduction to fundamentals of nanoscale science and technology. Basic physical principles, quantum mechanics, chem-

tical bonding and nanostructures, top-down and 
bottom-up (self-assembly) nanofabrication, nanochar-
acterization; nanomaterials, nanoelectronics, and 
nanobiodetection technology. Introduction to new 
knowledge and techniques in nano areas to under-
tand scientific principles behind nanotechnology and 
inspire students to create new ideas in multidiscipli-
nary nano areas. Letter grading.

287L. Nanoscale Fabrication, Characterization, 
and Biodetection Laboratory. (4) Lecture, two 
hours; laboratory, three hours; outside study, eight 
hours. Multidisciplinary course that introduces laboratory 
techniques of nanoscale fabrication, characterization, and 
biomedical principles related to therapeutic applications, 
top- 
down and bottom-up (self-assembly) nanofabrication, 
nanocharacterization (AEM, SEM, etc.), and optical 
and electrochemical biosensors. Students encour-
gaged to create their own ideas in self-designed exper-
iments. Concurrently scheduled with course C187L. Letter grading.

29A. Compliance Mechanism Design. (4) Lecture, 
four hours; outside study, eight hours. Requisite: linear 
algebra. Advanced compliant mechanism synthesis approaches, modeling techniques, and optimization tools. Fundamentals of flexible constraint theory, prin-
ciples of compliant mechanism design, geometric ap-
plication in process integration. Materials issues such as 
chemical resistance, corrosion, mechanical properties, 

29A1. Seminar: Systems, Dynamics, and Control 
Topics. (2) Same as Chemical Engineering M298S.) 
Seminar, two hours; outside study, six hours. Designed for graduate engineering students. Presentations of re-
teaching by leading academic researchers from fields of systems, dynamics, and control. Students who work in those fields present their papers and re-

29B. Tutorial, to be arranged. Limited to graduate 
mechanical and aerospace engineering students. Supervised tutorials, reading and pr-

29B1. Tutorial, to be arranged. Limited to graduate 
mechanical and aerospace engineering students. Presentation of material, including use of visual aids; 
grading, advising, and rapport with students. S/U grading.

29B2. Preparation for PhD Preliminary Exam-
ination. (2 to 4) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering stu-
dents. Reading and preparing for PhD comprehensive 

29B4. Preparation for PhD Oral Qualifying Exam-
ination. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering stu-
dents. Reading and preparing for PhD oral qual-
ifying examination. S/U grading.

29B5. Preparation for PhD Oral Qualifying Ex-
aminations. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering stu-
and courses offered, see the Department website. For more details on the Department of Medicine or letter grading.

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 information acquisition through history taking, physical examination, and laboratory evaluation; information synthesis through achieving a differential diagnosis and evaluative plan; and medical decision making for continued evaluation and therapy. Students are encouraged and guided in developing a caring physician/patient relationship.

Instruction in the department is provided in all four basic courses in microbiology and parasitology of invertebrates, with an emphasis on infectious diseases, with coverage of bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Schools of Dentistry, Nursing, and Public Health during weeks two through five.

Letter grading.

M260A-M260B. Methodology in Clinical Research I, II. (4-4) (Same as Biostatistics M260A-M260B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Requires: 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, 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, 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 Bioinformatics M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (MD, DDS, DNsc, or PhD.). Overview of principles of clinical pharmacology, especially those that relate to clinical and translational medicine 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. 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, multicompartiment, 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 M220, and Computer Science M296B.) Lecture, four hours; outside study, eight hours. Requisite: course M270C or Bioengineering CM286 or Biostatistics 220. 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 testing hypothesis 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.

Medicine

Lower-Division Courses

M215. Interdepartmental Course: Tropical Medicine. (2) (Same as Pathology M215 and Pediatrics M215.) Lecture, two and one half hours. Preparation: basic courses in microbiology and parasitology of infectious diseases in School of Medicine or Public Health. Study of current knowledge about diseases prevalent in tropical areas of the world. Major emphasis on infectious diseases, with coverage of problems in nutrition and exotic noninfectious diseases. Syllabus supplements topics covered in classroom. P/NP grading.

M225. Interdisciplinary Response to Infectious Disease Emergencies: Medicine Perspective. (4) (Same as Community Health Sciences M256, Nursing M225A, and Oral Biology M256.) 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 Dentistry, Nursing, and Public Health during weeks two through five.
M270E. Advanced Topics and Research in Biomedical Systems Modeling and Computing. (4) (Same as Bioengineering M296C and Computer Science M296C.) Lecture, four hours; outside study, eight hours. Requisite: course M270D. Research techniques and experience on special topics involving models, modeling methods, and model/computing in biological and medical sciences. Review and critique of literature. Research problem searching and formulation. Approaches to solutions, individual MS- and PhD-level project training. Letter grading.


**Microbiology, Immunology, and Molecular Genetics**

**College of Letters and Science and David Geffen School of Medicine**

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Genhong Cheng, PhD
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James S. Economou, MD, PhD
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H. Ronald Kaback, MD
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Meghan M. McEvoy, PhD
M. Carrie Miceli, PhD
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**Professors Emeriti**

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Lawrence T. Feldman, PhD
C. Fred Fox, PhD
Robert P. Gunsalus, PhD
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Melody Man 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
Erin 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 recombiant 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 experiences, 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, 14CL, 14C, and MD, 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, 4AL, and 4BL, 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 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-
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 153A, 153B 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 101AL and 101BL or (b) 109AL and 109BL, (3) two focused elective courses selected from Chemistry and Biochemistry 153L, Microbiology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132, CM156, 158, 168, CM256, Molecular, Cell, and Developmental Biology 138, 165A, 165B, CM136, CM145, CM178, CM275, (4) two upper-division courses selected from Chemistry and Biochemistry 153L, Microbiology, Immunology, and Molecular Genetics 103AL, 103BL, 109AL, 109BL, CM122, CM124, Microbiology, Immunology, and Molecular Genetics 103AL, 103BL, 109AL, 109BL, CM222, 191H, 198C, 199, Molecular, Cell, and Developmental Biology 100, 104AL, 138, M140, C141, 143, 144, C150, 165A, 168, 172, M175A, M175B, M175C, 187AL, Neuroscience M101A, Microbiology, Immunology, and Molecular Genetics 101, C185A, (2) one general elective course selected from any course under item 3 above, Bioengineering 100, CM145, CM178, Biostatistics 100A, Chemistry and Biochemistry 103,

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, 16028 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 departmental honors. The department also offers an honors seminar course each winter quarter that is required for the honors program. For more information, contact the Student Affairs Office, 16028 Molecular 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 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 home area in Graduate Programs in Bioscience.

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 the 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.

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.

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 20L with grades of C- or better. Recommended
corresponding course, 101, Limited to non-majors. 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 cooperatively, to perform experiments, record observations, and analyze results. Letter grading.

101. Introductory Microbiology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3 or 4, and Chemistry 13A. A critical foundation in microbiology; introduction to bacterial structure, physiology, biochemistry, genetics, and ecology. Letter grading.

102. Introductory Virology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, or 7A, 7B, and 23L with grades of C– or better. Biological properties of bacterial and animal viruses, replication, methods of detection, interactions with host cells and multicellular hosts. 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. Course 103AL is limited to 103BL. Limited to Microbiology, Immunology, and Molecular Genetics and Molecular, Cell, and Developmental Biology majors. Research-oriented laboratory experience designed to develop novel bacterial viruses (phages). Working in teams, students conduct research projects that incorporate techniques in microbiology, virology, and molecular biology and involve use of bioinformatics tools and computational analysis software. Emphasis on reading and understanding scientific literature as well as improving critical thinking skills such as ability to 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.

103BL. Advanced Research Analysis in Virology. (4) Laboratory, six hours. Requisites: course 103AL, and Life Sciences 40 or Statistics 13. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors. Designed to provide students authentic, discovery-based research experience in life sciences. Investigative computational analysis in nature whereby students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures, cell illustrations, posters, re- ports, and websites (database entries). Research accomplishments discussed 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 required. Letter grading.

122. 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 genetics has greatly increased power and scope of mouse genetics, and 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, development, and genetic dissection of disease. Concurrently scheduled with course C222. P/NP or letter 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 discovery-based research experience, working as research team to analyze 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 annotation efforts may lead to publication in peer-reviewed science journal. Part of DOE Joint Genome Institute Undergraduate Research Program Gene Annotation education program. Offered in summer only. Letter grading.


C134. Ethics and Accountability in Biomedical Research. (2) Lecture. Course 196A or 198B. Students 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 deliverables that demonstrate research achievements and creation sense of pride for work accomplished as skilled researchers. Letter grading.


C185B. Advanced Immunology and Applications. (2) (Formerly numbered 185B.) Lecture, 90 minutes. Requisite: course C185A. 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 or prevent invasion by pathogens or cancer cells without trig-
188A. 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. May be repeated 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. 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. Must have 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 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 students in College Honors Program. Designed to complement adv. science discipline course. Offered in advanced level and individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

197. Individual Studies in Microbiology, Immunology, and Molecular Genetics. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Offered for graduate and undergraduate students covering fundamentals and recent advances in molecular and cellular immunology. Oral presentation required. P/NP or letter grading.

198A-B-C. Honors Research in Microbiology, Immunology, and Molecular Genetics. (4–4–4) Tutorial, 12 hours. Course 198A is requisite to 198B, which is requisite to 198C. Limited to junior/senior microbiology, immunology, and molecular genetics honors program students. Directed individual research for departmental honors; students must have faculty sponsor. Progress report must be submitted to faculty mentor at end of term. Students submit thesis submitted at end of final term. Maximum of 8 units may be applied toward major, with balance applied toward BS degree requirements. Individual contract required. Letter grading.

199. Directed Research in Microbiology, Immunology, and Molecular Genetics. (4) Tutorial, 12 hours. Preparation: minimum 2.5 grade-point average in premajor and major. Supervised individual research project under guidance of departmental faculty member. Any of reports must be filed with Student Affairs Office by end of term. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

C222. Mouse Molecular Genetics. (2) Seminar, two hours. Requisite: Life Sciences 4, or 7A, 7B, and 7C. Designed for students doing research with mice. During past 25 years, molecular revolution has greatly increased power and scope of mouse genetics, and today mouse is primary experimental model in virtually all fields of biology and biomedicine. Seminar forum for in-depth discussion of major developments in genetics and research with mouse models and their application to functional genomics, complex traits, stem cell biology, development biology, epigenetics, and genetic dissection of diseases. Concurrently scheduled with course C122. S/U or letter grading.

M229. 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 microbial 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, not described. Enrolled for graduate students and undergraduates who have credit for life sciences or biomedical individual studies 199 course. Responsibilities and ethical conduct of investigators in research, data management, publication, 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. Currently scheduled with course C134. S/U grading.

CM256. 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 variability, Mendelian and common diseases, cancer genetics, animal models, cytogenetics, pharmacogenetics, 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. Limited to graduate students. Course aimed for graduate students and selected undergraduate students covering fundamentals and recent advances in molecular and cellular immunology. Oral presentation required. P/NP or letter grading.

262A-262B-262C. Seminars: Current Topics in Immunobiology 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.

285. Immunology. (5) Lecture, three 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 immunochemistry; cellular and molecular aspects of humoral and cellular immune reactions. Concurrently scheduled with course C185A. Letter grading.

296. 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 responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495A. Preparation for Teaching Microbiology in Higher Education I. (2) Seminar, one hour. Requisite or corequisite: course 495A. Designed for graduate students. Study of problems and methodologies in teaching microbiology, including workshops, seminars, apprentice teaching, and peer observation. S/U grading.

495B. Preparation for Teaching Microbiology in Higher Education II. (1) Seminar, one hour. Requisite for course 495A. Designed for first-time 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.


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**MILITARY SCIENCE — ARMY ROTC**

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Tyrone L. Vargas, MBA, Major
Eric A. Whipple, BS, Captain

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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 Officers’ Training Corps (ROTC) was established on the Los Angeles campus of the university 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 $4,200 per month during the academic year. Applications for four-year scholarships may be obtained online. Completed four-year applications should be submitted by February 28 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, Navy 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 mountaineering 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 Reserve 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 Reserve 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 consist
ing 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 36 specialty areas in either the Army National Guard, 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; lower-division cadets must also be under a contracted obligation with department. Designed to allow cadets to apply leadership techniques and military skills taught in classroom and laboratory settings. 90. Commissioning and a bachelor's degree may lead to a commission as a second lieutenant in the Army Reserves, National Guard, or Active Army.

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. Preparation 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 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 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 to finalize course syllabus. 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.
Molecular and Medical Pharmacology

David Geffen School of Medicine

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Molecular and Medical Pharmacology
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Department e-mail

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Harvey R. Herschman, PhD, Vice Chair
Caius G. Radu, MD, Vice Chair
R. Michael van Dam, PhD, Vice Chair

Faculty Roster

Professors

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Gautam Chaudhuri, MD, PhD
Samson A. Chow, PhD
Timothy F. Cloughesy, MD
Johannes Czernin, MD
Magnus Dahlbom, PhD, in Residence
Timothy R. Donahue, MD
Steven M. Dubinett, MD
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Frederick (Fritz) C. Elber, MD
Thomas G. Graebner, PhD
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Aron F. Hadjioannou, PhD
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Donald B. Kohn, MD
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Paul A. Krogsdall, MD, PhD
Raphael D. Levine, PhD
Linda M. Liu, MD, MBA, PhD
Gerald S. Lipshutz, MD, in Residence
Roger S. Lo, MD, PhD
Edythe D. London, PhD, in Residence (Thomas P. and Katherine K. Pike Professor of Addictive Studies)
John C. Mazzotti, MD, PhD
William P. Meleaga, PhD, in Residence
Michael E. Phelps, PhD (Norton Simon Professor of Biophysics)
Robert M. Prins, PhD, in Residence
Caius G. Radu, MD
Srinivasa T. Reddy, PhD, in Residence
Antoni Ribas, MD
Orian Shirihai, MD, PhD
Desmond Smith, MD, PhD
Ren Sun, PhD
Yi E. Sun, PhD, in Residence
Haian-Rong Tseng, PhD
R. Michael van Dam, PhD
Owen N. Witte, MD (Presidential Professor of Developmental Immunology)
Lily Wu, MD, PhD

Professors Emeriti

Jorge R. Barrio, PhD
Arthur K. Cho, PhD
Cameron B. Gundersen, PhD
Sung-Cheng (Henry) Huang, DSc
Louis J. Ignarro, PhD (Nobel laureate, Jerome J. Belzer Professor Emeritus of Medical Research)

Richard W. Olsen, PhD
Majcherczyk Satyamurthy, PhD
Heinrich R. Schelbert, MD, PhD
Anna M. Wu, PhD

Associate Professors

Steven J. Bensinger, VMD, PhD
Heather R. Christofk, PhD
Sherril G. Howard, PhD
Huiying Li, PhD
Ting-Ting Wu, PhD, in Residence

Assistant Professors

Peter M. Clark, PhD
Ajit S. Divakaruni, PhD
Marc Liess-Roig, PhD, in Residence
Jennifer M. Murphy, PhD
David A. Nathanson, PhD
Hans David S. Ullmert, MD, PhD, in Residence

Adjunct Professors

Robert D. Danoiseaux, PhD
James R. Heath, PhD
Mei-sheng Jiang, PhD
Jide Tian, MD
Hong Wu, MD, PhD

Adjunct Associate Professors

G. Ken Hermann, MD, MBA
Joy A. Umbach, PhD

Adjunct Assistant Professors

Heather D. Agnew, PhD
Vaithilingarau Arumugaswami, PhD
Daniel Braas, PhD
Jason T. Lee, PhD
Tove Olafsen, PhD
Saman Sadeghi, PhD
Roger J. Slavik, PhD
Ratan N. Tata

Scope and Objectives

The Department of Molecular and Medical Pharmacology offers an opportunity for gifted students to 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 both 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 Specialty Training and Advanced Research (STAR) program in which candidates are post-MD house staff (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

M110A. Drugs: Mechanisms, Uses, and Misuse. (4) (Same as Molecular Toxicology M110A.) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: Life Sciences 2, 3. Course M110A is requisite to 110B. Introduction to pharmacology and toxicology for undergraduate students, emphasizing drug development and mechanisms of action of drugs and toxic agents. Letter grading.

110B. Drugs: Mechanisms, Uses, and Misuse. (4) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: course M110A, Life Sciences 2, 3. Introduction to pharmacology for undergraduate students, emphasizing principles under-
lying mechanism of action of drugs, their development, control, rational use, and misuse. Letter grading.

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 writing. 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 8) 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. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Introduction to Laboratory Research. (8) Lecture, six hours; laboratory, five hours. Required of all incoming graduate students. At the 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.

203. Medical Pharmacology. (2) Lecture, zero to two hours; discussion, zero to two hours. Requisites: courses 211A, 211B. Series of lectures and case presentations designed to illustrate principles of pharmacology in a clinical context, and solution of practical therapeutic problems by reference to pharmacokinetics, mechanisms of action, and disposition of drugs. S/U or letter grading.

M205A. Introduction to Chemistry of Biology. (4) (Same as Chemistry CM205A.) Lecture, three hours; discussion, one hour. Introduction to chemical biology. Topics include computational chemical biology, utility of synthesis 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/Biology Interface. (2) (Same as Chemistry CM205B.) Seminar, one hour. Requisite: course M205A. Selected talks and papers presented in teaching faculty on solving problems and utilizing tools in chemistry and molecular biology on chemistry/biology interface (CBI). S/U grading.

211A-211B. Principles of Pharmacology. (4–2) Lecture, three to eight hours; discussion, zero to nine hours. Preparation: mammalian physiology, biochemistry. Systematic consideration of principles governing interaction between drugs and biological systems and of principal groups of drugs used in therapeutics. Particular attention on modes of action, pharmacokinetics, and disposition to provide a scientific basis for their rational use in medicine. S/U or letter grading.

212A-212B. Graduate Commentary: Medical Pharmacology. (2–2) Lecture, four hours in total. Survey of experimental methods and instrumentation used in analysis, identification, and study of mechanisms of action of pharmacologically active compounds. S/U or letter grading.

234A-234B. Experimental Methods in Pharmacology. (2–2) Laboratory, five hours. Laboratory exercises in the use of experimental methods and instrumentation used in analysis, identification, and study of mechanisms of action of pharmacologically active compounds. S/U or letter grading.

237. Research Frontiers in Cellular and Molecular Pharmacology. (6) 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.

M241. Introduction to Chemical Pharmacology and Toxicology. (8) (Same as Molecular Toxicology M241.) Lecture, six hours. Preparation: organic and biological chemistry, chemistry. Introduction to general principles of pharmacology. Emphasis on recent contributions of special interest to advanced PhD candidates and faculty. Letter grading.

M248. Introduction to Biological Imaging. (4) (Same as Bioengineering M248 and Physics and Biology in Medicine M248.) Lecture, three hours; laboratory, one hour. Outside study, seven hours. Exploration of role of imaging, biological imaging in modern biology and medicine, including imaging physics, instrumentation, image processing, and applications of imaging for range of action of drugs. S/U or 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 organs. Letter grading.

M258. Pathologic Changes in Toxicology. (4) (Same as Pathology M258.) Requisite: course M257. Designed to give students experience in learning normal histology of tissues which are major targets of toxic agents and the range of pathological changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system). S/U or letter grading.

261. Institute for Molecular Medicine Seminar Series: Analysis and Discussion. (2) Seminar, one hour. Corequisite: course 251. Limited to graduate students. In-depth evaluation of Institute for Molecular Medicine (IMED) Seminar speakers, with focus on scientific, technological, ethical and social aspects of new hypotheses and current findings (past and present), relevant background information on speakers and their interests, and presentation style and communication strengths. Discussion on characteristics that define and shape leaders in given fields. Students host lunches with seminar speakers, lead discussions to deconstruct all aspects of seminar presentations, and submit write-ups for online Wiki postings on seminar-specific scientific topics. S/U grading.

268. Business of Science: Exploring Entrepreneurship Seminar. (1) Seminar, one hour. Limited to graduate students. Further exploration of topics discussed in 287. Students will 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 and entrepreneurship in technology sectors. Basic business skills taught to effectively 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 formulation 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, including treatment of human disease 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. Exploration 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, develop 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.

293. Nitric Oxide Chemistry, Biochemistry, and Physiology. (2 or 4) Lecture, two or four hours. Basic chemistry, biochemistry, and physiology of nitric oxide and related species, with emphasis on understanding novel mechanisms of nitric oxide function as both a physiological and pathophysiological agent/messenger. S/U or letter grading.

298. Seminar: Current Topics in Molecular and Medical Pharmacology. (2) Limited to pharmacology, ACCESS program, and interdepartmental Molecular Biology PhD program students. Students conduct or participate in discussions on assigned topics. 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.


Molecular Biology

Interdepartmental Program

College of Letters and Science

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Molecular Biology
310-267-5209
Program e-mail
M. Luisa Iruela-Arispe, PhD, Chair

Faculty Committee

Peter J. Bradley, PhD (Microbiology, Immunology, and Molecular Genetics)
Michael F. Carey, PhD (Biological Chemistry)
Feng Guo, PhD (Biological Chemistry)
M. Luisa Iruela-Arispe, PhD (Molecular, Cell, and Developmental Biology)
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, onco genes 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 (MS) and Doctor of Philosophy (PhD) 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 in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Seminar, tutorial, to be arranged. Directed individual student research, with credit for course limited to one unit 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. 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 first-year Molecular Biology PhD students. Stu dents 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.

254B. Concepts in Molecular Biosciences. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced requisites: 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.

256. Current Topics in Molecular Biology. (2) 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

College of Letters and Science

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Harumi Kasamatsu, PhD
James A. Lake, PhD
John R. Merriam, PhD
Paul H. O’Lague, PhD
Winston A. Salser, PhD
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Arjun Deb, MD
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Assistant Professors
Siobhan A. Braybrook, PhD
Andrew S. Goldstein, PhD, in Residence
Lachezar (Luke) A. Nikolov, PhD
Jesse R. Zamudio, PhD

Lecturers
Mitra J. Hooshmand, PhD
Pei-Yun Lee, PhD

Adjunct Assistant Professors
Ira E. Clark, PhD
Nathanael Prunet, PhD

Scope and Objectives

The revolution in modern biology that began with the elucidation of the structure of DNA by Watson and Crick in the 1950s has had a profound effect not only on biological research, but on the way biology is taught as a subject. The field of biology spawned by this discovery, generally called molecular biology, has provided an entirely new framework within which to approach questions in cell and developmental biology. The specializations, both technical and conceptual, demanded by this field have led to the growth of molecular biology and its related disciplines into an essentially separate branch of scientific inquiry.

Students who complete the requirements for the Bachelor of Science degree in the Department of Molecular, Cell, and Developmental Biology are exceptionally well prepared to pursue careers in cellular and subcellular biological research, biomedical research, or medicine or allied health fields. The degree combines essential background studies in mathematics, chemistry, and physics with a general introduction to all of the biological subjects, as well as in-depth exposure to key topics in molecular, cell, and developmental biology. The PhD degree offers opportunity for advanced concentrated study and requires independent and innovative research that ultimately results in publishable dissertation materials.
Undergraduate Study

Molecular, Cell, and Developmental Biology BS

The Bachelor of Science degree in Molecular, Cell, and Developmental Biology (MCDB) 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 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, 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.

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 191 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 10A, 10B, 10C, 16, and Life Sciences 40 or Statistics 13, and (3) completing one course from Computer Science CM124, CM186, Chemistry and Biochemistry C100, C160A, Molecular, Cell, and Developmental Biology 187AL, or Physiological Science 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 108 (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 (CPh), 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.
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 members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

30H. Collaborative Undergraduate Research Laboratory in Yeast, Genetics, and Molecular Biology. (5) Lecture, two hours; laboratory, six hours. Limited to 24 students in Collaborative Undergraduate Research Laboratory (CURL). Sponsored by Howard Hughes Medical Institute Professors Program. Basic training in biological research, covering topics in molecular genetics, molecular biology, model organism biology, and data analysis. Letter grading.

40. AIDS and Other Sexually Transmitted Diseases. (5) Lecture, three hours; discussion, one hour; experimental service learning, one hour. Biology of HIV blended with socioeconomic problems associated with AIDS. Discussion of contemporary public health approaches to control human immunodeficiency virus and address of other sexually transmitted diseases, as well as of other sexually transmitted diseases. P/NP or letter grading.

50. Stem Cell Biology, Politics, and Ethics: Teasing Apart Issues. (5) Lecture, three and one half hours; discussion, 90 minutes. Developmental biology of various types of human stem cells. Important functional differences between embryonic, hematopoietic, and adult stem cells, as well as differences in their biomedical potential. History of debate surrounding embryos, as well as of various ethical, social, political, and economic aspects of stem cell research. P/NP or letter grading.

60. Biomedical Ethics. (5) Lecture, three hours; discussion, one hour. Examination of importance of ethics in research and exploration of how and why bioethics is relevant to reproductive screening, policy formation, public regulation, and law. Provides foundation to students in areas of ethics of biomedical research. P/NP or 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.

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 under the direction of a faculty mentor 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.

90. Human Stem Cells and Medicine. (5) Lecture, three and one half hours; discussion 90 minutes. Stem cells have potential to revolutionize way medicine is practiced today. Some stem cell therapies are already used successfully to treat thousands of people worldwide. Other stem cell therapies are considered experimental; therefore treatments must be monitored by Food and Drug Administration to ensure safety and efficacy. Some stem cell therapies are offered with minimal scientific justification, relying on hope and hype rather than scientific fact. Exploration of use of stem cells in modern medicine to take close look at science behind some of today’s most famous and infamous stem cell medical applications. 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 mentors. 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 Cell Biology. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, and 23L. Not open for credit to students with credit for Biological Chemistry M140. Analysis of cell organization, structure, and function at molecular level. Cell membranes and organelles, movement, transport, cytoskeleton, and cell movement, intracellular trafficking, cell energetics. Letter grading.

104AL. Research Immersion Laboratory in Developmental Biology. Laboratory, six hours; eight hours. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Course 104AL is requisite to 104BL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Discovery-based research using sea urchin as model system. Students determine expression of unstudied sea urchin genes using combination of molecular biology and computation techniques. May not be repeated for credit. Letter grading.

110L. Integrative Approach to Discovery in Molecular, Cell, and Developmental Biology. (5) Lecture, four hours; laboratory, 14 hours. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, and 107. Discovery-based research experience in molecular, cell, and developmental biology. Working in small research teams, students engage in experiments using primitive model organisms. Emphasis on evaluation of data through rigorous quantification and bioinformatics techniques using several online databases. Use of graphics and software for presentation of figures and illustrations. Through execution of experiments, intrinsic aspects of research, including record keeping, quantification, scientific writing, collaborative efforts, responsibilities, ethics, and ownership. High-quality results may lead to publication in peer-reviewed scientific journals. Letter grading.

104BL. Advanced Research Analysis in Developmental Biology. Laboratory, six hours. Enforced requisite: course 104AL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Investigation of topics primarily covered in 104AL whereby primarily computer software to interpret, expand, or refine databases. Use of graphics software to prepare figures and illustrations. Three hours of data gathering, poster, and final report description. Production of poster or project report required. Letter grading.

120. Introduction to Plant Biology. (4) Lecture, three hours; discussion, two hours. 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 thorough understanding of fundamentals of modern molecular biology both from perspective of theoretical application of 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, transposition, microRNAs, meiosis, 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.

146. Metabolism and Disease. (5) Lecture, three hours; discussion, one hour. Requisites: courses 165A, and Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Contribution of altered cellular metabolism to biology of human diseases including cancer and diabetes. Exploration of (1) major alterations of cellular metabolism in disease, (2) tools and technologies that have detailed characterization of metabolic alterations, (3) therapeutic targeting of metabolic vulnerabilities, and (4) utility of altered cellular metabolism as diagnostic and predictive biomarkers. Letter grading.

195. Plant Communication. (3) 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

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in worlds of symbiosis and community. Plants change atmosphere, enrich soil, and communicate with insects, bacteria, and each other—Earth’s ultimate symbiote. Just as science has revealed over time misconceptions about how things work at deeper level, scientists and communities might recognize that beyond obvious need to grow above-ground biomass for fuel production, we must better understand how to make that biomass in sustainable manner. Introductory course, emphasis on discovery and how natural selection results in gene expression. Employee role on theme of natural compounds in plant/microbe, plant/plant, and plant/herbivore interactions; synopsis of principles of plant cell and tissue culture, and resistance to microbial infections. Concurrently scheduled with course C250. P/NP or letter grading.

150AL. Research Immersion Laboratory in Plant-Microbe Ecology. (4) Laboratory, four hours. Enforced requisite: course C150. Course 150AL is enforced requisite to 150BL. Limited to Molecular, Cell, and Developmental Biology and Microbiology. Immunological and Molecular Genetics methods. Introductory plant biology laboratory to give students hands-on experience doing experiments and making their own observations about plant biology. Letter grading.

150BL. Advanced Research Investigations in Plant-Microbe Ecology. (4 to 6) Lecture, discussion; laboratory, six hours. Enforced requisites: courses C150, 150AL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Analysis and presentation in courses 150AL and 150BL. Experiential research to be primarily computational in nature whereby students use bioinformatics or mathematical modeling software to interpret, expand, or refine data sets. Letter grading. Laboratory to prepare data sets and illustrations for presentations, posters, and reports. Discussion of scientific method, research process, and how science relates to daily lives. Letter grading.


CM156. Human Genetics and Genomics. (5) (Same as Microbiology 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, positional cloning, Mendelian and complex trait genetics, animal models, cyto genetics, pharmacogenetics, population genetics, and genetic counseling. Lectures and readings in literature, with focus on current questions in fields of medical and human health and methodologies appropriate to answer such questions. Concurrently scheduled with course CM256. Letter grading.

162. Genetic Control of Animal Behavior. (5) Lecture, three hours; discussion, one hour. Enforced requisites: Life Sciences 4, two upper-division molecular, cell, and developmental biology or neuroscience courses. How do worms decide whether something smells good or bad? What happens to brain of fruit fly when it is exposed to alcohol? How does fish embryo decide whether to respond to touch by swimming leisurely or rapidly escaping? Behavior of animals, including humans, is controlled by ensembles of neurons that together form functional circuits. Understanding how these circuits function is unifying goal of neurobiology, Physiological techniques have been used in model organisms to discover fundamental mechanisms underlying motivation, learning, and cognitive processes. Letter grading.

165A. Biology of Cells. (5) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14D or 30B, Life Sciences 4 or 107. Not open for credit to students with credit for course 100. Molecular basis of cellular structure and function, with focus on each individual cellular organelle, as well as interaction of cells with extracellular environment and with other cells. Material presented in context of experimental questions and answers to incorporate concept of scientific methodology and recent advances in cell biology research. Exposure in discussions to recent scientific articles that directly relate to information examined in lectures. Letter grading.

165B. Molecular Biology of Cell Nucleus. (5) Lecture, three hours; discussion, two hours. Requisites: course 165A. Continuation of course 165A. Molecular biology of eukaryotic cell nucleus, with focus on structure, organization, replication, and repair of eukaryotic genome; eukaryotic gene expression, including transcription, translation, and transport; cell cycle and cell division; and specialized topics that allow an integrated approach to molecular cell biology. Material presented in context of experimental questions and answers to incorporate concept of scientific methodology and recent advances in cell biology research. Exposure in discussions to recent scientific articles that directly relate to information examined in lectures. Letter grading.

166. Stem Cell Biology. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 150AL. State-of-art education of embryonic and adult stem cells and how these pluripotent/multipotent cells can be used to treat congenital defects, diseases, or injury in human. Development of human and mouse embryonic stem cells and how they develop into various tissue types. Discussion of adult stem cells in hematopoietic, nervous, and other organ systems. Analysis of tissue-specific adult stem cells and their impact in human disease. Examination of various model organisms as examples of how model organisms have helped to discover fundamental approaches to adult biology. How mechanisms in cell and molecular biology and tissue engineering can be applied to use of stem cells in regenerative medicine. Ethical and legal issues related to stem cell research. Letter grading.


172. Genomics and Bioinformatics. (5) Lecture, three hours; discussion, one hour. Requisite: course 144 or 165B or Chemistry 153B or Microbiology 132. Genomics and bioinformatics. Use of computational tools to analyze gene expression and protein sequences and reconstruction of their function relationships, nuclear-cytoplasmic exchange, cell nucleus regulation of cell metabolism. Structure/function relationships, nuclear-cytoplasmic exchange, DNA replication and gene expression. Concurrently scheduled with course C222B. Letter grading.


M175A. 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, Physics 1B or 0 or 5C or 6B. Not open for credit to students with credit for Physiological Science 111A. For Neuroscience and Physiological Science majors, grade of C or better is required to proceed to advanced courses or Physiology 111B. Cellular neurophysiology, membrane potential, action potentials, and synaptic transmission; Sensory systems and motor system; human assemblies of neurons, information and control movement. P/NP or letter grading.

M175B. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course M175A (or Neuroscience M101A or Physiological Science M180A or Psychology M117A; Neuroscience majors letter grade or P). Recommended: Life Sciences 1 and 23L, or Psychology 115, Life Sciences 3 and 4 (may be taken concurrently), or 7C. Molecular biology of channels and receptors: focus on voltage dependent channels and neurotransmitter receptors. Molecular biology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, 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. Requisites: course M175A (or Neuroscience M101A or Physiological Science M180A or Psychology M117A; Neuroscience majors letter grade or P). Recommended: Life Sciences 1 and 23L, or Psychology 115, Life Sciences 3 and 4 (may be taken concurrently), or 7C. Cognitive neuroscience: cognitive approaches to repertoire of molecules in cells. Topics include human and yeast genomes and genotypes and approaches to study function of individual genes, fundamental bioinformatics algorithms used to study relationship between genome and protein sequences and reconstruction of their evolution, use of microarray technologies to measure changes in gene expression, analysis of microarray data including clustering and promoter analysis, protooncogenes including protein expression and interactions, epigenomic study of DNA methylation and chromatin modification, and systems biology, or computational approaches to integrating varied genomic data to gain more complete understanding of cellular biology. Letter grading.

C174A. Advanced Topics in Cell and Molecular Biology: Molecular Evolution. (2) Lecture, two hours. Requisite: course CM156 or 165A or 144, Life Sciences 4 or 107. Recent developments in fields of molecular, cell, and developmental biology. Current developments in field of molecular evolution. Constructing evolutionary trees and applying of this method of constructing these trees, as well as evolutionary hypotheses using sequencing data. Concurrently scheduled with course C222A. Letter grading.

C174D. Advanced Topics in Cell and Molecular Biology: Molecular Biology of Cell Nucleus. (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. Material presented in context of experimental questions and answers to incorporate concept of scientific methodology and recent advances in cell biology research. Exposure in discussions to recent scientific articles that directly relate to information examined in lectures. Letter grading.

M181. Biological Bases of Psychiatric Disorders. (4) (Same as Neuroscience M130, Physiological Science M181, Psychiatry M181, and Psychology M117J.) Lecture, three hours. Requisite: course...
contribute to disorders and rationales for pharmaco- therapy. Basic understanding of brain dysfunctions that arise from the systems involved in psychiatric symptoms and neurodevelopmental disorders forms the basis for in-depth studies.

Advanced courses delve into specific topics in greater depth through supplemental readings, papers, or projects.聯合進行guided research supervised by a faculty mentor to finalize course syllabus. Individual contract required. May be repeated for credit.

198C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor. Credit allowed with consent of Departmental Undergraduate Research Committee.

199A-199D. Directed Research in Molecular, Cell, and Developmental Biology. (4 each) Tutorial, 12 hours. Preparation: submission of written proposal to developmental biology. Letter grading. Students may elect to enroll in additional research courses beyond the minimum commitment.

Graduate Courses

C222A. Advanced Topics in Cell and Molecular Biology: Molecular Evolution. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in molecular, cellular, and developmental biology. Must be taken in conjunction with course 198A, following completion of course 196B. Letter grading.

C222B. Advanced Topics in Cell and Molecular Biology: Molecular Medicine. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in molecular, cellular, and developmental biology. Must be taken in conjunction with course 198A, following completion of course 196B. Letter grading.

C222C. Advanced Topics in Cell and Molecular Biology: Development and Complex Systems. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in molecular, cellular, and developmental biology. Must be taken in conjunction with course 198A, following completion of course 196B. Letter grading.

C222D. Advanced Topics in Cell and Molecular Biology: Systems Biology. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in molecular, cellular, and developmental biology. Must be taken in conjunction with course 198A, following completion of course 196B. Letter grading.

C222E. Advanced Topics in Cell and Molecular Biology: Evolutionary Developmental Biology. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in molecular, cellular, and developmental biology. Must be taken in conjunction with course 198A, following completion of course 196B. Letter grading.

C222F. Advanced Topics in Cell and Molecular Biology: Computational Biology. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in molecular, cellular, and developmental biology. Must be taken in conjunction with course 198A, following completion of course 196B. Letter grading.

C222G. Advanced Topics in Cell and Molecular Biology: Stem Cells and Regeneration. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in molecular, cellular, and developmental biology. Must be taken in conjunction with course 198A, following completion of course 196B. Letter grading.

C222H. Advanced Topics in Cell and Molecular Biology: Epigenetics. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in molecular, cellular, and developmental biology. Must be taken in conjunction with course 198A, following completion of course 196B. Letter grading.

C222I. Advanced Topics in Cell and Molecular Biology: Neurobiology. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in molecular, cellular, and developmental biology. Must be taken in conjunction with course 198A, following completion of course 196B. Letter grading.
Molecular, Cellular, and Integrative Physiology

Interdepartmental Program
College of Letters and Science
and David Geffen School of Medicine

Molecular, Cellular, and Integrative Physiology
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James G. Tidball, PhD (Integrative Biology and Physiology, Pathology and Laboratory Medicine)
Ybin Wang, PhD (Anesthesiology and Perioperative Medicine, Physiology)
Xia Yang, PhD (Integrative Biology and Physiology)

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 processes, and provide 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 90 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.

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 (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 R01, 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 molecular basis 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. Requires: 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.


252B. Seminar: Molecular Mechanisms of Human Diseases II. (2 Formerly numbered M252B) Seminar, two hours. Corequisite: course 252A. Reading, review, and discussion of primary research literature addressing conceptual development and methodologies in modern biology, with particular emphasis on implications and relevance to human diseases of topics presented in course 252A. Letter grading.

252A. Molecular Mechanisms of Human Diseases II. (4 Formerly numbered M262A) Lecture, four hours. Preparation: prior satisfactory molecular biology coursework. Corequisite: course 262A. Foundation of fundamental concepts and methodologies in modern biology, with emphasis on implications and relevance to human disease and integration of biology with mechanisms underlying disease development and applications in therapy as they apply to neurological, cardiovascular, and metabolic diseases. Letter grading.

262B. Seminar: Molecular Mechanisms of Human Diseases II. (2 Formerly numbered M262B) Seminar, two hours. Corequisite: course 262A. Reading, review, and discussion of primary research literature addressing fundamental concepts and methodologies in modern biology, with particular emphasis on implications and relevance to diseases of topics presented in course 262A. Letter grading.


280A. Biophysics; 280B. Cellular and Molecular Physiology; 280C. Biophysics; 290A, Integrative and Comparative Physiology.

296. Research Seminar. (2 Seminar, to be arranged. Review of literature, discussion of original research, analysis of current trends 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 re-
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 toxic 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.

Molecular Toxicology

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Michael D. Collins, PhD (Environmental Health Sciences)
Oliver Hankinson, PhD (Pathology and Laboratory Medicine)
Shaily Mahendra, PhD (Civil and Environmental Engineering)
Robert H. Schiestl, PhD (Environmental Health Sciences, Pathology and Laboratory Medicine, Radiation Oncology)

Scope and Objectives

Faculty from 15 departments and 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.

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 minimum of 12 units (excluding this course), Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M110A. Drugs: Mechanisms, Uses, and Misuse. (4) (Same as Pharmacology M110A) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: Life Sciences 2, 3. Introduction to pharmacology and toxicology for undergraduate students, emphasizing drug development and mechanisms of action of drugs and toxic agents. Letter grading.

187. 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. In 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/mutagenesis, 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.

599. Research for PhD Dissertation. (8 to 12) Tutorial, to be arranged. May not be applied toward PhD course requirements. May be repeated for credit. S/U or letter grading.

596. Directed Individual Study or Research. (2 to 10) Tutorial, to be arranged. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

Music

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Music
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Travis J. Cross, DM, Chair

Faculty Roster

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Terence O. Blanchard (Kenny Burrell Professor of Jazz Studies)
Kenneth E. Burrell, BA
Lily Chen-Hatteck, PhD
Che-Yen Chen, MM
Vladimir Chernov, MM
Travis J. Cross, DM
Richard D. Danielpour, DMA
Michael E. Dean, MM
Inna Faliks, DMA
Adjunct Professors
Christoph Bull, DMA
Gloria C. Cheng, DMA
Don E. Fransen, JD
Herbert J. Hancock, DFA
Christopher Hanulik, BM
Douglas H. Masek, DMA
Wayne Shorter, BME
S. Daniel Szabo, DMA
Peter F. Yates, 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 inter-departmental 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 areas in music after students graduate.

The department offers four-year bachelors’ degrees in music composition, music education, and music. The curriculum for all three 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 three 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 teaching 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
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 an audience in performance

Admission
For new and change-of-major applicants, students in the performance concentration are required to audition in their principal performing medium with members of the performance faculty. Admission to the theory concentration is open only to junior/senior Music majors on the basis of an interview with the theory/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 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 C185H and C186A through C186C), as assigned by the chair or designated faculty member. Voice students are also required to complete courses 74A, 74B, and 74C (6 units). In addition, students are required to take 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: Music 120A, 120B, 120C, 140A, 140B, 140C, with grades of C or better, and courses selected from one of the concentrations listed below.

Performance: Twelve units in performance instruction from Music 160A through 161A (including junior and senior recital requirements, courses 167A through 168), 4 units of chamber ensembles (course C175) for instrumental performance students, 4 units of course C158 for vocal performance stu-
students, and 8 elective units selected from any upper-
division ethnomusicology, music, or musicology
courses. During each term in which students take
private lessons, they must participate in a perfor-
mance organization for a letter grade, utilizing their
major instruments (courses C185A through 185H
and C186A through C186C, as assigned by the chair
or designated faculty member.
Theory: Six 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 vo-
cal, 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 contempo-
rary practice
• Demonstrated fundamentals of conducting an
ensemble, including basic patterns and gestural
principles, scores analysis skills, and rehearsal
practices
• Composition of at least one substantial piece of
music and presentation of it in a concert setting,
such as a senior recital

Admission
For new and change-of-major applicants, students
must submit a portfolio of compositions prior to the
required audition and interview with the composi-
tion 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
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 place-
ment in the appropriate music theory sequence.
Required: (1) musicianship—Music M6A, M6B, M6C,
with grades of C— or better; (2) theory—Music 20A,
20B, 20C, with grades of C or better; (3) instrumen-
tal studio—12 units from Music 60A through 60Li 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 desig-
nated faculty member; and (6) language—one col-
lege 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—Musicology 125A
or 125B, 125C, with grades of C or better; (3) advanced
composition studio—10 units of Music 166; (4) ad-
vanced composition concepts and techniques—
Music 104A or 104B, 106A, 106B, 116, 124A or 124B
or 124C, 1276; (5) electives—at least 4 units selected
from all upper-division ethnomusicology, global
jazz studies, music, music industry, or musicology
courses; (6) capstone composition recital—Music
169. In senior year, each student must present a se-
ior recital as part of the capstone course to be pre-
ceded by a scoring course (Music 124A or 124B
or 124C); the 30-minute recital includes a printed pro-
gram with notes. All recitals are videotaped and ar-
chived. Performances are evaluated by a jury.

Music Education BA
Capstone Major
Learning Outcomes
The Music Education major has the following learn-
ing 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 popular musical genres
• Development of pedagogical skills, assessment
strategies, and musical leadership abilities in
classroom, instrumental, and choral settings
• Demonstrated basic skills in secondary perfor-
man ce 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
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 place-
ment in the appropriate music theory sequence.
Required: (1) musicianship—Music M6A, M6B, M6C,
with grades of C— or better; (2) theory—Music 20A,
20B, 20C, with grades of C or better; (3) instrumen-
tal or vocal studio—12 units from Music 60A through 60Li 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 desig-
nated faculty member; and (6) language—one col-
lege 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—Musicology 125A
or 125B, 125C, with grades of C or better; (3) advanced
composition studio—10 units of Music 166; (4) ad-
vanced composition concepts and techniques—
Music 104A or 104B, 106A, 106B, 116, 124A or 124B
or 124C, 1276; (5) electives—at least 4 units selected
from all upper-division ethnomusicology, global
jazz studies, music, music industry, or musicology
courses; (6) capstone composition recital—Music
169. In senior year, each student must present a se-
ior recital as part of the capstone course to be pre-
ceded by a scoring course (Music 124A or 124B
or 124C); the 30-minute recital includes a printed pro-
gram with notes. All recitals are videotaped and ar-
chived. 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 (MA), 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.
MGA-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-reading, 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. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Acquisition of listening skills through direct interaction with live performance, performance, and composers. Reflection of listening to theoretical, analytical, historical, and cultural frameworks. Music as aesthetic experience and cultural practice. P/NP or letter grading.

16. Hollywood Musical and American Dream. (4) Lecture, three hours; outside study, one hour; examination of composers, writers, and filmmakers whose creative efforts changed how world came to view American dream. Full features and music clips illustrate American life as seen through Hollywood musicals. 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 and explore and demonstrate many paths of discovery at UCLA. P/NP grading.

20A. Music Theory I. (3) Lecture, four hours. Preparations; passing score on departmental examination. Course 20A is enforced requisite to 20B, which 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 ii-V-I modulation 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) (Formerly numbered 95FP) Lecture, four hours; outside preparation and practice, two hours. Limited to Ethnomusicology, Music, and Musicology majors. Introduction to principles of Alexander technique. Study of musician's postural attitude and the meaning of physical movement as application of theory. Designed to help instrumentalists and vocalists prevent injuries and performance anxiety. May be repeated with consent of instructor. P/NP or letter grading.

60A-60U. Instrumental Studio. (2 each) Studio, one hour; outside practice, six to eight hours. Limited to freshman/sophomore Music Performance majors and junior Music Education and Music Composition majors. Students must perform in one practicum during academic 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 12 units. P/NP or letter grading.

61A. Voice Studio. (2) Enforced requisite course 61B. Studio, one hour; outside practice, six to eight hours. Corequisite: course 61B or 61C. 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 for fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 12 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 Education majors specializing 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 for fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 8 units. P/NP or letter grading.

61C. Voice Coaching for Music Education Students. (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 for fall and winter quarters 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; three or four concert performances outside study, five hours. Enforced requisites: courses 20A, 20B, 20C. Limited to Music Composition students and designed for sophomores. One-on-one composition lessons will assign topics tailored to student progress and level of achievement. Lessons address counterpoint, voice-leading, harmonic and melodic construction, orchestration, form, texture, style, notation, and performance feasibility. P/NP or letter grading.

74A-74B-74C. Introduction to Singing Diction. (2–2–2) Studio/ demonstration/performance, 90 minutes; outside study, four to five hours. Course 74A is enforced requisite to 74B, which is enforced requisite to 74C. 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, recitativo, and folk songs. Transcription, translation, speaking, and singing of texts from pieces assigned in course, as well as from repertoire being prepared for major performance. Instructors: Itzhak Pichet Lizor, Romanee and Italian. Introduction to basics of singing diction and development of English and Italian skills for beginning students. 74B. German. Limited to one-on-one vocal repertoire. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

74A-74B-74C. 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, recitativo, and folk songs. Transcription, translation, speaking, and singing of texts from pieces assigned in course, as well as from repertoire being prepared for major performance. Instructors: Itzhak Pichet Lizor, Romanee and Italian. Introduction to basics of singing diction and development of English and Italian skills for beginning students. 74B. German. Limited to one-on-one vocal repertoire. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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 to keyboard: sight-reading, to-
gave musical literacy and notion of social contract that forms basis of musical notation. Drawing from American music folk game traditions, highlights complex history of this country and way in which entire body is used as resource when instruments are unavailable, such as reeds. May be repeated for credit. Concurrently scheduled with course C209A. P/NP or letter grading.

C109A. Oboe Reed Making. (Activity, one hour; outside study, two to three hours. Enrolment by consent of instructor. Lecture, three hours.) Introduction and overview of oboe reed making, including hands on training with tools and techniques necessary to develop and maintain oboe reeds. May be repeated for credit. May be concurrently scheduled with course C209A. P/NP or letter grading.

110B. Bassoon Reed Making. (Activity, one hour; outside study, two to three hours. Enrolment by consent of instructor. Lecture, three hours.) Introduction, overview, and hands-on training with tools and techniques necessary to develop and maintain bassoon reeds. May be repeated for credit. May be concurrently scheduled with course C209A. P/NP or letter grading.

110A. Learning Approaches in Music Education. (Lecture, two hours; activity, two hours; outside study, eight hours. Enrolment by consent of instructor. Lecture, three hours.) Introduction and overview of oboe reed making, including hands on training with tools and techniques necessary to develop and maintain oboe reeds. May be repeated for credit. May be concurrently scheduled with course C209A. P/NP or letter grading.

111. Vocal Techniques for Music Education. (Lecture, three hours. Requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. Preparation of music education students for teaching music at preschool and elementary school levels. Development of understanding of developmental characteristics, diverse cultures, 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 who become proficient 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. (Lecture, two hours; activity, one hour; field work, one hour; outside study, eight hours. Requisites: courses 20A, 20B, 20C, 110A, 110B, 120A, 120B, 120C. Preparation of students for teaching choral music at middle and high school levels. Development of understanding of developmental characteristics, diverse cultures, and learning needs of adolescents and design of effective instructional strategies that are age-appropriate and responsive to students' background. Diverse practices and learning processes in choral music of American and world serve as basis of comparative study, with emphasis on comprehensive music education through performance. Frequent field visits. Letter grading.)

110D. Comparative Study of Instrumental Music Education. (Lecture, two hours; activity, one hour;在外面 study, eight hours. Requisites: courses 20A, 20B, 20C, 110A, 120A, 120B, 120C. Critical study and analysis of philosophy, history, organization, curriculum, and literature of music programs for elementary and secondary instrumental music instruction in traditional and nontraditional settings. Development of strategies and techniques to teach music in group settings. Completion of capstone project in form of program demonstrating mastery of programs learning outcomes. Frequent field visits. Letter grading.)

112. Guided Field Experiences in Music Education. (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 participating public school instructor to develop and deliver instruction in K-12 settings. P/NP grading.)

114A-114B. Study of Instrumental Techniques. (I-1 Studio, three hours. Requisites: course corequisite: course 20A. Applied studies in basic performance techniques and tutorial mastery may be repeated for credit. Letter grading. 114A. High Strings. 114B. Low Strings.)

114C-114D. Vocal Techniques for Music Education I, II. (Studio, two hours; outside study, one hour; lecture, one hour. Requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. Preparation of music education students for teaching music at preschool and elementary school levels. Development of understanding of developmental characteristics, diverse cultures, 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 who become proficient with music learning environment that is conducive to optimal growth in their musicality and creativity. Frequent field visits. Letter grading.)
C150. Keyboard Skills for Pianists. (2) Activity, two hours; outside study, four hours. Offered with focus on technical skills for piano performance. Grades are assigned by instructor. May be repeated for maximum of 3 units. P/NP or letter grading.

C155. Instrumental and Piano Duo Repertoire. (2) Activity, two hours; outside study, four hours. Performance-based course that develops repertoire and experience in collaborative performance for pianists and instrumentalists. Activities include weekly preparation, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, auditions, and other related activities. Regular coaching and weekly performance workshop, and rehearsals. Concurrently scheduled with course C455. P/NP or letter grading.

C158A-C158G. Advanced Vocal Repertoire, Diction, and Interpretation. (2) Activity, two hours; outside study, four hours. Required: course C140B. Activity, one to two hours. Preparation: audition. Students must be at advanced level of their instrument to participate. Advanced study of performance practices of repertoire appropriate to ensembles. Total of 12 units may be applied toward degree requirements for music performance majors. Concurrently scheduled with courses C488A-C485G. P/NP or letter grading.

C186A. Piano/Keyboard Accompanying. (2) Formerly numbered C90Q. 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.

C186B. Guitar Accompanying. (2) Formerly numbered 905B. 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 906B. 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.

188. 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.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial and lab, one hour; lecture course instructor, 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. 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 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 upper-division courses in music and/or business. Students meet on regular basis with supervising instructor to discuss selected seminar topic, conduct preparatory research, and begin preparation of syllabus. May be repeated for credit. Letter grading.

195. Community or Corporate Internships in Music. (2 to 4) P/NP or letter grades. Limited to junior/senior students. Internship in supervised setting in community agency or business. Students meet on regular basis with supervising instructor and submit periodic reports of their work. May be repeated for a 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 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.

Graduate Courses

M201. Repertory and Analysis. (2) Same as Musicology 201A. Preparation: requisite corequisite, Musicology 200A. Exploration of selected repertory through readings and analysis. Specific topics vary. May be repeated for credit. S/U grading.

202. Analysis for Performers. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Survey of analytical techniques and approaches for use by professional musicians, including phrase structure, harmonic rhythm and prolongation, small and large forms, theories of musical coherence, and understanding of styles. Letter grading.


204. Music Bibliography for Performers. (4) Lecture, three hours; outside study, nine hours. Designed for graduate music performance students. Survey of general bibliographic techniques in music, with emphasis on materials for performing musicians. Letter grading.

C209A. Oboe Reed Making. (1) Activity, one hour; outside study, two hours. Enrollment by consent of instructor. Introduction and overview of oboe reed making, including hands-on training with tools and techniques necessary to develop and maintain oboe reeds. May be repeated for credit. May be concurrently scheduled with course C109A. S/U or letter grading.

C209B. 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 tools and techniques necessary to develop and maintain bassoon reeds. May be repeated for credit. May be concurrently scheduled with course C109B. S/U or letter grading.

C218A. Advanced Choral Conducting. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117. Conducting basics, baton technique, choral warm-ups, dynamics, score preparation and analysis. May be repeated once for credit. Concurrently scheduled with course C118A. Letter grading.

C218B. Choral Techniques and Methods. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117, C218A. Vocal and choral pedagogy, vocalizing and warm-up techniques, diction, and rehearsal and audition techniques. May be repeated once for credit. Concurrently scheduled with course C118B. Letter grading.


256. Advanced Music Analysis: Post-Tonal Music. (4) Seminar, three hours. Designed to provide graduate students with an intensive study of the historical and theoretical study of music in the post-tonal period. May be repeated for credit. S/U grading.

C257. Seminar: Special Topics in Composition and Theory. (4) Seminar, three hours. Intensive exploration of specialized aspects of composition. May be repeated for credit. S/U or letter grading.

258. Advanced Music Analysis: Pre-Tonal Music. (4) Seminar, three hours. Designed to provide graduate students with an intensive study of the historical and theoretical study of music in the pre-tonal period. May be repeated for credit. S/U 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 and use of surrealistic effects when scoring to achieve, as in MTV, dream sequences, and montages. Study of three principal areas of film making—production, production (shooting), and post-production. Examples from classic movies 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 one entire score for television episode or original 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 composition for orchestra; students design and score pieces required to approximate actual conditions of completing professional Hollywood assignment, from spotting to scoring. Letter grading.

261A-261J. Problems in Performance Practices. (4 each) Seminar, three hours; laboratory, one hour. Limited to graduate performance students. Investigation of primary source readings in performance practices as related to period; analytical reports and practical applications in class demonstrations. May be repeated for credit. Letter grading. 261A. Medieval. 261B. Renaissance; 261C. Baroque; 261D. Classical; 261E. Romantic; 261F. Contemporary; 261J. Jazz.

266. Graduate Composition Studio. (4) Studio, one hour arranged with instructor; outside study, 11 hours. Limited to graduate composition students. One-on-one composition lessons, with assignments and compositions tailored to each student’s progress and level of achievement, addressing complex, voice-leading, harmonic and melodic construction, orchestration, form, texture, style, notation, and performance feasibility of compositions. Concurrent with advanced level. Presentation of at least one composition composed during course in graduate composition concert during academic year. May be repeated for credit without limitation. S/U grading.

C271. Selected Topics in Keyboard Literature. (2) Formerly numbered C267. Lecture, two hours. Enforced corequisite: course 460S or 460T or 460U. In-depth study of selected topics in keyboard literature, concentrating on problems of performance through analysis, historical and comparative studies, and actual performances by participants. May be concurrently scheduled with course C171. S/U or letter grading.
270A-270G. Seminars: Music Education. (6 each) Seminar, three hours. May be repeated for credit without limitation. S/U or letter grading. 270A. History. 270B. Non-Western Musics: 270C. Curriculum Innovations. 270D. Tests and Measurements; 270E. Orchestral Repertoire; 270F. Instrumental Literature; 270G. General Topics. 270H. Musicology and Music Education. (CM288 and Musicology CM288.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to the departments of musicology, 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.

270. Composition Forum. (2) Seminar, two hours. Weekly forum to present professional composers of range of mediums, including large ensemble vocal and/or instrumental works, chamber music, electronic music, and film/television as guest lecturers. Letter grading.

270. Seminar: Special Topics in Music. (4) Seminar, three hours. Exploration of topics in music through variety of approaches that may include projects, performances, readings, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. S/U or letter grading.

330. Introduction to Orff Schulwerk. (2) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Intended for students who wish to become qualified classroom teachers, and music therapists who have had little or no previous experience with Orff Schulwerk. Introduction to Orff Schulwerk, including history, philosophy, and teaching processes. Focus this approach to music instruction for children. Offered in summer only, S/U or letter grading.

331A–331B–331C. Orff Schulwerk Training Courses. (4-4-4) Formerly numbered 331A-331B-331C. Lecture, four hours; discussion, one hour. Requisite: course 331A. 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. Students who successfully complete each course are eligible for certification at that level through American Orff Schulwerk Association. S/U or letter grading.

331A. Level I (Beginning); 331B. Level II (Intermediate); 331C. Level III (Advanced).

341. Conducting for High School and College Band/Wind Ensemble Teachers. (2) Formerly numbered S341.) Lecture, two and one half hours. Comprehensive view of current trends in band/wind ensemble programs, including nonverbal communication, conducting techniques. Study of new and recently published literature and discussions of administration of band/wind ensemble programs. May be repeated for credit without limitation. S/U or letter grading.

350. 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 practical techniques for solving real challenges in choral connected, hands-on experience. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

350B. Exploration of MIDI Computer Resources: Keyboards and Synthesizers. (2) Lecture, two hours; laboratory, three hours. Creative use of MIDI-based synthesizers under computer control. Exploration of available hardware resources allied with various software sequencing packages. Use of software for computer-based music printing, Hands-on experience. May be repeated for credit with different emphasis. Offered in summer only. S/U or letter grading.

371. Marching Band in Secondary Education. (2) Lecture, two hours. Study of contemporary marching band as component of music curriculum in secondary education, including techniques, practices, and problems associated with marching bands, as well as historical perspective. 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.

401. New Music Forum. (2) Tutorial/laboratory, two hours. Preparation: one year of graduate study in music at UCLA. Interactive course in preparation and performance of premiere work especially composed for graduate performer or performers by graduate composer at UCLA. Letter grading.

450. Keyboard Skills for Pianists. (2) Activity, two hours; outside study, four hours. Applied music course with focus on repertoire and improving performance. Areas include sight playing, score reading, transposition, figured bass, harmonization, improvisation, score reduction, and ensemble issues. Concurrently scheduled with course C150. S/U or letter grading.

455. Instrumental and Piano Duo Repertoire. (2) Activity, two hours; outside study, four hours. Performance-based course that develops repertoire and experience in collaborative performance for pianists and instrumentalists. Activities include weekly score preparation, weekly rehearsals, regular coaching, and performance for lessons, juries, recitals, master classes, auditions, and other related activities. Regular coaching with faculty members, weekly performance workshop, and rehearsals. Concurrently scheduled with course C155. Letter grading.

458A-458G. Advanced Vocal Repertoire, Diction, and Interpretation. Two Hours; outside study, four hours. Performance-based course that develops repertoire and experience in collaborative performance for pianists and vocalists. Activities include text and score preparation, diction, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, auditions, and other related activities. Intensive diction study incorporated. Regular coaching with faculty members, weekly performance class, and rehearsals. May be repeated for maximum of 8 units. Concurrently scheduled with course C158A-C158G. S/U or letter grading.

460A-460V. Graduate Instrumental Studio. (6 each) Studio, one hour; performance laboratory/outside study, 17 hours. Limited to graduate performance students. Individual instruction. Intensive study and preparation of musical literature in area of specialization. May be repeated for credit. Letter grading.

461B. Graduate Voice Coaching. (1) Studio, one hour; outside study, three hours. Corequisite: course 461A. Limited to graduate voice students. 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. Letter grading.

466. Graduate Instruction in Performance: Jazz. (6) Studio, one hour; performance laboratory/outside study, 17 hours. Limited to graduate performance students. Individual instruction. Intensive study and preparation of musical literature in area of specialization. May be repeated for credit. Letter grading.

469. Instrumental Pedagogy. (4) Lecture, three hours; outside study and preparation, nine hours. Preparation: advanced proficiency on one musical instrument. Limited to graduate music students. Study of art of teaching musical instruments, including discussions of philosophy of teaching, learning process, pedagogy, and techniques. In- dividualized study of various considerations, such as physical/technical aspects and pedagogical repertoire, peculiar to teaching student’s primary instrument. Must have completed required core courses. Letter grading.

471. Vocal Pedagogy. (4) Lecture, three hours; discussion, one hour. Preparation: advanced proficiency in voice. Designed for graduate music students. Study of teaching techniques for voice, including thorough investigation of vocal mechanism and its use, plus study of noted teachers of past and present. Further emphasis on practical teaching experience in class. Letter grading.

472. Master Class in Opera. (6) Studio, three hours; outside study, 15 hours. Limited to graduate performance students. Intensive study and preparation of opera literature. 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 C480G. Activity, four hours. Preparation: audition. Large mixed ensemble performing choral music of all periods appropriate for college level. May be repeated for credit without limitation. May be concurrently scheduled with course C185A. S/U or letter grading.
C480B. Chamber Singers. (2) Activity, four hours. Preparation: audition. Select mixed ensemble performing chamber choral music of all periods. May be repeated for credit without limitation. May be concurrently scheduled with course C185B. S/U or letter grading.

C480C. 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. May be repeated for credit without limitation. May be concurrently scheduled with course C185C. S/U or letter grading.

C480D. Symphony Orchestra. (2) (Formerly numbered C481.) Activity, four to five hours. Preparation: audition. Group performance of symphonic orchestral literature. May be repeated for credit without limitation. May be concurrently scheduled with course C185D. S/U or letter grading.

C480E. 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 within the same term. May be concurrently scheduled with course C185E. S/U or letter grading.

C480G. Wind Ensemble. (2) (Formerly numbered C482.) 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 credit without limitation. May be concurrently scheduled with course C185G. S/U or letter grading.

C484A. Piano/Keyboard Accompanying. (2) (Formerly numbered C484A.) 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 credit without limitation. May be concurrently scheduled with course C185A. S/U or letter grading.

C484B. Guitar Accompanying. (2) 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. May be concurrently scheduled with course C185B. S/U or letter grading.

C484C. Harp Accompanying. (2) 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. May be concurrently scheduled with course C185C. S/U or letter grading.

C485A-C485G. Chamber Ensembles. (1 each) Activity, one to two hours. Preparation: audition. Students must be at advanced level of their instrument to participate. Selected study of performance practices of literature appropriate to ensembles. Total of 12 units may be applied toward degree requirements for music performance students. May be concurrently scheduled with courses C175A-C175G. S/U or letter grading.


495. Introductory Practicum for Teaching Apprentices in Music. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Music 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. Technology Seminar. (2) Seminar, two hours; laboratory, one hour; outside study, three hours. Introduction to departmental and campuswide technology resources, exploration of applications of technology in education, and development of means of using technology to assess and document teaching competence. S/U grading.


596A. Directed Individual Studies in Orchestration and Composition. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

596C. Directed Individual Studies in Music Education. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

596D. Directed Individual Studies in Performance Practices. (2 to 12) Tutorial, to be arranged. Only 4 units may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

597. Preparation for Master's Comprehensive Examination or PhD Qualifying Examinations. (2 or 4) Tutorial, to be arranged. S/U grading.

598. Guidance of MA Thesis. (4, 8, or 12) Tutorial, to be arranged. Only 4 units may be applied toward degree requirements. May be repeated for credit. S/U or letter grading.

599. Guidance of PhD or DMA Dissertation. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

MUSIC INDUSTRY
Interdisciplinary Minor
Herb Alpert School of Music
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Los Angeles, CA 90095-1616

Music Industry
310-825-4768
E-mail contact
Robert W. Fink, PhD, Chair

Faculty Committee

Faculty Committee
Lily Chen-Hafteck, PhD (Musicology)
Nina S. Eidsheim, PhD (Musicology)
Robert W. Fink, PhD (Musicology)
Juliana K. Gondek, MM (Musicology)
Steven J. Loza, PhD (Ethnomusicology)
James W. Newton, BM (Ethnomusicology)

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 91Z, Music M907, 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, Musicology 128, M137, 140, 164, 165, 177, 185, Music Industry 29, 55, 95, 102 through 181, 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.

In addition, students who are not enrolled in a major within the Herb Alpert School of Music must demonstrate basic music literacy by passing the Music Industry minor’s Music Literacy Assessment, completing Music 3 with a minimum grade of C+, or completing an equivalent course in consultation with the minor chair. More information about the Music Literacy Assessment and sample assessments can be accessed through the Music Industry student affairs officer in the school Office of Student Services and Enrollment Management.

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 diploma.
Music Industry

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 who are invited to illuminate and map 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. Close analytical look at popular music documentaries and goals, methods, and challenges of making them. Almost all audio-visual material produced by music industry (whether distributed in theater, on television, or on websites) or through social media media) aims to bring attention to music that artists make. General introduction to theory and practice of visual storytelling. Primary focus on screening and discussion of documentaries leading to development of culminating written project. Use of first quarter century of rock era (circa 1955–1980) as representative sample, but includes contemporary artists. P/NP or letter grading.

55. Songwriters on Songwriting. (4) (Formerly numbered 105.) Lecture, three hours; discussion, one hour. With special focus on songwriting renaissance of rock era, examination of work of important songwriters of post-War era. Students will record original songs and take part in peer critique and discussion of their work. 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 an introduction 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 lower-division students who have completed 90 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. Research Project Program. (1 to 2) (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. Seminar in Music Industry. (4 Seminar, four hours; outside study, eight hours. Required of Music Industry majors. Introduction to intellectual and theoretical frameworks that form Music Industry minor and that scholars of music and music industries have developed to analyze, understand, and perhaps judge what happens in the Los Angeles area and to bring attention to music that artists make. General introduction to theory and practice of visual storytelling. Primary focus on screening and discussion of documentaries leading to development of culminating written project. Use of first quarter century of rock era (circa 1955–1980) as representative sample, but includes contemporary artists. P/NP or letter grading.

102. Music Industry Fundamentals. (4 Seminar, three hours; outside study, nine hours. Introduction to basic economics of creative industries, focusing on unique challenges faced in U.S. and abroad, how power has shifted but still held in miscalculations, and where career opportunities for musicians and other industry professionals will be in next five to 10 years. Use of first quarter century of rock era (circa 1955–1980) as representative sample, but includes contemporary artists. P/NP or letter grading.

103. Music and Brain. (4) (Same as Neuroscience M170.) Seminar, three hours; outside study, nine hours. Multidisciplinary approach to understanding 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 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 disciplines of neuroscience; introduction to fundamental principles in neurophysiology, psychopharmacology, and the basic brain 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.

104A. Music and Law. (4 Seminar, three hours; outside study, nine hours. Fundamentals of American law as it applies to entertainment business, with special attention to music in the context of television, and new media. Legal relationships in entertainment business and basic business practices. Exploration of legal aspects of producing a recording or other work in entertainment business. Rights and taxes are tailed through production and distribution. Letter grading.

104B. Legal and Business Aspects of Sound Recordings. (4 Seminar, three hours; outside study, nine hours. Introduction to role of music supervisor and creator in production and distribution of sound recordings. More detailed practical focus on legal aspects of recording process itself, from initial assembly of material to final distribution and collection of royalties. Focus on issues of sound recording technology and method. Letter grading.

105. Audio Technology for Musicians I. (4) Studio, four hours; outside study, eight hours. Introduction to basic acoustic principles, recording techniques, and working procedures for equipment used in contemporary music production, including microphones, mixers, recorders, synthesizers, and sequencers. Basic sound production operations (equalization, compression, distortion, reverberation). Operating principles of most popular systems of music production software and hardware. Letter grading.

107A. Audio Technology for Musicians II. (4) Studio, four hours; outside study, eight hours. Enforced requisites: course 107A. Examination of selected technological elements in greater depth than in course 107A, while applying established concepts to broad range of 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, musicology, mastering, and recording. Development of critical listening skills through in-class and assigned listening. Letter grading.

108. Founding and Sustaining Performing Arts Organizations. (4) Seminar, four hours; outside study, eight hours. Examination of process of founding performing arts organizations, beginning with inspiration to do so, clarifying organization mission, and mechanisms of becoming nonprofit corporation; issues of board of directors, finding appropriate venues, developing audience; mechanics, legal and routine, of running arts businesses; establishing relationships with other organizations in field; issues of making and distributing recordings. Students create on paper one performing arts organization, including developing mission statement, preparing bylaws, and writing sample grant proposals. Letter grading.


111A. Rock/Pop Studio Ensemble. (4) Studio, four hours; outside study, four hours. Performance-based introduction to popular music styles, forms, and competencies through immersion in studio performance techniques. Students, play in groups to develop ensemble, 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. Enforced requisites: courses 107A and 104B. Introduction to contemporary songwriting practices for intermediate to advanced songwriters. Emphasis on collaboration, flexibility, and working within teams to master specific songwriting challenges. All genres and styles of music accommodated. Letter grading.

112B. Songwriter’s Workshop. (4 Seminar, four hours; outside study, eight hours. Enforced requisites: courses 107A and 104B. Apprenticeship in Music Industry. Workshop in contemporary songwriting practices for intermediate to advanced songwriters. Emphasis on collaboration, flexibility, and working within teams to master specific songwriting challenges. All genres and styles of music accommodated. Letter grading.

113. Music Supervision. (4 Seminar, three hours. Introduction to role of music supervisor and creator in production and distribution of sound recording. Letter grading.

114. 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, arrangement, and application of technology. Letter grading.

115. Internet Marketing and Branding for Musicians. (4) Formerly numbered 102.) Seminar, four hours; outside study, eight hours. Enforced requisites: courses 101, 102, 104A, or by permission of instructor. Study driven by project-based work of current online environment for musicians, organizations, and venues. Students dive into best practices of digital marketing around world, growing brand, finding target market online, and engaging with right communities of practice to build their own connections and online portfolio of contributors. Letter grading.

124. Music Industry Entrepreneurship. (4 Seminar, four hours. Principles of entrepreneurship and fundamental business strategies approached through case studies and project-based group assignments. Students develop business plans, pitch them, and build out infrastructure for startups that focus on technology and innovation in music industry. Students are encouraged to make use of resources at MusicBiz, MusicEra, and startup.ucla.edu.

131. DIY Punk as Organizational Practice. (4) Seminar, three hours. Recommended requisite or corequisite: Musicology 13. Do it yourself (DIY) as practical alternative of organizing for social justice activism. Nonprofit arts organizations and their issues in capitalism, labor issues, politics. How to work with gender, class, race, and orientation. Students interface with existing radical social justice/art organizations in Los Angeles area, and strive to facilitate real change. Letter grading.

181. Forensic Musicology. (4 Seminar, three hours. Recommended requisite: course 104A or 104B or Music 20A, 20B, or equivalent. Enrollmen
Special Courses in Music Industry. (4) Published in 18th century and continuing through developments, performed, listened to, evaluated, and used today. Relevant principles of musical analysis in court; problems of communicating to non-specialist jurors and juries. Employs case study method, with intensive legal reading and/or detailed music analysis at each meeting. Letter grading.

M182. Music Industry. (4) (Same as Ethnomusicology CM182, Music CM182, and Musicology CM186.) 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, 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. Letter grading.

188. Special Courses in Music Industry. (4) Seminar, four hours; outside study, eight hours. Special topics in music industry for undergraduate students taught on experimental or temporary basis. 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.

195. Community or Corporate Internships in Music Industry and Technology. (4) Tutorial, eight hours. Preference given to juniors/seniors in Music Industry minor 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 grading.

197. Individual Studies in Music Industry and Technology. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors in Music Industry minor with minimum cumulative 3.0 grade-point average. Individual intensive 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 required. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. Letter grading.

Scope and Objectives

The Department of Musicology curricula allow students to gain a broad understanding of the history and culture of music. Courses cover virtually every period, style, and genre, including jazz and other popular musics. The department is aligned with the departments of Ethnomusicology and Music; 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.

Musicology appeals to undergraduate students with musical backgrounds whose interests and principal career goals lie in areas other than professional performance. The undergraduate program prepares students for graduate programs in music and related fields and offers training within the broader context of the humanities.

The graduate program 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 major is a designated capstone major. Undergraduate students must complete a senior thesis that demonstrates the skills and expertise they have acquired in earlier coursework. 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, and produce a scholarly discourse. Students talk about the impact of their peers and present their work to other students and, if they choose, to the public as part of a student-organized conference.

Musicality 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 M6A, M6B, M6C, 12W, Music 20A, 20B, 20C, and 6 units (three terms) of performance organizations selected from Ethnomusicology 91A through 91Z, Music 128A through 128C, CW90T, or Music Industry 11; one lower-division humanities elective (minimum of 4 units; choose from study list held in Herb Alpert School of Music Department of Student Services), 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 191P, 195 (if supervised by Musicology faculty), or an equivalent seminar course in ethnomusicology, music, or music industry (see study list held in the Herb Alpert School of Music Office of Student Services and
Enrollment Management; 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 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.

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.

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 Office of Student Services and Enrollment Management in 1442 Schoenberg Music Building. For more information, contact the program advisor, Emily Spitz, at 310–825–4768.

Required Lower-Division Courses (10 units):
Two musicology courses with grades of C or better.

Required Upper-Division Courses (2 to 25 units):
Musicology 101, one seminar course from 160 through 185 or 191 through 191P, one 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 (CPhI), and Doctor of Philosophy (PhD) degrees in Musicology.

Musicology Lower-Division Courses

3. Introduction to Classical Music. (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. (Formerly numbered Music History 5.) 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.

6A-M6B-M6C. Introduction to Musicianship. (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 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. Film and Music. (Formerly numbered Music History 7.) Lecture, four hours; discussion, one hour. History of music in 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. (Formerly numbered Music History 8.) Lecture, four hours; discussion, one hour. Survey of groove-based electronic dance music from its origins in 1960s soul and rock to present, covering disco, house, technoc, ambient, rave, and jungle. Emphasis on interaction of technology, musical structures, psychoactive drugs, and club cultures to induce altered states of musical consciousness; promise (versus reality) of political and spiritual transformation; electronic music as new art music. P/NP or letter grading.

9. American Popular Song. (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 tradition of Tin Pan Alley. P/NP or letter grading.

12W. Writing about Music. (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 de- scription, historical contextualization, subjective reaction, and certain stylistic conventions necessary in writing about music. Satisfies Writing II requirement. Letter grading.

13. Punk: Music, History, Subculture. (Formerly numbered Music History 13.) Lecture, four hours; discussion, one hour. Developments in punk music in their historical and subcultural contexts. Survey of pre- and post-punk bands; 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.


28A. Medieval Period; 28B. Renaissance Period; 28C. 17th and 18th Centuries.

35. Introduction to Opera. (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, dramatic plots, 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. (Formerly numbered Music History 60.) Lecture, four hours; discussion, 90 minutes. Survey of American musical in 20th century, beginning with its roots in operetta, 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. (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 émigré, interment 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 undergraduate students. Life and works of Johann 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, funk, and soul as music centers of production. Relationships between musical forms and cultural issues of 1960s, including Civil Rights Movement, counterculture, black nationalism, capitalism, and separatism, and larger dimensions of African American experience as mediated through grooves-based music. Credit for both courses 64 and 164 not allowed. P/NP or letter grading.

65. Blues in American Music. (5) Formerly numbered Music History 65.) Lecture, four hours; discussion, one hour. History of blues, both as specific genre and as range of techniques and approaches that have been at center of American music and culture, from 19th-century origins to present. Exploration of common-yet-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, gospel, rock, soul, and rap. While following evolution of music through 20th century, examination of how blues has served as metaphor for African American culture as it permeates American traditions. Credit for both courses 65 and 165 not allowed. P/NP or letter grading.

66. Getting Medieval. (5) Formerly numbered Music History 66.) Lecture, four hours; discussion, one hour. Exploration of idea of medievalism in music and culture through the Middle Ages and early Renaissance. Focus on musical forms and practices that are central to medievalism as understood in modern times. Credit for both courses 66 and 166 not allowed. Letter grading.

67. Music of South America. (5) Formerly numbered Music History 67.) Lecture, four hours; discussion, one hour. Study of music of South America from pre-Hispanic times to present. Exploration of how musical forms and practices have been shaped by historical events and contexts, as well as who they are as individuals. P/NP or letter grading.

68. Beatles. (5) Formerly numbered Music History 68.) Lecture, four hours; discussion, one hour. Survey of history of the Beatles within social and historical context of 1960s. Credit for both courses 68 and 168 not allowed. P/NP or letter grading.

69. Music and Social Movements. (5) Formerly numbered Music History 69.) Lecture, four hours; discussion, one hour. History and analysis of various movements in which music has been at center of American music and culture, from 19th-century roots to present. Exploration of com-
M136. Music and Gender. (Formerly numbered Music History M136.) (Same as Gender Studies M136.) Lecture, four hours; discussion, one hour. Analysis of gender ideologies in several musical cultures; representations of gender, body, and sexuality by both musicians and musicologists; contributions of women to Western art and popular music; methods in feminist and gay/lesbian theory and criticism. Letter grading.

M137. Lesbian, Gay, Bisexual, Transgender, and Queer Perspectives in Pop Music. (Formerly numbered Music History M137.) Lecture, four hours; discussion, one hour. Musico-historical analysis 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. (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 capitalism (record labels, advertising, Muzak) on way we consume and are consumed by music. How music functions and malfunctions on records, on CDs, in everyday life. Letter grading.


166. Selected Topics in African American Popular Music of 1960s. (Formerly numbered Music History 166.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 63 lecture. Limited to Musicology majors and minors. Examination of Bach's music in greater depth. Credit for both courses 63 and 163 not allowed. Letter grading.

168. Selected Topics in Music of Mozart. (Formerly numbered Music History 168.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 72 lecture. Introduction to some ways that music has been heard to embody, support, and enact sacredness, including experience of god(s), sense of transcendental, work of liturgy, and emotions of music, politics, and religion. Credit for both courses 72 and 172 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 72 lecture. Credit for both courses 72 and 177 not allowed. Letter grading.

185. Selected Topics in Rock and Roll. (Formerly numbered Music History 185.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 5 lecture. Intensive discussion in seminar setting of selected topics in rock and roll. Credit for both courses 5 and 185 not allowed. Letter grading.


191C. 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. Letter grading.

193A-193D. Research Colloquia in Music History. (Formerly numbered Music History 193A-193D.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 60 lecture. Credit for both courses 60 and 160 not allowed. Letter grading.

197A-197C. Music History Journal Club Seminars for Majors. (2) (Formerly numbered Music History 197A-197C.) Seminar, three hours. Enforced corequisite: attendance, but not enrollment, in course 60 lecture. Credit for both courses 60 and 160 not allowed. Letter grading.

198. Special Courses in Music History. (Formerly numbered Music History 198.) Lecture, four hours. Special topics in music history for undergraduates taken on a temporary basis. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

198A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 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.

198SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 198SA. 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.

198SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 198SB. 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.

198HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed to provide instruction (including library instruction) and mentorship for students who are enrolled in an individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit of 4 units. Individual contract required. Honors content noted on transcript. Letter grading.

199. Research Colloquia in Music History. (Formerly numbered Music History 199.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 60 lecture. Credit for both courses 60 and 160 not allowed. 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 focus on musicology) and to selected debates in those fields. Practical tools for research, logic and structure of arguments, evidence, critical thinking and critique, historiography, rhetoric and voice, and archival and ethnographic research. Introduction to practices such as abstract, grant proposal, paper/project, and review. Letter grading.

200B. Critical, Cultural, and Social Theory. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Discussion of 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, performance studies, sociology, historiography, urban studies, anthropology, philosophy, psychoanalysis, poststructuralism, gender, race, and sexuality studies, lesbian, gay, bisexual, transgender, and queer studies, disability studies, and so 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. May include study of music and to acquire skills in analyzing and interpreting variety of repertoires. Letter grading.

200M. Repertory and Analysis. (2) (Same as Music M201.) Seminar, two hours. Requisite or corequisite: course 200A. 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, 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. Letter grading.

246. Audit Seminar: Analytical/Repertoire Topics. (2) Seminar, three hours. Requisite or corequisite: course 200A. 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 245; concurrent enrollment in both courses not allowed. S/U grading.

248. Seminar: Special Topics in Musicology. (4) Seminar, three hours. Discussion of topic in musicology through variety of approaches that may include historical, theoretical, or analytical approaches to subjects within musicology. Topics announced in advance may be repeated for credit. Letter 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 251; concurrent enrollment in both courses not allowed. Letter grading.

251. Audit Seminar: Theoretical Topics. (2) Seminar, three hours. Requisite or corequisite: course 200A. 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 250; 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. Audit Seminar: Historical Topics. (2) Seminar, three hours. Requisite or corequisite: course 200A. 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.

259. Audit 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, including recording and mapping soundscapes. Letter 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, including recording and mapping soundscapes. Letter grading.

261. Topics in Performance Practice. (4) Seminar, three hours. Designed for graduate students. Investigation of primary literature readings in performance practices across history of Western music; analytical reports and practical applications in class demonstrations. May be repeated for credit. Letter grading.

CM288. Music Industry. (4) (Same as Ethnomusicology CM288 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 in industrial/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 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.


315. 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.

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 CM90T. S/U or letter grading.

495. Introductory Practicum for Teaching Apprentices in Musicology. (4) Seminar, three hours. Preparation: appointment as teaching apprentice in 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.

595. Directed Individual Studies in Musicology. (2, 4, or 6) Tutorial, to be arranged. Limited to graduate students. S/U or letter grading.

596. Directed Individual Studies in Musicology. 4, or 6) Tutorial, to be arranged. Limited to graduate students. S/U or letter grading.

597. Preparation for MA Comprehensive Examina- tion or PhD Qualifying Examinations. (2 to 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.
Faculty Roster

Professor
Sean M. McBride, MS, Colonel, U.S. Marine Corps

Adjunct Assistant Professors
Alexander N. Delva, BS, Lieutenant, U.S. Navy
Robert M. Hill, MS, Commander, U.S. Navy
Eric F. Boyd, BA, Lieutenant, U.S. Navy
Nicholas D. Pattissas, BS, Captain, U.S. Marine Corps

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. 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 scholarships 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 Corps 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 years. 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 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.

Naval Science

Lower-Division Courses

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. Nonscholarship 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 scholarships 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 Corps 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.

1A. Introduction to Naval Science. (3) Lecture, three hours. Introduction to organization of Naval Service, various components of Navy, career opportunities, shipboard damage control, fire fighting, Naval and Marine Corps operations, and some customs and traditions of Naval Service. Letter grading.

1B. Naval Ship Systems I. (4) Lecture, four hours. Introduction to naval engineering, with emphasis on steam, nuclear, diesel, and gas turbine propulsion systems and their associated auxiliary components. Basic thermodynamic theory, electrical theory, stability, and buoyancy. 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. Naval Ship Systems II. (4) Study of naval weapon systems, with emphasis on infrared, radar, and sonar principles. Target designation and acquisition, methods of solving fire control problems, target detection systems. Analysis of transfer and feedback functions inherent in weapon systems.

20B. Seapower and Maritime Affairs. (3) Lecture, three hours. Conceptual study of seapower, with emphasis on historical development of naval and commercial power. Seapower examined in relation to economic, political, and cultural strengths, with focus on current abilities of specific navies to attain national objectives. P/NP or letter grading.

Upper-Division Courses


102A. Naval Operational and Seamanship. (4) Lecture, four hours. Study of rules of road, shiphandling, and basic concepts of multiple ship formations and maneuvering. In-depth analysis of problems associated with operations on high seas and inland waters applying to civil and U.S. Naval craft. Letter grading.

102B. Naval Leadership and Management I. (4) Examination of current and classical leadership and management theories, with emphasis on their application to junior military officer’s role as a leader/manager. Topics include managerial functions, performance appraisal, motivation theories, group dynamics, leadership theories, and communication. Letter grading.

102C. Leadership and Ethics. (4) Lecture, four hours. Recommended requisite for Naval Science ROTC midshipmen: course 102B. Capstone and second of two core leadership courses that provide academic foundation of NROTC 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 Navy 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, and sociological and technological development 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 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. As
NEAR EASTERN LANGUAGES AND CULTURES
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Near Eastern Languages and Cultures
310-825-4165
Department e-mail
William M. Schniedewind, PhD, Chair
Faculty Roster

Professors
Khaled M. Abou El Fadl, JD, MA, PhD (Omar and Azmeralda Afifi Endowed Professor of Islamic Law)
Carol A. Bakhos, PhD
S. Peter Cowe, PhD
Ali Mousavi, PhD
William M. Schniedewind, PhD (Kershaw Professor of Ancient Eastern Mediterranean Studies)
M. Rahim Shayegan, PhD (Jahangir and Eleanor Amuzegar Professor of Iranian Studies)
Susana S. Sylomovics, PhD
Willeke Z. Wendrich, PhD (Joan Slissbe Professor of African Cultural Archaeology)

Professors Emeriti
Arnold J. Band, PhD
Andras E. Bodrogi, PhD
Giorgio Buccellati, PhD
Elizabeth C. Carter, PhD
Herbert A. Davidson, PhD
Robert K. Englund, PhD
Lev Hakak, PhD
Israel K. Fanovala, PhD
Yona Sabar, PhD

Associate Professors
Kathlyn (Kara) M. Cooney, PhD
Nouri Gana, PhD
Asma Sayeed, PhD

Assistant Professors
Catherine E. Bonesho, PhD
Domenico Ingentio, PhD
Luke B. Yarbrough, PhD

Senior Lecturers
Nancy Ezer, PhD
Latifah E. Hagigi, MA
Anahid Keshishian, PhD
Jeremy D. Smoak, PhD

Lecturers
Azza M. Ahmad, PhD
Barbara Cifola, PhD
Abeer T. Hamza, PhD
Hagop Kouloujian, MBA
Nahid Pirnazar, PhD
Banafsheh Pourzangi, MA

Adjunct Professors
Ahmad Karimi-Hakkak, PhD
Nader Saleedi, PhD

Adjunct Associate Professor
Hans Barnard, MD, PhD

Adjunct Assistant Professor
Ali Mousavi, PhD

Scope and Objectives
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.

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:


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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:


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Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

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Students must complete 10 courses as follows:


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.
• 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, periods in time, 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 and 102C or 108, 150 or M51, Islamic Studies M110 and (2) six courses from Anthropology M166Q, Arabic 103A, 103B, 103C, 105, M106, M107, M110, 111A, 111B, 111C, 112A, 112B, 112C, 115, 116A, 116B, 116C, 120, M123, 130, 132, C141, 142, M148, 150 or M51 (unless taken under item 1), M155, M171, 180, 181, Art History 117A, 119B, C120, Comparative Literature 100, History 105A, 105B, M108, 110A, 111B, 111C, Islamic Studies 130, 131, Political Science 132A, 132B, 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 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 the Persian language
• Demonstrated specific skills and expertise, including research, analysis, and writing
• Ability to read texts in Arabic and analyze the language and cultural context

**Preparation for the Major**

**Required:** Jewish Studies M10 or two courses selected from Ancient Near East CM163, Iranian 102A, 102B, 102C, 103A, 103B, 103C, M101A, M101B, M101C, 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 Arabic 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 CM163, Iranian 102A, 102B, 102C, 103A, 103B, 103C, M101A, M101B, M101C, 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.

**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
• Ability to read texts in Arabic, and analyze the language and the cultural context
• 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.

**Transfer Students**

Transfer applicants to the Middle Eastern Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Arabic, Armenian, Hebrew, 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.

The Major

**Required:** Eleven courses, including (1) three selected from Hebrew 102A, 102B, 102C, 103A, 103B, 110A, 110B, 111A, 111B, 111C, 120, 125, 135, 140—students may substitute another upper-division language (Judeo-Arabic, Judeo-Persian, Ladino, Yiddish) if they can demonstrate its integral role in their specific course of study, (2) two courses selected from Jewish Studies M182A, M182B, M182C, 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, 131, Political 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.
The 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 Upper-Division Courses (35 units): Armenian 101A, 101B, and 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 adviser, 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 8, or equivalent.

Required Upper-Division Courses (20 units): Five courses from the Hebrew or Jewish studies section of the department; 199 courses may not be applied. With consent of the undergraduate adviser 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.

Required Upper-Division Courses (20 to 21 units): (1) Three language and civilization courses from Iranian 102A, 102B, 102C, 103A, 103B, 103C, M110A,
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 25 units): A total of five courses, including at least three from one of the following four areas:


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:


Each required course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall, 310-825-4165.

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 (CPhil), 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 Ugurian 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 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 by 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 by 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.


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 with 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 inscriptions, and using hieroglyphic text ed-
Upper-Division Courses

CM101A. Art and Architecture of Ancient Egypt, Predynastic Period to New Kingdom. (4) Same as Art History M110A. Lecture, three hours. Study of art, architecture, sculpture, painting, and minor arts during the Predynastic period and Old Kingdom. May be repeated for credit if the course is focused on a different period or aspect of art. P/NP or letter grading.

CM101B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) Same as Art History M110B. 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 M110C. Lecture, four hours; fieldwork, one hour. Focus on ancient temples of the city of Thebes (modem day Luxor). Theban temples are some of the 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 on Nile’s eastern and western banks through festivals and processions, chronological changes in function and form of Theban temples through time, and statutory program of individual temples. P/NP or letter grading.

M102A-102B. History of Ancient Egypt. (4–4) (Same as History M102A-M102B.) Lecture, three hours; discussion, one hour (when scheduled). Course M102A is not requisite to M102B. Designed for juniors/seniors. Political and social institutions of ancient Egypt and ideas on which they were based. P/NP or letter grading. M102A. Chronological discussion of Prehistory, Old and Middle Kingdoms. M102B. New Kingdom and Late period until 332 BCE.

M103A. History of Ancient Mesopotamia and Syria. (4) (Same as History M103A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural development of the Fertile Crescent from Luristan to neo-Babylonian period. P/NP or 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 millennia BCE, with focus on political and economic history, evolution of Near Eastern writing, monotheism, 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.

M60. Achaemenid Civilization and Empire of Alexander. (5) (Same as History M60 and Iranian 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 conquered the Persian Empire and proceeded as far as India. East has 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 societies. Students gain broad knowledge of Achaemenid and Macedonian empires, facility with Arabic, Farsi, and Persian. Conceptual and developmental analytical skills central to discipline of history. P/NP or letter grading.

99. Honors Seminars. (1) Seminar, three hours. Limited to juniors/seniors. May be repeated for credit. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed to provide hands-on experience 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 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.

121A-B121C. Intermediate Ancient Egyptian Readings. (5–5–5) Lecture, three hours. Requisite: course 121C. Course 121A is requisite to 121B, which is requisite to, 121C. Thematic readings in ancient Egyptian historical, religious, and literary texts. May be repeated for credit. P/NP or letter grading.

122. Elementary Ancient Egyptian. Intensive. (12) (Formerly numbered 8.) Lecture, 10 hours; discussion, 10 hours; fieldwork, one hour. Open to any student who, with the approval of the instructor, has learned, from whatever source, enough Egyptian to qualify for more advanced courses. Intensive course equivalent to courses 120A, 120B, and 120C. Introduction to hieroglyphic script and phonology of Middle Egyptian. Basic rules of Middle Egyptian syntax, with focus on nominal, adjectival, and verbal morphology. Introduction to Egyptian language, with emphasis on verbal systems, pronunciation, reading, and grammar. Offered in summer only. P/NP or letter grading.

123A-C123B. Coptic. (5–5) Lecture, three hours. Introduction to Coptic, finely-honed Coptic language, which is attested in writing from circa 300 to 1400 CE. Concurrently scheduled with courses C223A-C223B. P/NP or letter grading. C123A. Introduction to learning Coptic and Coptic grammar, vocabulary ( Sahidic dialect), with particular emphasis on historical linguistics. C123B. Requisite: course C123A. Introduction to various text genres, from epigraphies to homilies, magical spells, private letters, legal contracts, and Gnostic Gospels found in Nag Hammadi. Readings in texts in dialects other than Sahidic (Bohairic, Fayyumic, etc.).

124. Middle Egyptian Technical Language. (4) Lecture, three hours. Requisite: course 121C. Reading of Middle Egyptian technical literature in hieroglyphic transcription. Medical, veterinary, mathematical, and astronomical texts included. P/NP or letter grading.

125A. Digital Cultural Mapping Core Course A: Place, Time, and Digital World. (4) Lecture, three hours; discussion, one hour. Introduction to how emerging digital mapping technologies like geographic information systems (GIS), virtual globes, and three-dimensional modeling are being utilized as new means of inquiry in the humanities and social sciences. Provides students with critical apparatus needed to effectively, responsibly, and heuristically use technology in digital cultural mapping projects. Analysis of different forms of visual presentation, with focus on data representation through mapping, reading, and argumentation. Students critically assess map-based representations. Tracing of history of mapping and spatial representation of place to learn how mapping has always been connected with societal structures, politics, economics, and culture, because maps do not merely represent reality, but also produce reality by structuring world and organizing knowledge about it. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

M125B. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypercites, and Gnomics. (4) Lecture, three hours; discussion, one hour. Hands-on laboratory-based investigation into new digital mapping technologies, including instruction in Web-based mapping applications, virtual globes, and geographic information systems (GIS). Critique and creation of maps of cultural
phenomena, applying skills students learned in course 125A to real-world data sets in humanities and social sciences. By mastering emerging technologies in field of digital cultural mapping, students take part in evaluation and production of sophisticated visual representations of evidence. They become active participants in development of this new field. How to use suite of GIS and neogeography tools. Fostering of creative approaches to and engagement with mapping technologies: 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 implementation of student-driven research projects. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

M125C. Digital Cultural Mapping Core Course C: Summer Research. (4) (Same as Architecture and Urban Design M125C.) Laboratory, three hours; fieldwork, one hour. Enforced prerequisite: course M125B or Architecture and Urban Design M125B. Participation in collaborative geographic information systems (GIS) research project in humanities or social sciences using skills learned in courses 125A and M125B. Gathering and input of data, analysis of digital-world sources, processing visual 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. Offered in summer only. P/NP or letter grading.

M130. Ancient Egyptian Religion. (5) (Same as Religion 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 well 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.

M135. Religion in Ancient Israel. (4) (Same as Religion M135.) Lecture; three hours. Prehistory of various ancient Israelite religious beliefs and practices, their origins, and development, with special attention to diversity of religious practice in ancient Israel and Canaan during 1st millennium BCE. P/NP or letter grading.

140A-140B-140C. Elementary Semitician. (4-4-4) Lecture, three hours. Requisites: Semitics 140A, 140B. Elementary grammar and reading of ancient Semitic languages, both written and oral, emphasis on translation and understanding. Basic grammar and reading of ancient Semitic languages, both written and oral, emphasis on translation and understanding. Basic grammar and reading of ancient Semitic languages, both written and oral, emphasis on translation and understanding.

150A-150B. Survey of Ancient Near Eastern Literatures in English. (4-4) Lecture, three hours. Each course may be taken independently for credit. P/NP or letter grading. 150A. Mesopotamia; 150B. Egypt. Preparation: familiarity with Egyptian history. Enforced prerequisites: courses M103A, M103B. Survey of 3,000 years of ancient Near Eastern literature. Reading of Egyptian texts in translation to study Egypt's intellectual history and trace transformations in its construction of cultural identity. Topics include invention of writing, epic tradition, divination, magical spells, literary texts about magic and magicians, worship of gods and goddesses, and hymns. Discussion of text analysis such as narratology.


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 under standings 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 early and late Bronze Age traditions and Iron Age neighbors. Archaeological and textual data for identities, such as Amorites, Canaanites, Phoenicians, Egyptians, Assyrians, and Babylonians, form basis for evaluating construction and maintenance of various biblical identities. Introduction to theoretical and methodological issues involving historical archaeology of ancient Israel and Levant, and possibilities for investigating narrative traditions in archaeological record. P/NP or letter grading.

CM163. Archaeology of Iran. (4) (Same as Iran CM163.) Lecture, three hours. Designed to introduce students to the prehistoric and historical archaeology of Iran and its Iron Age neighbors. 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 messages. Consideration of audiences as well as original contexts of each object. Focus on people behind objects, technologies, or material characteristics. P/NP or letter grading.

CM165. Egyptian Archaeology. (4) Seminar, three hours. Opportunity to research aspects of topics in Egyptian Archaeology. Topics vary each year. May be repeated for credit. Concurrently scheduled with course C266. P/NP or letter grading.

166. Art and Death in Ancient Egypt. (4) 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 materials—both objects and architecture—from Predynastic to Roman periods. P/NP or letter grading.

M167. Magic in Ancient World. (4) (Same as Classics M167.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: Classics 10 or 20. Exploration of art of influencing natural course of events by occult means as practiced in ancient world at large. Coverage of beliefs in supernatural forces, rites aimed at controlling these forces effectively, and character and social roles of ritual experts in various cultures of ancient world. Source material includes types of magical spells, literature and literary genres, magical objects and artifacts such as amulets and ritual implements. P/NP or letter grading.

M168. Introductory Hittite. (4) (Same as Indo-European Studies 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 morphological, verbal forms, and basic vocabulary. Study of selected texts from variety of genres in translation. P/NP or letter grading.

CM169. Introduction to Archaeological Sciences. (4) (Same as Anthropology CM110Q.) Lecture, three hours. Basic underlying introductory methods and techniques throughout field of archaeology to implement them and to appreciate and evaluate results of their use by others who have em barked on careers in field. Introduce students to theoretical, methodological, systems, systematic instruction in digital data management and mining, scientific analysis of materials (including geological and biochemical techniques), 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.


175. Conceptions of Race in Ancient Egypt. (4) Lecture, three hours; discussions, one hour. Exploration of how representation and understanding of race developed and was maintained within context of ancient Egyptian culture. Race of ancient Egyptians is still at stake and tied to larger issues of race and ethnic inequalities, prejudices, and oppression. Examines how different issues invite comparison with conception of race in ancient world, which was not necessarily equivalent to our own. By consulting diverse group perspectives, including those of early scholars, contemporary anthropologists, Afrocentrist scholars and artists, Hebrew Bible, ancient Egyptian evidence and ancient Nubian evidence, 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.

C177. 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 CM277. 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 virtual exploration of Fowler 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 messages. Consideration of audiences as well as original context of each object. Focus on people behind objects, technologies, or material characteristics. P/NP or letter grading.

M185D. Religions of Ancient Near East. (4) (Same as History M185D and Religion M185D.) Lecture, three hours; discussion, one hour (when scheduled). Described for juniors/seniors. Social systems of ancient Near East, 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, wisdom, and moral conduct. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as advanced undergraduate lecture course. Exploration of topics in greater depth through supervised research. May be repeated for credit. 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. Involves study with lecture course instructor. To explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

197. Individual Studies in Ancient Near East. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. As described 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 Ancient Near East. (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

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 preliminary 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 their progress. Preparation for oral progress-report presentations, one on theoretical framework and one on practical aspects of project. Final written research design that incorporates theo-
Coptic alphabet, grammar, and vocabulary (Sahidic Seminar, two hours. Readings in texts shaped and influenced by interpretation and use of exploration of historical, social, and political conditions. May be repeated for credit. S/U or letter grading.

210. Late Egyptian. (4) Lecture, three hours. Required: 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 Graeco-Roman Period. (4–4) Lecture, three hours. Introduction to grammar and orthography of hieroglyphic texts from Graeco-Roman temples. Texts and translations of various textual types. Letter grading.

215. Readings in Middle Kingdom Literature. (4) Seminar, three hours. Enforced requisites: courses 120A, 120B, 120C. Survey of Middle Kingdom literature through close readings of texts in original language and evaluation of current scholarship on these texts. Students hone their knowledge of Middle Egyptian grammar and orthography, familiar with historical and cultural contexts 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. Required: course 121C. Course 221A is requisite to 221B. Introduction to Demotic grammar and orthography. Reading of texts from various genres. May be repeated for credit with topic change. S/U or letter grading.

C223A-C223B. Coptic. (5–5) Lecture, three hours. Introduction to Coptic, final phase of Egyptian language, which was written from the 2nd century CE to the 7th century CE. Concurrently scheduled with courses C123A-C123B. S/U or letter grading. C223A. Devoted to learning Coptic alphabet, grammar, and vocabulary ( Sahidic dialect) with particular emphasis on historical linguistic issues. C223B. Required: course C223A. Introduction to a variety of Coptic textual genres, from hagiographies to homilies, magical spells, private letters, legal contracts, and Gnostic Gospels found in Nag Hammadi. Readings in texts in dialects other than Sahidic (Bohairic, Fayumic, Akhmimic).

230. Seminar: Ancient Syria/Palestine. (4) Seminar, three hours. Examination of selected topics on political, social, and intellectual history of ancient Israel. Exploration of how historical, social, and political contexts shaped and influenced interpretation and use of biblical texts. May be repeated for credit. S/U or letter grading.

240A-240B-240C. Seminars: Sumerian Language and Literature. (4–4–4) Seminar, two hours. Readings of texts from various Sumerian periods and literary genres; selected problems in linguistic or stylistic analysis and literary history. S/U or letter grading.

CM259. Archaeology of Iran. (4) (Same as Iranian CM259) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Islamic periods. 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 Heerenhouse, Los Angeles County Museum 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, statuey and monuments, settlement and use history, translation of appropriate documentary texts, including steleae, monumental inscriptions, or pertinent socioeconomic texts. May be repeated. 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 repeated for credit with consent of instructor. S/U or letter grading.

M265. Depositional History and Stratigraphic Analysis. (4) (Same as Archaeology 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 embedded cultural materials. Study of issues covered in the Egyptian 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.

C266. 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 C161. 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 Egypt through early 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 CM210Q) 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 embodied them in their scholarly publications or theoretical models. Systematic instruction in digital data management and analysis, scientific analysis of materials (including geological and biochemical techniques), and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM169. S/U or letter grading.

270. Old Egyptian. (4) Seminar, three hours. Enforced requisites: courses 120A, 120B, 120C, or one year of introductory Middle Egyptian. Advanced reading class in Old Egyptian, earliest of five Egyptian language phases, to prepare students for independent research on Egyptian texts dating to Old Kingdom (circa 2680 to 2100 BCE). Through close reading of texts in original language and original format, students learn grammar, orthography, and phraseology of Old Kingdom texts as well as tools and methods of epigraphy. Focus on tomb biographies, royal edicts, and Pyramid Texts. Letter grading.

C277. 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 C177. 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.


Arabic

Lower-Division Courses

1A-1B-1C. Elementary Standard Arabic. (5–5–5) Lecture, six hours. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Not open to students who have Prior knowledge of Arabic. Introduction to formal Arabic (modern standard Arabic), including listening, speaking, reading, and writing. P/NP or letter grading.

8. Elementary Standard Arabic: Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intensive course equivalent to courses 1A, 1B, and 1C. Introduction to fundamentals of standard Arabic, including pronunciation, grammar, and Arabic script, with emphasis on all four basic language skills—speaking, listening, comprehension, reading, and writing. 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.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. In-depth study with lecture course. May be applied toward honors credit for eligible students. 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 with 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

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 requisites: courses 102A, 102B, 102C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Introduction to Qur’anic Arabic, including pronunciation, grammar, and Arabic script, with emphasis on all four basic language skills—speaking, listening, comprehension, reading, and writing. Offered in summer only. P/NP or letter grading.
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 Muslim thinkers and reformists. Strong focus on analytical and writing skills through in-class assignments and discussion. Letter grading.

M107. Islam in West. (5) (Same as Islamic Studies M107 and Religion M107.) Lecture, three hours; discussion, one hour. Acquisition of understanding of basic dogmatic and social elements of Islam. Survey history of Islam in West, with focus on U.S. and France. Analysis of issues relevant to growth and development of select Muslim societies in West. Examines 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, reading, and writing. Offered in summer only. P/NP or letter grading.

M110. Thousand and One Nights/Al Layla Wa-Layla. (4) (Same as Comparative Literature M110.) Lecture, three hours. Knowledge of Arabic not required. Since its appearance in Europe in 1704, Thousand and One Night has become known as Arabic literature in the West. Examination of cycle 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 in relation to classical Arabic, and Western appropriations of tales in music, film, and novels (Ravel, Rimsky-Korsakov, Barth, Poe, and Walt Disney). P/NP or letter grading.

111A-111B-111C. Elementary Spoken Egyptian Arabic. (4–4–4) Lecture, three hours. Enforced requisite: course 1C or 8. Course 111A is enforced requisite to 111B. Not suitable for heritage speakers. Introduction to spoken Arabic dialect of Egypt. Training in listening, speaking, and reading. P/NP or letter grading.

111S. Summer Intensive Elementary Egyptian Arabic. (4) Lecture, three hours. Knowledge of Arabic not required; not suitable for heritage speakers. Introduction to spoken Arabic dialect of Egypt. Training in listening, speaking, and reading. P/NP or letter grading.

112A-112B-112C. Advanced Spoken Egyptian Arabic. (4–4–4) Lecture, three hours. Studies Egyptian colloquial Arabic for heritage speakers or students who have completed courses 1A, 1B, 1C. P/NP or letter grading.

115. Studies 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. May include Iraqi, Levantine, North African, or Gulf Arabic. May be repeated for credit. P/NP or letter grading.

116A-116B-116C. Elementary Iraqi Arabic. (5–5–5) Lecture, five hours. Course 116A is requisite to 116B, which is requisite to 116C. Introduction to dialect of Arabic spoken in contemporary Iraq, with emphasis on conversational proficiency. Recognition and production of sounds of Iraqi Arabic and basic vocabulary, 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 102C. Readings from premodern literary texts, with grammatical and syntactical analysis. May be repeated for credit. 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, verbal presentations, and readings. Authentic literary and cultural works of Arabic-speaking world, preparing students for more advanced literary Arabic courses. P/NP or letter grading.

141. Modern Arabic Literature. (4) Lecture, three hours. Requisite: course 102C. Conducted in English and Arabic, with all required readings in original Arabic only. Readings in modern Arabic literature, variably organized across or around particular trends, genres, topics, canonical authors, regional, or national literatures, mixing theoretical with formal literary, critical, and theoretical texts and making use of film, video, clip, and song in approaching literary culture. May be repeated for credit. Concurrently scheduled with course 2C41. 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 reports, and studies in method of translation 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 (iltizam), with possible focus on specific genres such as realist/neoréalist 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. Possible examination of various national cinemas such as Tunisian, Egyptian, Moroccan, Algerian, and Palestinian. Various musical genres such as Rai, Mizoued, and Hip-hop also examined in relation to emergence not only of national cinemas, national music industries, and iconic 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.

150. Classical Arabic Literature in English. (4) Lecture, three hours. Readings in English; knowledge of Arabic not required. Survey of premodern Arabic cultural production in its political, religious, and social contexts. Coverage of pre-Islamic Arabic, rise of Islam, and major themes of Southwest Asian history, along with significant figures and moments in literature and culture of premodern period. Consideration of selected modern responses to Arabic tradition. P/NP or letter grading.

M151. Modern Arabic Literature in English. (4) (Same as Comparative Literature M167.) 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 culture in transnational context or questions of reception, exoticism, 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; Arab 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 or more of other Arab nations—efault, Algeria, Lebanon, or Egypt. May also be organized around Arabic literatures written in one specific language, namely English, Arabic, or French. Letter grading.

M155. Al-Andalus: Literature of Islamic Spain. (4) (Same as Comparative Literature M119.) Lecture, three hours. Study of literature of Islamic Spain to learn about interaction of Arabic and Western and Ar- abic and Jewish cultures and to recognize Islamic cultural influences in European life and letters. P/NP or letter grading.

M171. Culture Area of Maghrib (North Africa). (4) (Same as Anthropology M160 and History M108C.) Lecture, three hours. Designed for juniors/seniors. In- troduction to Maghrib, especially Morocco, Al- geria, 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 repre- sentations of Islam, and religions in region’s public spaces. P/NP or letter grading.

177. Variable Topics in Arabic. (4) Lecture, variable 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 at various formal and dialectal levels, with reference to language change and to textual forms. Introduction to linguistic analysis of Arabic phono- nology, morphology, and syntax and to linguists’ ap- proaches to specific problems posed by Arabic grammar and dialectology.

181. Translating Arabic. (4) Seminar, three hours. Preparation: advanced proficiency in English and Ar- abic (at least three years of Arabic instruction or equival- ent). Open to both native and nonnative speakers of English and Arabic. Training of students in method- ology 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 written translation of Arabic texts, with re- view of linguistic and cultural difficulties that arise in course of translation. Texts may include classical Ar- abic 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 be concurrently enrolled in affiliated main course. Primary readings and additional work in Ar- abic to enrich and augment work assigned in main course, including reading, writing, and other exercises. M189. Directed Research or Senior Project in Arabic. (1–1–1) Tutorial, one hour. Limited to 20 students. Designed as adjunct to upper-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 credit. 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 credit. P/NP or letter grading.

197. Individual Studies in Arabic. (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 Arabic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual research 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

220. Seminar: Islamic Texts. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

223. Seminar on the Interpretation of the Qur'an. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) (Same as Hebrew M231.) Lecture, three hours. Requisites: course 102C, Hebrew 102C. Reading of Judeo-Arabic texts by Mai M231.) Lecture, three hours. Requisites: course 102C, (Same as Hebrew

240A. Seminar: Arab Historians. (4) Seminar, three hours. Introduction to very large body of literature on medieval Islamic history. Selected readings in Arabic that represent cross-section of Islamic historical writings, in Arabic. Topics: Ishaq’s Sir, Wajdi’s Maghazi, Al-Baladi’s Futuh, Tabari’s Tan, digest of Ya’qubi and Mas’udi, Ibn Khalidun’s Muqaddima, and Maqrizi’s topography. Historians studied either to determine their relationship to their view of history, and/or to understand its theoretical foundations. Exploration of sources, search tools, and problems in Islamic history. 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-Mamlik, topography, and travel accounts. May be repeated for credit. S/U or letter grading.


250. Seminar: Premodern Arabic Literature. (4) Seminar, three hours. Readings in Arabic texts from variety of epochs 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, biography, geography, medicine, mathematics, theology, asceticism, and mysticism. May be repeated for credit. 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 prose and poetry. May be repeated for credit. Letter grading.

M255. Literatures and Cultures of Maghreb. (4) (Same as Comparative Literature M251.) Seminar, three hours. Limited to graduate students. Examination of traditionally diverse literatures of Maghreb in their multiple and competing contexts of language and gender politics, religious and cultural formations, Pan-Arabism, colonialism, nationalism, and economic development, modernity and globalization, immigration and citizenship, soccer industry and Rai music, mass media and Star Academy Maghreb, and mass media literatures in English and their English translations from different Maghrebian languages (particularly Arabic and French) in conjunction with theories of language and linguistic pluralism, cultural translation, and the body of other relevant theories of gender, globalization, and postcolonial cultural studies. S/U or letter grading.

275. Encountering Arabic Manuscripts: Introduc- tion to Arabic Paleography and Critical Edition of Manuscripts. (4) Lecture, three hours; discussion, one hour. Requisite: course 103C. Introduction to Ar-abic paleography and how to prepare editions of me- dieval manuscripts appears and stems. During past decades enormous number of 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, philosophy, the- ology, law, and history. It is rich in works related to studies of theologians and scholars at different cen- ters of learning in Iran during Safavid period noted for works of Shite theology, Islamic sciences, and philos- ophy. Course opens this treasure to graduate students interested in editing and/or translating manuscripts. S/U or letter grading.

M286. Modern Arab Thought. (4) (Same as Comparative Literature M286.) Seminar, three hours. While much has been written and said about resurgence and spread of political Islam after collapse of ideology of secularism, recent approaches have emphasized exist- tence of tensions between Arab thought and actions in aftermath of 1967. Course addresses and re- dresses this glaring imbalance by considering new cultural—literary, critical, philosophical, ar- tistic, and political—events before and after Al- Nada but mostly before and after 1967 and fosters insightful approaches to unlikely coexistence in Arab contemporary of ever-deepening and generalized crisis and of steady and consolidated development (if not effervescence) of cultural and artistic production. S/U or letter grading.

496. Arabic Language Pedagogy Course. (2) Seminar, three hours. Taught in English and Arabic. Discus- sion of applicable principles of language and prolif- eration and teaching, and learning. Content designed to address Arabic language pedagogy, with emphasis on prac- tical issues and applications of different language teaching methodologies. Activities include lectures, classroom observations, and teaching demonstra- tions. Participants collaborate on projects that investi- gate issues related to teaching different language skills, such as grammar, speaking, reading, and writing. S/U grading.

565. 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. Taught in English. Designed as adjunct to lower-division language course. Exploration of topics in greater depth through readings, short stories, and poems written since World War II and film showings. Emphasis on enhancing stu- dents’ self expression in idiom, both orally and in written form. Each course may be taken inde- pendently for credit. P/NP grading.

106A-106B-106C. Armenian Society and Culture. (4–4–4) Lecture, four hours. Required requisite: course 105C. Students with knowledge of Eastern or Western Armenian must contact instructor to determine appropriate enrollment level. Continuing introduction to Ar- menian literature, with greater attention to readings from short stories and simple newspaper articles and film viewing on video. Emphasis on improving students’ self expression in idiom, both orally and in written form. Each course may be taken inde- pendently for credit. P/NP grading.

105A-105B-105C. Intermediate Modern Eastern Ar- menian. (5–5–5) Lecture, five hours. Recommended requisite: course 4C. Students with knowledge of Eastern or Western Armenian from elementary or high school should contact instructor to determine appropriate enrollment level. Designed for students with little or no prior knowledge of Eastern Ar- menian, official idiom of Republic of Armenia. Intro- duction to basics of grammar and conversation. P/NP or letter grading.

Upper-Division Courses

101A-101B-101C. Elementary Modern Western Ar- menian. (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, con- versation, and exercises. P/NP or letter grading.

102A-102B-102C. Intermediate Modern Western Armenian. (5–5–5) Lecture, five hours. Recommended requisite: course 102A. Students with knowl- edge of Eastern or Western Armenian from elemen- tary or high school should contact instructor to deter- mine appropriate enrollment level. Reading of selected texts, composition, and conversation. Each course may be taken independently for credit. P/NP or letter grading.

103A-103B-103C. Advanced Modern Western Ar- menian. (4–4–4) Lecture, four hours. Recommended requisite: course 103A. Students with knowl- edge of Eastern or Western Armenian from elementary or high school should contact instructor to determine appropriate enrollment level. Designed for students with advanced speaking fluency and reading abilities in Armenian. Exploration of advanced Western Armenian in following areas of competency: fluency, literacy, accuracy, and proficiency. Use of language to engage literary themes and cultural issues of historical and contemporary signifi- cance for Armenian speakers. P/NP or letter grading.

104A-104B-104C. Elementary Modern Eastern Ar- menian. (5–5–5) Lecture, five hours. Course 104A is recommended requisite to 104B, which is recom- mended requisite to 104C. Students with knowledge of Western or Eastern Armenian from elementary school should contact instructor to determine appropriate enrollment level. Continuing introduction to Ar- menian grammar, with greater attention to readings from short stories and simple newspaper articles and film viewing on video. Emphasis on improving students’ self expression in idiom, both orally and in written form. Each course may be taken inde- pendently for credit. P/NP grading.

106A-106B-106C. Armenian Society and Culture. (4–4–4) Lecture, four hours. Required requisite: course 105C. Students with knowledge of Eastern or Western Armenian from elementary or high school should contact instructor to determine appropriate enrollment level. Designed for students with advanced speaking fluency and reading abilities in Armenian. Discussion of contemporary Armenian social and cul- tural issues through readings from critical essays, edi- torials, short stories, and poems written since World War II and film showings. Emphasis on enhancing stu- dents’ self expression orally and in written form. Each course may be taken independently for credit. Letter grading.

110. History of Armenian Language. (4) Lecture, three hours. Required: course 1C or 4C. Exploration of history of Armenian language as reflected in litera-
ture created in Armenian throughout written period (5th through 20th centuries). Use of top-down approach beginning with modern state of Armenian language in its two standard versions (Western and Eastern), then retracing of historical development through formation of New Armenian (17th century), Middle Armenian (17th through 12th centuries), and earliest attested form, Grabar, literary version of ancient Armenian (11th through 5th centuries). Discussion of attempts at reconstructing major features of Armenian phonology and morphology in prehistoric period. P/NP or letter grading.

120. Language in Diaspora: Armenian as a Heritage Language. (4) Lecture. Three hours. Comprehensively examination of status of Armenian as heritage language in diasporic context. Introduction to diaspora, particularly in Armenian context, and to heritage languages. Concurrently scheduled with course 1C57. Review of implementation of standard norms of Armenian (Eastern and Western) and specific 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 restraints (i.e., anxiety, fear, etc.) connected with speaking heritage languages, length of time with attitudes with, and role of language in Armenian in diasporic construction. P/NP or letter grading.

130. Armenian Civilization under Bagratid Dynasty, 884 to 1064. (4) Lecture. Four hours. Interdisciplinary investigation of sociopolitical and economic factors in creation of works of art (literature, art, architecture, etc.) 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 polity established outside homeland and examination of degree to which social structure and cultural and aesthetic norms were impacted by those of West (Byzantium, Western Europe) and East (Crusader states, Seljuqs, 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 desirable but not essential. Introduction to history, tradition, and scope of Armenian music. Focus on different genres and approaches, and interactions between music and culture, society, and history. P/NP or letter grading.


C151. 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 C251. P/NP or letter grading.

C152. Modern Armenian Drama as Vehicle for Social Critique. (4) Lecture, four hours. Readings of selected plays from 1868 to 1992 from three main genres of tragedy, comedy, and 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. P/NP or letter grading.

C153. 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 C253. P/NP or letter grading.


C166. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 1C or 4C. Overview 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. Requisite: 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 practitioners’ individual voice, with particular consideration to poetics and aesthetics, continuity and innovation under impact of modernism, and employment of poetic structure as medium for expression of deeper philosophical values. All 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 matrix 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 as determined by 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 5 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 as determined by course instructor. May be applied toward honors credit for eligible students. 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 investigation under guidance of faculty mentor. Culling 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, three hours. 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 relevant to cultural development prior to 8th century and related works up to 19th century. Each 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.

C251. 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.

C252. Modern Armenian Drama as Vehicle for Social Critique. (4) Lecture, four hours. Readings of selected plays from 1868 to 1992 from three main genres of tragedy, comedy, and 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 C152. Letter grading.

C253. 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.


C256. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 1C or 4C. Overview 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 C156. Letter grading.

C266. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 1C or 4C. Overview 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 C156. Letter grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Hebrew

Lower-Division Courses

1A–1B–1C. Elementary Hebrew. (5–5–5) Lecture, four hours; laboratory, one hour. Enforced preparation: Hebrew placement test. Course 1A is enforced requi-
site to 1B, which is enforced requisite to 1C. Not open to native speakers. Introduction to modern Hebrew, including listening, speaking, reading, and writing. P/NP or letter grading.

8. Elementary Hebrew: Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 102A, 102B, and 102C. Introduction to modern Hebrew, including listening, speaking, reading, and writing. 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 periods and cultures. May be repeated for a 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. 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 a minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

102A-102B-102C. Intermediate Hebrew. (5-5-5) Lecture, five hours. Enforced requisite: course 1C or Hebrew placement test. Course 102A is enforced requisite to 102B, which is enforced requisite to 102C. Not open to native speakers. Amplification of grammar; reading of texts from modern literature. P/NP or letter grading.

103A-103B-103C. Advanced Hebrew. (4-4-4) Lecture, four hours; requisites: courses 102A, 102B, and 102C, or Hebrew placement test. Students with prior knowledge of Hebrew who did not take courses 102A, 102B, and 102C should contact instructor to determine appropriate enrollment level. Not open to native speakers. Designed for students with intermediate speaking fluency and reading abilities in Hebrew. Introduction to modern Hebrew literary texts. P/NP or letter grading.


110C. Readings in Biblical Hebrew. (4) Lecture, three hours. Requisites: courses 110A, 110B, and 102C, or Hebrew placement test. Students with prior knowledge of Hebrew who did not take courses 102A, 102B, and 102C should contact instructor to determine appropriate enrollment level. Not open to native speakers. Designed for students with intermediate speaking fluency and reading abilities in Hebrew. Introduction to modern Hebrew literary texts. P/NP or letter grading.

111A. 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 different aspects of Israeli 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. Vocabulary used in daily life, different speech acts in both formal and informal contexts, and various Israeli sociocultural issues using different kinds of media, such as video, internet, and 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 scholarly articles in modern Hebrew scholarship, study of Jewish history, 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. Reading and discussion of short stories and films by well-known contemporary Israeli authors. May be repeated for credit. P/NP or letter grading.


125. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in Mishnah, Talmud, and Midrash. May be repeated for maximum of 16 Units. Letter grading.

130. Rabbinic Texts. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in Mishnah, Talmud, and Midrash. May be repeated for credit. P/NP or letter grading.


C140. Modern Hebrew Poetry and Video. (4) Lecture, four hours. Requisites: courses 102A, 102B, 102C. Reading in Hebrew poems and videos. May be repeated for credit. P/NP or letter grading.

140. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in Mishnah, Talmud, and Midrash. May be repeated for credit. P/NP or letter grading.


150. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Reading in biblical Hebrew of major works. May be repeated for credit. P/NP or letter grading.

160. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Reading in biblical Hebrew of major works. May be repeated for credit. P/NP 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 monarchies (medieval religion, medicine, philosophy) and more recent texts in Judeo-Arabic dialects of Iraq and Egypt, with discussion of grammar and deviations from norms of classical Arabic. S/U or letter grading.

235. Hebrew Literature of Second Temple Period. (4) Seminar, three hours. Requisite: course 103C. Reading and analysis of biblical texts from norms of classical Arabic. 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 biblical Hebrew texts in relation to major versions: philosophical, comparative, literary, and historical study of various biblical books. May be repeated for credit. S/U or letter grading.

235. Hebrew Literature of Second Temple Period. (4) Seminar, three hours. Requisite: course 103C. Reading and analysis of biblical texts from norms of classical Arabic. 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 monarchies (medieval religion, medicine, philosophy) and more recent texts in Judeo-Arabic dialects of Iraq and Egypt, with discussion of grammar and deviations from norms of classical Arabic. S/U or letter grading.

235. Hebrew Literature of Second Temple Period. (4) Seminar, three hours. Requisite: course 103C. Reading and analysis of biblical texts from norms of classical Arabic. May be repeated for credit. S/U or letter grading.

235. Hebrew Literature of Second Temple Period. (4) Seminar, three hours. Requisite: course 103C. Reading and analysis of biblical texts from norms of classical Arabic. May be repeated for credit. S/U or letter grading.

235. Hebrew Literature of Second Temple Period. (4) Seminar, three hours. Requisite: course 103C. Reading and analysis of biblical texts from norms of classical Arabic. May be repeated for credit. S/U or letter grading.

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235. Hebrew Literature of Second Temple Period. (4) Seminar, three hours. Requisite: course 103C. Reading and analysis of biblical texts from norms of classical Arabic. May be repeated for credit. S/U or letter grading.
Lower-Division Courses

1A-1B-1C. Elementary Persian. (5-5-5) Lecture, discussion; three hours; laboratory, 30 minutes per day. Preparation: Knowledge of Persian. P/NP or letter grading.

8. Elementary Persian: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Persian to qualify for more advanced courses. Intensive course equivalent to courses 1A, 1B, and 1C. Introduction to fundamentals of Persian, including pronunciation, grammar, and Persian script, with emphasis on all four basic language skills—speaking, listening comprehension, reading, and writing. 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.

20A-20B-20C. Accelerated Elementary Persian. (6-6-6) Lecture, four hours; discussion two hours; laboratory, 30 minutes per day. Preparation: Some knowledge of spoken Persian. Course 20A is enforced requisite to 20B, which is enforced requisite to 20C. Intensive and thorough study of fundamental structure of Persian. Grammar teaching from a wide range of classical and modern poetry and proses compositions. P/NP or letter grading.

M60. Achaemenid Civilization and Empire of Alexander. (3) Same as Ancient Near East M60 and 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 to shape thought and history. The 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 intellectual 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 states. Students gain broad 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, 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

102A-102B-102C. Intermediate Persian. (5-5-5) Lecture, six hours. Requisite: course 1C or 20C. Course 102A is requisite to 102B, which is requisite to 102C. P/NP or letter grading.

103A-103B-103C. Advanced Persian. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 202C. Students who do exceptionally well in course 20C may be permitted to enroll with consent of instructor. Each course may be taken independently for credit. P/NP or letter grading.


105A. Bahá’í Faith in Iran: Historical and Sociological Survey. (4) (Same as Religion M105A.) Lecture, three hours. Readings in English. Rise and development of Bahá’í religion in context of 19th century Iran. Focus on personalities of Bab, Bahá’u’lláh, and ‘Abdu’l-Bahá. May be taken independently for credit. P/NP or letter grading.


105C. Bahá’í Faith in Iran: 20th-Century Iran and the Bahá’ís. (4) (Same as Religion 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 independent for credit. P/NP or letter grading.

110A-110B-110C. Iran Civilization. (4-4-4) (Same as Ancient Near East M110A-M110B-M110C and History M110A-M110B-M110C.) Lecture, three hours; discussion, one hour (when scheduled). P/NP or letter grading. 110A: Achaemenid Empire. 110B: History of Sasanian Empire. 110C: History of Seljuk Empire and Golden Age of Persia. 110D: Early Islamic Period. 110E: Middle Islamic Period. 110F: Later Islamic Period. 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. P/NP or letter grading.

161A-161B. Middle Eastern Iran. (4-4) Lecture, three hours. Preparation: Knowledge of Persian desirable. Course 161A is requisite to 161B, which is requisite to 161C. Studies in grammars and texts of Middle Iranian languages (e.g., Middle Persian, Parthian, Sogdian, Khitanese, Buddhist) in order to be repeated for credit with consent of instructor. P/NP or letter grading.

161C. Archaeology of Iran. (4) Same as Ancient Near East CM161C.) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Achaemenid times. Concurrently scheduled with course CM125P. P/NP or letter grading.

166. Ancient Cities of the Near East: Archaeological Survey of Historic Cities and Sites of Iran from 4000 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, forma-
tion of cities and their development and expansion throughout late Sasanian and early Islamic periods to preindustrial era in years past of century. Study of selection of ancient Iranian sites and cities, from fifth millennium BC to Qajar period, based on relevant archaeological and geographic/historical sources. Introduction to history and archaeology 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) History of religion in Iran from the beginning to the Mohammadan conquest; Indo-Iranian background, Zoroastrianism, Manichaeism, Mazdakism.

M178. 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 Persian Jews from the beginning of history through late Sasanian 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, including identity and status, religious tolerance versus forced conversion, Iranian Jewish emigration, and dynamic symbiosis between Iranian Jews and other Iranians. P/NP or letter grading.

187. Variable Topics in Iranian 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.

188FL. Special Studies: Readings in Iranian. (2 to 4) Seminar, two hours. Requisite: 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 carried out 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. 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 Iranian. (2 to 4) Tutorial, one hour. Limited to juniors/senior. 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 Iranian. (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

M210. Topics in Ancient Iranian History, (4) (Same as Ancient History and History M211.) Seminar, three hours. Varying topics on Elamite, Achaemenid, Arsacid, and Sasanian history. May be repeated for credit. S/U or letter grading.


221. Rumi, Mystic Poet of Islam. (4) Seminar, three hours. Requisite: course 220A or 220B. Study of life and works of Rumi, context of construction of Sufism and poetic creativity. May be repeated twice for credit.


231A-231B-231C. Advanced Middle Iranian. (4–4–4) Lecture, three hours. Requisite: 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.

263. Introduction to Persian Language. (4) Seminar, three hours. Requisites: courses 103A, 103B, 103C. 199. May be repeated twice for credit.


CM259. Archaeology of Iran. (4) (Same as Ancient Near East CM259.) Lecture, three hours. Designed to introduce students to archaeology from prehistoric through Achaemenid 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.

99. Honors Seminars. (1) Seminar, 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. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. 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.

M110. 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. 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.

M111. Introduction to Islamic Archaeology. (4) (Same as Art History M119C and Middle Eastern Studies M119C.) Lecture, three hours. Study of selected monuments of Islam in Arabia and Jerusalem to humble remains of small Egyptian port, broad focus on archaeological and standing remains in central Islamic region (primarily Syria 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 also faceable in material remains. 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 M119D, and Middle Eastern Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquests in 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 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.

M115. Islam and Other Religions. (5) (Formerly numbered M50.) (Same as Religion 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. Consideration of axis questions such as how does Qur’an reflect religious plurality; how does it situate Islam vis-a-vis its alternatives; what encounters did rapid expansion of Islam bring about in diverse societies; how did Islam and other religions change through debate, war, and exchange of ideas; what roles has political power played in conditioning interreligious interaction; how does religious hybridity affected what it means to be Muslim; what is different about interreligious interactions in secular states and societies; and how is past invoked to justify opinions and policies today. Investigation of these questions by conducting microstudies: close readings of sources through theoretical lens. P/NP or letter grading.

130. Shi’a in Islamic History. (4) Seminar, three hours. Discussion of the rapid development of Shi’a Islam, its doctrines, and practices; major branches: Twelvers, Ismailis, Zaydis; their contribution to Islamic thought and civilization; modern trends of reinterpretation and rehabilitation.

151. Islamic Thought. (4) Lecture, 90 minutes; discussion, 90 minutes. Recommended requisite course M110. Based on original writings of major Islamic thinkers in English translation, provides balanced picture of enormous ideological variety found in contem-
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.

M67. Popular Jewish and Israeli Music. (3) Same as Music M67. 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 sounds 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.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division course lecture. 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. 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 arranged by instructor 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 Islamic Studies. (2 to 4) Tutorial, one hour. 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. Introduction to Islamic Studies. (4) Seminar, three hours. Introduction to various disciplines and methods in study of Islamic histories, cultures, and societies, with special emphasis on methodologies 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 Arabic, English, and one other Western language. Comprehensive 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.

291A. Variable Topics in Islamic Studies. (4) Seminar, three hours. Selected topics on Islam. May be re-
peated for credit with topic change. 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.


598. MA Thesis Research and Preparation. (2 to 8) Tutorial, to be arranged. S/U or letter 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 short stories/ novellas and films (translated into English) written since mid-1980s that use, each to varying degree, postmodernist techniques to undermine predomniest-Zionist narrar-
tive. Recycling and reexamination of Israeli condition and Zionist condition and skepticism about legitimacy of meta-narratives to redefine blurred outline of Israeli identity and subversive normative myths. They simultaneously display loss of faith in represen-
tative dimension of language, including ability of texts to penetrate to its hidden meaning. Using peripherey discourse, these texts are modernist, aesthetic and power paradigm. P/NP or letter grading.

135. Jewish Law. (5) Lecture, three hours. Intro-
troduction to Jewish law from biblical literature to modern legal systems. Comparison of Jewish legal systems to modern secular systems and discussion of ethical di-
mensions of legal systems. P/NP or letter grading.

140A-140B. American Jewish History. (4–4) Lec-
ture, three hours. Examination of social and cultural history of American Jewish community from its incep-
tion to the present, with emphasis on integration of successive immigrants and development of institu-
tions. P/NP or letter grading. 140A. 1564 to 1914. 140B. 1914 to 1945.

M142. Modern Israel: Politics, Society, Culture. (4) (Same as Middle Eastern Studies M142.) Lecture, three hours. Examination of evolution of Israel—its changing society, volatile domestic and foreign pol-
itics, and dynamic culture—from its foundation in 1948 to present, in context of global political and cultural change and changing Jewish world. Tension between Israel’s conception of itself as the 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 be-
tween Jews and Arabs, secular and religious Jews, and disparate ethnic groups. P/NP or letter grading.

143. Introduction to Jewish Folklore. (4) Lecture, three hours. Nature of Jewish folklore; narrative, folk-
lore, mythology, and oral traditions. Methods and perspec-
tives 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; discussion; one hour. History of Zionism on backdrop of European, world, and Jewish histories from ideological origins to polit-
cal, 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 inde-
pendently for credit. M150A. Literary Traditions of An-
cient Israel: Bible and Apocrypha. (Same as Compara-
tive Literature M150.) Study of literary culture of an-
cient Israel through examination of principal compo-
ositional strategies of Hebrew Bible and Apocry-
pha (read in translation). P/NP or letter grading. M150B. Rabbinic Judaism, Talmud, and Zohar. (Same as Religious Studies M150B.) Historical and critical analysis of rabbinic Judaism; its original literary forms; rabbinic worldview; forms of medieval rabbinic literature; modern Jewish religious movements and their attitude toward rabbinic Judaism. P/NP or letter grading.

M151A-151B. Modern Jewish Literature in English. (4–4) Lecture, three hours. Each course may be taken independently for credit. M151A. Diaspora Literature. (Same as Comparative Literature M151A.) Study of literary responses of Jews to modernity, its challenges, and threats. Readings in texts originally written in English or translated from Hebrew, Yiddish, and modern Yiddish. Analysis of formal aspects of each work. 151B. Israeli Literature. Study of translations from Hebrew lit-
erature written in Israeli and reflecting cardinal facets of Israeli life: social issues, security problems, identity of the state, role of individual. Analysis of formal as-
pects of each work.

M155. Angels, Demons, and End of World: Magic, Mysticism, and Apocalypse in Jewish Traditions. (4) (Same as Religion M155.) Lecture, three hours. Focus on popular Jewish traditions of magic, mysti-
cism, apocalypse, and various contours of Judaism’s textual and material traditions in antiquity. Examination of texts and objects from Hebrew Bible, and later discus-
sions of Kabbalah and end of world, concentrating on Jewish antiquity. Discussion of texts, including He-
brew Bible, Dead Sea Scrolls, extra-biblical Jewish literature, and mystical and apocalyptic literature written in Israel and reflecting cardinal facets of Israeli life: social issues, security problems, identity of the state, role of individual. Analysis of formal aspects of each work.

M162. Israel Seen through Its Literature. (4) (Same as Comparative Literature M162.) Lecture, three hours. Attempt to impart profound understanding of Israel as seen through its literature. Examination of va-
riety of literary texts—stories, novels, and poems—and reading of them in context of their historical back-
grounds. P/NP or letter grading.


175. 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 (S. Yizhar, A.B. Yehoshua, N. Granik, and Yitzhak Ben-Asher). Reading of films and screenplays of novels and short stories. Letter grading.

177. Variable Topics in Jewish 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. Introduction to History and Culture of Irani-
an Jews. (4) (Same as History M178 and Iranian M178.) Lecture, three hours. Introduction to political, intellectual, cultural, and socioeconomic status of Ira-
nian Jews: Exploration of history of Jewish peoples from ancient period through history, with focus on post-Middle Ages to present time. Topics, studied from per- spective of Iranian cultural and intellectual history, in- clude identity and status, religious tolerance versus forced allegiance to indigenous religious, 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. Ex- amination of major issues in Jewish history. May be re- peated for credit. P/NP or letter grading.

M181R. Topics in Jewish History: From Theory to Practice. (4) (Formerly numbered M188SL.) (Same as History M181SL.) Lecture, three hours; fieldwork, two hours. Designed for juniors/seniors. History of Los Angeles, with special emphasis on pivotal roles Jews have played in shaping Los An- geles and role that Los Angeles has played in re- shaping of Jewish identities, communities, and cul- tures. Exploration of themes related to regionalism in American Jewish history, comparative immigration and migration patterns, and frontiers and borderlands, while providing overview of historical methodologies and introduction to analysis of ethical and method- ological implications of writing history in digital age and learning how to read and analyze these new media works as primary and secondary historical texts. This course is designed to contribute to body of historical knowledge work related to Los Angeles Jewish history through re- quired service work with community partners and de- velopment of digital public history projects. P/NP or letter grading.

M182A. Ancient Jewish History. (4) (Same as History M182A and Religion M182A.) Lecture, three hours; discussion, one hour (when scheduled). De- signed for juniors/seniors. Survey of social, political, and religious development of Judaism and the formation of Jewish identity from ancient period throughout history, with focus on post- 1948 events. P/NP or letter grading.

M182B. Medieval Jewish History. (4) (Same as His- tory M182B and Religion M182B.) Lecture, three hours; discussion, one hour (when scheduled). De- signed 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. Survey of early modern Jewish history beginning with enormously repercussive expulsion of Jews from Spain in 1492, followed by transformations in Jewish society from 15th to 20th centuries in Europe and the Near East, and concluding with nationalism. P/NP or letter grading.

M184A. Jewish Civilization: Encounter with Great World Cultures. (4) (Same as History M184A and Re- ligion M184A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of dynamics in millennia-old interaction of Jews with great world cultures. Creative adaptations that have lent Jewish culture its distinct and various forms. P/NP or letter grading.

M184B. History of Anti-Semitism. (4) (Same as His- tory 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.

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 America, both historical and contemporary. P/NP or letter grading.

M184D. History of Zionism and State of Israel. (4) (Same as History M184D.) Lecture, three hours; dis- cussion, one hour (when scheduled). Designed for juniors/seniors. Survey of origins and historical development of Zionism. P/NP or letter grading.


Graduate Course

209. 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. 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 and led by instructor. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Jewish Studies. (4 Seminar, three hours. Research seminar on selected topics. Reading, discussion, and develop- ment of culminating project. May be repeated for credit. P/NP or letter grading.

197. Individual Studies in Jewish Studies. (2 to 4) Individual contract required. P/NP or letter grading. Indivi- dual studies in Jewish studies on selected topics. Reading, discussion, and develop- ment of culminating project. May be repeated for credit. P/NP or letter grading.

199. Directed Research or Senior Project in Jewish Studies. (2 to 4 Tutorial, one hour. 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. Individual contract required. P/NP or letter grading.

Middle Eastern Studies Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar, three 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/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, monolithemism, and urban societ- ies. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) (Same as Ancient Near East M50B and Religion M119B.) Lecture, three hours; discussion, one hour. Ex- amination of three major monotheisms of Western cul- tures—Judaism, Christianity, and Islam—historically and comparatively. Development, teachings, and rituals of each tradition up to and including medi- eval 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 au- thority, and common theological issues such as origin of evil and status of nonbelievers. Letter grading.

M50C. Making and Studying Modern Middle East. (5) (Formerly numbered M50C.) (Same as Anthro- pology M50W.) 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-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. 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 so-called Islamic tombs, tombs of great Islamic scholars and standing remains in central Islamic lands (pri- marily Syria, Egypt, and Iraq), Turkey, Iran, North Af- rica, and Spain. Profound cultural transformations oc- curred from birth of Islamic civilization in early Or- tmanent period in 16th and 17th centuries, which are traceable in material records. Assessment of effective- ness of tools afforded by historical archaeology to aid understanding of past societies. P/NP or letter grading.

M112. Archaeology and Art of Christian and Islam- ic Egypt. (4) (Same as Archaeology M112, Art History M119D, 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, architec- tural 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 perhaps even to present. Survey of archaeological remains and standing archi- tecture 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 and has been shaken by many debates over history, recent and an- cient events, and how these are represented by histor- ical scholarship as well as in popular media and public spaces. Struggles over image of past have become cen- tral (as in many other societies) to debates about identity in present and directions, goals, and hopes for future. Exploration of ways in which struggles over past have shaped Israeli present. Examination of his- toriographical debates and their reflections in range of media to make some sense of ever-changing past, ways in which it shapes political, ideological, and cul- tural 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 memory. Concurrently scheduled with course C222. P/NP or letter grading.

from which these multilateral texts emerged, and to explore major 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. Examination of evolution of Israel—its changing society, volatile domestic and foreign politics, and dynamic culture—from its foundation in 1948 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 instability 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.

M144. Zinism: 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 for origins of 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. 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; discussion, 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, sentence 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 psychosocial environment that permeates and surrounds 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.

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. Involves individual 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.

Graduate Courses

200. Bibliography and Method of Near Eastern Languages and Literatures. (4) Lecture, two hours. Required for PhD candidates in instruction in bibliography. Examination of various areas of specialization offered by department. May be repeated for credit. S/U or letter grading.

201. Study of 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 of number of representative languages from various major branches of Hamito-Semitic (Afro-Asiatic) language family. S/U or letter grading.

222. History, Memory, and Identity in Israel. (4) Seminar, three hours. In effect, 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 historical scholarship as well as in popular media and public spaces. Struggles over image of past have become central (as in many other societies) to debates about identity in present and directions, goals, and hopes for future. Exploration of ways in which struggles over past have shaped Israeli present. Examination of historiographical debates and their reflections in range of media to make some sense of ever-changing past, way it is represented in Israeli literature, and in shaping of Israeli collective memory and identity. Concurrently scheduled with course C122, S/U or letter grading.


290. Seminar: Paleography. (4) Seminar, four 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 illuminating 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 Southeast Asian M20.) Lecture, three hours; discussion, one hour. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and discussion focus on such topics as HLs and HLLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs, 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 (FLs) 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. P/NP grading. Concurrently scheduled with course CM214, 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 Courses

CM114. Teaching and Learning of Heritage Languages. (4) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and discussion focus on such topics as HLs and HLLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs, 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 (FLs) 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. P/NP grading. Concurrently scheduled with course CM214, P/NP or letter grading.

Upper-Division Courses

CM114. Teaching and Learning of Heritage Languages. (4) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and discussion focus on such topics as HLs and HLLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs, 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 (FLs) 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. P/NP grading. Concurrently scheduled with course CM214, P/NP or letter grading.

CM214. Teaching and Learning of Heritage Languages. (4) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and discussion focus on such topics as HLs and HLLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs, 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 (FLs) 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. P/NP grading. Concurrently scheduled with course CM214, P/NP or letter grading.
M248. 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, thalassology, 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 Mediterranean. Letter grading.

M287. Central Asian Studies: Discipline, Methods, Debates. (2) (Same as Anthropology M247Q and History M247Q.) Introduction to study of central Asia as practiced in humanities and social sciences disciplines. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, in two hours. 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 Language and Literature in Near Eastern Languages and Cultures. (2) Seminar, two hours. Problems and methods of presenting literary texts as exemplary materials in teaching literary or language literature in Near Eastern Languages and Cultures. Theory and classroom practice, with individual counseling and faculty evaluation of teaching assistant performances. May not be applied toward MA 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.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Semiotics

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. 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. Individual contract required. P/NP or letter grading.

197. Individual Studies in Semiotics. (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 Semiotics. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Independent research or investigation under guidance of faculty mentor. Culumminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


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.


230. Seminar: Near Eastern 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 Akkadian literary genres; selected problems in literary history and stylistic analysis. May be repeated for credit. S/U or letter grading.

297. Fiat Lux Freshman Seminars. (3) 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. Individual contract required. P/NP or letter grading.


Turkish 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. 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. 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

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.

102A-102B-102C. Advanced Turkish. (4–4–4) Lecture, five hours. Requisites: courses 101A, 101B, 101C. Continuing study of grammar, conversation,
and composition. Readings in modern literature and social science texts. May be repeated for credit. 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 literary and folkloric texts. High-style composition and conversation.

M115A-M115B-M115C. Elementary Azeri. (4-4-4) (Same as Iranian M115A-M115B-M115C.) Lecture, five hours. Knowledge of Russian, Turkish, and Iranian 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.

116A-116B-116C. Advanced Azeri. (4-4-4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: placement test. Proficiency-based course in descriptive Azeri grammar. Reading and analysis of Azeri literary and folkloric texts in new writing system. High-style composition and conversation. May be repeated for credit. Letter grading.

160. Turkish Tradition. (4) Lecture/discussion. Preparation: elementary proficiency in Turkish. Survey of cultural history of the Turks, 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.


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.

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 research and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198. 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. Culumminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

210A. Readings in Ottoman I. (4) Lecture, three hours. Examination of printed texts in Ottoman from 19th and 20th centuries to improve student comprehension to read, translate, and transcribe 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.


Scope and Objectives

The Department of Neurobiology is a premier research department and a leading force in neuroscience science, medicine, and biological science at UCLA. We provide a supportive environment for undergraduate and graduate students to work on a wide range of research topics. At the heart of our department's success is a strong faculty of faculty, including members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP 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, translate, and transcribe Ottoman texts. Readings include selections from newspapers, almanacs, travel books, and literary and historical texts. S/U or letter 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.


Advanced Honors 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.

197. Individual Studies in Neurobiology. (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 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 subject areas appropriate for training of particular students, which includes reading assignments or laboratory work leading to a final oral or written report. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

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


169. 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.

M171. Variable Topics Research Seminars: Contemporary Biology. (2) (Same as Physiological Science M171.) Seminar, two hours. Limited to upper-graduate fellows in Howard Hughes Undergraduate Research Program. Presentations of scientific data from primary research articles and from students’ own research. May be repeated for credit. P/NP grading.

197. Individual Studies in Neurobiology. (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 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 subject areas appropriate for training of particular students, which includes reading assignments or laboratory work leading to a 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 M200A.) 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 M201.) 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 neurotropic factors. Letter grading.

M200C. Sensory Systems Neurobiology. (4) (Same as Neuroscience M221.) Lecture, two hours; discussion, two hours. Fundamental topics in sensory systems neurobiology, including sensory transduction, taste and olfaction, audition, vision, and somatosensory system. Letter grading.

M200F. Cellular Neurophysiology. (4) (Same as Neuroscience M202 and Physiological Science M202.) Lecture, three hours; discussion, two hours. Requires: Physiological Science 111A (or M180A or Physics 5C). Advanced course in cellular physiology of neurons. Action and membrane potentials, channel blockers, gates, ion pumps, and neuronal homeostasis, synaptic receptors, drug–receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M200G. 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. Laboratory focus on learning and memory to provide integrative view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.

220. Structural Neurobiology. (2) Lecture, two hours; discussion, two hours; laboratory, two hours. Introduction to molecular structure of chemical, electrical, and mixed synapses as determined by imaging methods such as electron tomography. Comprehensive review of principles governing synaptic transmission and balanced account of some of most topical areas of field, such as hemifusion, kiss and run, and fast and slow 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. Roundtable discussions provide forum for further inspiration as well as tackling any questions or difficulties that may arise from laboratory 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, microcircuit organization and function of retina, lateral geniculate nucleus, and primary cortical areas mediating visual behavior. S/U or letter 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 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.

296. Research Seminar and Journal Club. (1) Seminar, one hour. Seminar and journal club with focus on current research topics and activities occurring within department. S/U grading.

296A–298B–298C. Advanced Topics in Neurobiology. (2–2–2) Seminar, one hour; discussion, one hour. Advanced seminar courses in neurobiology to be offered by different departmental faculty members. Topics are grouped thematically. S/U grading. 298A. Molecular, Cellular, and Developmental Neurobiology. Letter grading.

298B. Sensory and Motor Systems Neurobiology. 298C. Regulatory, Behavioral, and Cognitive Neurobiology.

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.


Neurology

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 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.


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.

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.

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 neurologi-
NEUROSCIENCE, UNDERGRADUATE

Interdepartmental Undergraduate Program
College of Letters and Science

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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.

Information on the graduate program in this discipline can be found in the Neuroscience graduate interdepartmental program section.

Undergraduate Study

The Neuroscience major is a designated capstone major. Undergraduate students have the option of conducting two terms of independent research within a faculty laboratory or completing an advanced laboratory methods course with a series of research modules. Through their capstone work, students demonstrate ability to generate testable scientific hypotheses and develop a research plan to test such hypotheses; work on research projects independently and in small group settings; evaluate and discuss primary literature and the validity of hypotheses generated by others; communicate effectively orally and in writing; and demonstrate creative thinking.

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, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 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, 1C, 4AAL, and 4BL, or SA, SB, and SC.

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 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

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 133A. Psychology 115 cannot be substituted for Neuroscience M101A; however, Psychological Science 111A can be substituted.

Elective Options: One course from each of the following three options:
- Molecular, Cell, and Developmental Neuroscience: Molecular, Cell, and Developmental Biology 162, Neuroscience M130, M145, C177, 180, 181, 182, 186, M187, 191C, Physics C186, Physiological Science M106, 121, 126, C127, M145, 146, 147, 174, 175, M181, Psychology M117I, 162, or M166.

Capstone Research Options: (1) Neuroscience 101L, (2) Neuroscience C177 and 192C, or (3) Neuroscience 198A and 198B, 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 198B, 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 CPA in the requisite courses for Neuroscience M101A and M101B.
Non-science majors wishing to minor in Neuroscience should be aware that preparation courses in chemistry, life sciences, and physics are requisites 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 to credit students to students with credit for M101A (or Molecular, Cell, and Developmental Biology M175A or Psychological Science M180A or Psychology M117A) or Psychological Science 111A or Psychology 111. (Formerly numbered M123.) General overview and introduction to most exciting and fundamental topics encompassing field of neuroscience. 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. (I) Seminar, three hours. Limited to 20 students. Designed 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 repeated toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (I) Tutorial, three hours. Limited to students in College Honors Program. Designed as an 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; 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

M101A. Cellular and Molecular Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 13A or 30A (14C may be taken concurrently), Life Sciences 2 or 7C, Physics 1B or 1BH or 6B or 5C. 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 Psychological Science 111B. Cellular neurophysiology, membrane potential and synaptic transmission. Sensory systems and motor system; how assemblies of neurons process complex information and control movement. P/NP or letter grading.

M101B. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course M101A (or Molecular, Cell, and Developmental Biology M175A or Psychological Science M180A or Psychology M117A); Neuroscience majors must have grade of C– or better) or Psychological Science 111A or Psychology 115. Life Sciences 3 and 4 (may be taken concurrently), or 7C. Molecular biology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, and muscle. Classical experiments and modern molecular approaches in development and neurobiology. P/NP or letter grading.

M101C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: courses M101A and M101B, Molecular and Developmental Biology M175A or Psychological Science M180A or Psychology M117A; Neuroscience majors must have grade of C– or better) or Psychological Science 111A or Psychology 115. Neurodegenerative and neuropsychiatric disorders, including schizophrenia, depression, bipolar disorder, obsessive/compulsive disorder. Provides basic understanding of brain dysfunctions that contribute to disorders and rationales for pharmacological treatments. P/NP or letter grading.

M135. Dynamical Systems Modeling of Physiological Processes. (5) (Same as Psychological Science M135.) 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 Psychological Science M145.) Lecture, four hours. Requisites: course M101A or Psychological Science 111A or M180A. Examination of central nervous system organization required for production of complex movements and comprehension, mastication, and swallowing. Letter grading.

M161. Personal Brain Management. (4) (Same as Psychiatry M182.) Seminar, four hours. Basic overview of brain function and consideration of some management methods that exist already, and what future may hold. New methods for predicting our own futures and modeling what if scenarios that might alter risks and burdens. Discussion of factors that lead to 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 behavioral habits are and how difficult these can be to change and why. Coverage of series of topics that center on personal enhancement of well-being through consideration of stress management, long-term goal and value motivation, mastery goals and immediate actions, reinforcement learning, meditation, neurofeedback, and time management. Critical approach to help students distinguish scientifically validated procedures. Offered in summer only. Letter grading.

M170. Music and Brain. (4) (Same as Music Industry M103.) Seminar, three hours; outside study, nine hours. Multidisciplinary approach to understanding brain mechanisms mediating 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 harmony perception, rhythm perception, emotion and meaning in music, and creativity. Designed to help students understand methodologies currently used to investigate brain-behavior correlations. Broad understanding of research topics in cognitive neuroscience, one of three main subspecialties of neuroscience; introduction to fundamental principles in neuroanatomy, physiology, psychology, 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.

C172. Neuroimaging and Brain Mapping. (4) Lecture, three hours. Requisites: course M101A (or Molecular, Cell, and Developmental Biology M175A or Psychological Science M180A or Psychology M117A) or Psychological Science 111A or Psychology 115. Strongly recommended: course 102. Theory, methods, applications, assumptions, and limitations of neuroimaging. Techniques, biological questions, and results. Brain structure, brain function, and their insight into functions underlying behavior. For background in science of sleep and circadian rhythms, completion of Psychological Science C126 is highly recommended. Concurrently scheduled with course CM232. Letter grading.

M190. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181, Psychological Science M181, Psychiatry M181, and Psychology M117J) Lecture, three hours. Requisites: course M101A or Molecular, Cell, and Developmental Biology M175A or Psychological Science M180A or Psychology M117A) or Psychological Science 111A or Psychology 115. Underlying brain systems that contribute to psychiatric symptoms, neuropsychiatric disorders, including schizophrenia, depression, bipolar disorder, obsessive/compulsive disorder. Provides basic understanding of brain dysfunctions that contribute to disorders and rationales for pharmacological treatments. P/NP or letter grading.

M154. Human Neuropsychology. (4) (Same as Psychology M119L.) Lecture, three hours. Requisites: courses M101A and M101C (or Psychology 115, Life Sciences 3 and 4; M101A may be taken concurrently). Not open for credit to students with credit for Psychology 116. Introduction to laboratory methods in neuroscience. Laboratory exercises range from molecular, cell biological to behavioral. Hands-on experience with important methodology and experimental approaches in neuroscience. Letter grading.

101L. Neuroscience Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses M101A, M101B (M101B may be taken concurrently). Not open to credit students to students with credit for Psychology 116. Introduction to laboratory methods in neuroscience. Laboratory exercises range from molecular, cell biological to behavioral. Hands-on experience with important methodology and experimental approaches in neuroscience. Letter grading.

102. Introduction to Functional Anatomy of the Central Nervous System. (4) Lecture, three hours; laboratory, one hour. Requisites: Life Sciences 2 or 7C. Corequisite: course M101A. Not open to freshmen. Overview of human nervous system; relation of behavior to neural circuits and subcircuit development; evolution of the human brain from four billion years to the present. Anatomical and functional considerations of brain function and behavior. Letter grading.

102L. Neuroscience Laboratory. (5) Lecture, 10 hours; discussion, 90 minutes. Requisites: courses M101A and M101C (or Psychology 115, Psychology 120A or 120B. Designed for juniors/ seniors. Survey of experimental and clinical human neuropsychology; neural basis of higher cognitive functions. P/NP or letter grading.

1019L. Human Neurophysiology. (4) (Same as Psychology M119L.) 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 neurophysiology; neural basis of higher cognitive functions. P/NP or letter grading.

1019N. Visual System. (4) (Same as Psychology M119N.) Lecture, three hours. Requisite: course M101A (or Molecular, Cell, and Developmental Biology M175A or Psychological Science M180A or Psychology M117A) or Psychological Science 111A or Psychology 115. Ability to image and analyze visual world is truly remarkable feat. Coverage of anatomy and physiology of visual processing from retina to visual cortex through lectures, extensive reading, and discussions. P/NP or letter grading.

CM123. Neurobiology of Sleep. (4) (Formerly numbered M123.) (Same as Psychological Science CM123.) Lecture, discussion, one hour. Requisites: courses M101A and M101B or Psychological Science 111A and 111B or consent of instructor. Detailed look into science of sleep. Cellular and molecular mechanisms underlying multiple 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 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 functions underlying sleep. For background in science of sleep and circadian rhythms, completion of Psychological Science C126 is highly recommended. Concurrently scheduled with course CM232. Letter grading.

Neuroscience, Undergraduate / 641
M176. Auditory Neuroscience of Speech Perception and Vocal Communication. (4) (Same as Psychological Science M176) Lecture, two and one-half hours; laboratory, two and one-half hours; discussion, 90 minutes. Requisite: course M101A or Psychological Science 107. Interdisciplinary approach to understanding how humans and other animals communicate emotion and meaning using sound. Wellness in discussion of systems neuroscience, cognitive neuroscience, psycho-physics, and psycholinguistics. Emphasis on fundamental principles in neurophysiology, neuroanatomy, neuromaging, psychology, and neurology. Letter grading.

C177. Drugs of Abuse: Translational Neurobiology. (4) Lecture, four hours. Requisite: course M101A. Course ranges from synapse to society. Provides intensive didactic on current neuroscientific basis for understanding substance abuse and bends that material with relevant topics such as epidemiology, co-occurring disorders, treatment options, prevention, and public policies, with emphasis on communication of course materials to general public. Concurrently scheduled with course C277. Letter grading.

178. Human Electrocencephalography and Evoked Potentials: Relational 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 electroencephalography (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 Neuronal Development and Disease. (4) Seminar, three hours. Enforced requisite: courses M101A, M101B. Not open for credit to students with credit for course 191B. In-depth study of genetic, molecular, and genomic approaches to studying nervous system development and disease. Overview of current technologies used to generate mouse models for genetic and developmental analysis. Review of techniques for studying development and integration genomic approaches for identifying and characterizing gene(s) involved in these processes. Emphasis on how the study of model organisms is 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. 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. Described for Neuroscience majors. Comprehensive coverage of stem cells of nervous system during development and adulthood, involvement 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.

M187. Neurobiology of Bias and Discrimination. (4) (Same as Psychological Science M106 and Psychology M166). Lecture, four hours. Limited to junior/senior neuroscience, physiological science, and psychology students. Exploration of aspects of mammalian brain function related to context, 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 relevance to public policies and criminal justice system. Letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 191AH. Limited to juniors and 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 corequisite: course 188A. 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.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 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. Honor 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 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 15 units with different contract required. Honor content noted on transcript. Letter grading.

191A-191B-191C. Variable Topics Research Seminar: Neuroscience. (4–4–4) Seminar: Neuroscience. Three topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual contracts may not be repeated for credit. P/NP or letter grading.

191H. Honors Seminars: Neuroscience. (4) Seminar, four hours. Preparation: one statistics course (Statistics 10 or equivalent). Limited to neuroscience honors program students. Instruction in principles of scientific method, ethics, and written and oral communication; critique of current journal articles and research projects. Presentation of individual research. May not be applied toward elective requirements for major. Must be taken during Winter Quarter of academic year that students enroll in courses 198A and 198B. Letter grading.


191AH-191BH. Variable Topics Research Seminar: Neuroscience. (4–4) Seminar, three hours. Topics in one of four 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. 191A. Behavioral and Cognitive Neuroscience. Requisite: course M101A or Physiological Science 111A, 191C, Molecular, Cell, and Developmental Neuroscience. Enforced requisite: course M101B.

19IA-19IB. Variable Topics Research Seminar: Neuroscience. (4) Seminar, one hour; laboratory, three hours; fieldwork, three hours. Preparation: one statistics course (Statistics 10 or equivalent). Limited to neuroscience honors program students. Instruction in principles of scientific method, ethics, and written and oral communication; critique of current journal articles and research projects. Presentation of individual research. May not be applied toward elective requirements for major. Must be taken during Winter Quarter of academic year that students enroll in courses 198A and 198B. Letter grading.

199A. Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum. Requisite: courses 99, M101A. Limited to neuroscience honors program students. Directed independent research involving extensive reading and development of honors thesis or comprehensive project under direct supervision of faculty member. For departmental honors, students must take course 199A, 199B. Maximum of 8 units of courses 199A, 199B may be applied toward major. Individual contract required. In Progress grading (credit to be given only upon completion of course 199B). P/NP grading.

199B. Honors Research in Neuroscience. (4) Tutorial, 12 hours minimum in laboratory. Requisite: course 199A. Continued research and research that culminates in an honors thesis under direction of faculty member. For departmental honors, students must take course 199A. Maximum of 8 units of courses 199A, 199B may be applied toward major. Individual contract required. Letter grading.

199A. Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum. Enforced requisite: 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 member. C Ulminating project or paper required. Maximum of 8 units of courses 199A, 199B, 199A, 199B may be applied toward major. Individual contract required. In Progress grading (credit to be given only upon completion of course 199B). P/NP grading.

199B. Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum. Enforced requisite: course 199A. Directed individual research or investigation under guidance of faculty member. C Ulminating project or paper required. Maximum of 8 units of courses 199A, 199B, 199A, 199B may be applied toward major. Individual contract required. Letter grading.

199C. Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum in laboratory. Enforced requisite: course 199A. Directed individual research or investigation under guidance of faculty member. C Ulminating project or paper required. Maximum of 8 units of courses 199A, 199B, 199A, 199B may be applied toward major. Individual contract required. Letter grading.
degrees 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.

**NEUROSCIENCE, GRADUATE**

**Interdepartmental Graduate Program**

David Geffen School of Medicine

1329 Conda Center
Box 951761
Los Angeles, CA 90095-1761

Neuroscience Graduate IDP

310-825-8153

Program e-mail: NeuroscienceGraduate@mednet.ucla.edu

Felix E. Schweizer, PhD, Chair
Thomas J. O’Dell, PhD, Vice Chair

Faculty Committee

**Faculty Committee**

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Paul E. Micevych, PhD (Neurobiology)
Thomas J. O’Dell, PhD (Pharmacology)
Alvaro Sagasti, PhD (Molecular, Cell, and Developmental Biology)
Felix E. Schweizer, PhD (Neurobiology)
Stephanie A. White, PhD (Biological and Biomedical Sciences)

**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 face to face, in small groups. Credits vary with topics. S/U grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research 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**

M201. Cell, Developmental, and Molecular Neurobiology. (8) Same as Neurobiology M200B. Lecture, six hours. Fundamental topics concerning cellular, developmental, and molecular neurobiology, including intracellular signaling, cell-cell communication, neuronal gene expression and synthesis, synaptic formation and elimination, programmed neuronal death, and neurotrophic factors. Letter grading.

M202. Cellular Neurophysiology. (4) Same as Neurobiology M200F and Physiological Science M202F. Lecture, three hours; discussion, two hours. Requisites: Physiological Science 111A (or M180A or Physics SC), 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.

M203. Anatomy of Central Nervous System. (4) Same as Bioengineering M263S. Lecture, 75 minutes; discussion/laboratory, two hours. Prior to first laboratory meeting, students must complete Bloodborne Pathogens training course through UCLA Environment, Health and Safety. Study of anatomical locations and relationships between ascending and descending sensory 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. Letter grading.

M204. Synapses, Cells, and Circuits. (4) Same as Neurobiology M200A. 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.

205. Systems Neuroscience. (4) Lecture/discussion, four hours. Introduction to fundamentals of systems neuroscience, with emphasis on integration of molecular, cellular mechanisms, cellular processes, anatomical circuits, and behavioral analysis to understand function of neural systems. Letter grading.

M206. Neuroengineering. (4) Same as Bioengineering M280L and Electrical and Computer Engineering M255S. Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 18 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, ECOG), 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. Debate on 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.

210A-210B-210C. Introduction to Current Literature in Neuroscience. (2-2-2) Discussion, two hours. Critical discussion of current research literature related to topics of the five core courses in neuroscience graduate curriculum. SU 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 M200G and Psychology M200B. Lecture, four hours. Molecular, cellular, circuit, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.

M221. Sensory Systems Neurobiology. (4) Same as Neurobiology M200C. Lecture, two hours; discussion, two hours. Fundamental topics in sensory systems neurobiology, including sensory transduction, taste and olfaction, audition, vision, and somatosensory system. Letter grading.

CM223. Neurobiology of Sleep. (4) Same as Physiology M223S. 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 regulation 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 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.

M230. Molecular and Cellular Mechanisms of Neural Integration. (5) Same as Physiology Science M210 and Physiology M210L. Lecture, four hours; discussion, one hour. Requisite: course M202. Introduction to mechanisms of synaptic processing. Selected
problems of current interest, in vivo, in vitro, and in situ methods for determining the internal and physiological state of cells and subcellular organelles, and measurement of neurotransmitter 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.


240. Phosphorylation 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 phenotype expression 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 on basis 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 Neuroscience. (4) Lecture, four hours. Four-light-microscopy-based approaches in neuroscience. Background material on basic optical principles and microscope design, as well as certification in use of lasers. Technical approaches commonly used in study of nervous system, including imaging modalities such as two-photon microscopy, methods for imaging and stimulating neuronal activity, and advanced microscopy approaches such as FRET and super-resolution imaging.

250. Neural Development and Repair. (4) Lecture, four hours. Specific training in neural development and repair. Each module offers different research topic and provides perspective on its relevance to 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 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. S/U or letter grading.

260. Introduction to Signal Processing for Neuroscientists. (4) Lecture, four hours. Limited to Neuroscience graduate students. Introductory principles for handling some common types of time-varying data used to measure brain activity (spikes, local field potentials, calcium transients). Analysis of data with simple computer scripts for team-based projects. May not be repeated for credit. Letter grading.


M273. Neural Basis of Memory. (4) (Same as Psychiatry M270) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurological data integrated into models for how behavioral phenomena of memory arise (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 hypothalamus, 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, meninges, 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.

264A. Electroencephalography Methods and Analysis I. (4) Lecture, four hours. Recommended preparation: one term of graduate level statistics, biostatistics. Understanding of neural origins of electroencephalographic (EEG) signals in context of current issues. Students identify neural and non-neural sources of EEG signals, 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.

268A. Electroencephalography Methods and Analysis II. (4) Lecture, three hours. Requisites: course 268A. Recommended preparation: one term of graduate level statistics, biostatistics. Development of expertise in interpretation of electroencephalographic (EEG) signals in context of current issues. Students identify neural and non-neural sources of EEG signals, 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.


286A. Recomputing the Brain: New Methods and Applications. (3) (Same as Bioengineering M284, Biophysics in Medicine M285, Psychiatry M285, and Psychology M278) Lecture, three hours. In-depth examination of imaging methods, including fMRI and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Strong 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.

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Scope and Objectives
A strong scientific basis underlies the teaching of nursing practice, leadership, and research. Related clinical experiences are arranged within the Reagan UCLA Medical Center, its affiliates, or in selected community sites. At the bachelor’s level, nurses are prepared as 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, and social, environmental, 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 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 research 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.

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, 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 in community- and hospital-based settings.

Effective participation in professional and community organizations and interest groups relevant to health care delivery and modification of
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, cultural competence, and human diversity. Introduction to 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. 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, and political forces in relation to paternalism for professional nurses working with diverse patient populations in the 21st century. Letter grading.

50. Fundamentals of Epidemiology (4) Lecture, three hours; laboratory, three hours. Epidemiology focuses on distribution and determinants of health-related states or events in specified populations. Fundamentally, epidemiology seeks to control health problems in communities and institutions. Letter grading.

54A. Pathophysiology I. (3) Lecture, three hours. Requisites: courses 3, 13 taken within past three years. Designed to provide students with basic understanding of pathophysiological changes that occur within internal environment of individual. Concepts underlie pathologic changes across all body systems are presented. Understanding these alterations is basic to providing quality nursing care. System variations across lifespan are addressed. Letter grading.

54B. Pathophysiology II. (2) Lecture, two hours. Requisite: course 54A. Designed to provide students with understanding of pathophysiological changes that occur at cellular, tissue, and organ level across selected body systems within internal environment of individual. Presence of dysfunction or disease of selected components is provided as rationale for nursing diagnosis and therapeutic interventions. 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

105. Human Physiology. (4) Lecture, three hours; discussion, one hour. Designed for nursing students. Lecture and discussion, with emphasis on a correlative approach to anatomy and physiology of human body. P/NP or letter grading.

115. Pharmacology and Therapeutics. (5) Lecture, four hours. Requisites: courses 54A, 54B. Clinical pharmacology for undergraduate nursing students, beginning with emphasis on basic pharmacologic principles. Focus on major drug classes and their mechanism of action, pharmacokinetics, adverse effects, and clinical issues. Letter grading.

150A. Fundamentals of Professional Nursing I. (4) Lecture, three hours; laboratory, three hours. Requisites: courses 10, 20, 54A. Focuses on theoretical foundations of primary, secondary, and tertiary prevention as they relate to nursing care management in acute care settings for Nursing BS students. Emphasis is on application of relevant theories to Nursing BS practice roles in health care systems through case study examples, with focus on application to clinical practice settings that include culturally diverse populations. Concepts of communication, nursing process as a clinical decision-making strategy, and critical thinking skills are introduced as essential to practice of professional nursing. Learning experiences in nursing skills laboratory and in clinical settings are integrated. Introductory to mathematics calculations and terminology used in clinical setting. Letter grading.

150B. Fundamentals of Professional Nursing II. (4) Lecture, three hours; laboratory, three hours. Requisites: courses 150A, 152A, 152B, 174. Continuation of course 150A. Expansion of student knowledge on practice of professional nursing as theory-based goal-directed method for assisting patients to meet basic human needs at various levels of health continua. Concepts of communication, interdisciplinary collaboration and communication, interpersonal relationships, cultural competence, and care of patients with critical thinking skills as clinical decision-making strategies essential to practice of professional nursing. Characteristics and roles of professional nursing. Development of caregiver, teacher, and collaborator roles in learning experiences in nursing skills laboratory and in clinical settings. Continued work on mathematical calculations and terminology with addition of intravenous (IV) drip medication calculations used in clinical setting. Letter grading.

152A. Health Promotion: Growth and Development in Culturally Diverse Populations. (2) Formerly numbered 152W) Lecture, two hours. Introduction to primary prevention strategies as they pertain to health
and wellness across lifespan, using population-based approaches to nursing care of diverse populations. Priorities in growth and development and 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; elderly who live independently in communities or within institutions. Analysis of influence of overarching political, societal, and governmental forces. Letter grading.


C155. Global Health Elective: Globalization, Social Justice, and Human Rights. (3) Seminar, two hours. Exploration of the social, political, and psychological factors that impact on world, reflect on how globalization shapes and transforms these factors. Students communicate these topics with peers around classroom, via Internet and other technologies, and in other classrooms located around globe. Students, through collaborative projects with peers around world, develop their own understanding of how globalization shapes and transforms local communities and national cultures. Concurrently scheduled with course C255. Letter grading.

160. Secondary Prevention. (4) Lecture, four hours. Requisites: courses 150A, 150B, 152A, 152B. Screening for early detection of illness to prevent chronic or acutely deteriorating illness. Expanding on concepts of health and human development and using nursing process, application of nursing role in providing care to individuals and their families to screen, diagnose, and treat illness at earliest possible time to prevent disability or premature mortality. Examination of health problems of individuals within context of family, social and community systems, and interdisciplinary healthcare systems. Emphasis on differences in developmental stages in response to screening for early and late signs and symptoms of illness in ambulatory care settings, community agencies, and rehabilitation units, outpatient specialty clinics and surgical units, and home and community settings. Letter grading.


162A. Foundational Concepts for Tertiary Prevention and Care of Medical-Surgical Patients and Families. (4) Lecture, five hours; clinical, one hour. Requisites: courses 54A, 54B, 150A. Corequisites: courses 115, 150B. Examination of nursing assessment and management of common health problems that may require hospitalization. Theory content includes clinical assessment, health history, and diagnostic reasoning for selected acute and chronic problems with emphasis on physical, psychological, and developmental influences. Integration of basic knowledge of pathophysiology, stress and adaptation, adult development theory, therapeutic interventions, and communication concepts as applied to care of medical and surgical patients and their families. Emphasis on concept of nurse as nurse scientist with critical and contextual thinking skills and diagnostic reasoning. Letter grading.

162B. Tertiary Prevention and Care of Medical-Surgical Patients and Families. (6) Lecture, four hours; clinical, six hours. Requisites: course 162A. Pathophysiology and diagnostic approaches to management for selected acute and emergent problems of adult patients with complex illness, including multifaceted assessment, health history, and diagnostic reasoning skills, and emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, patient safety, and communication concepts as applied to care of medical and surgical patients. Supervised practicum experience within settings of multidisciplinary teams directing care of medical-surgical patients in acute and critical care settings. Supervised assessment, planning, implementation, and evaluation of course of care for patients, both as individuals and cohorts, in acute, intermediate, and long-term care settings. Emphasis on clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for children, women, and families. Emphasis on critical-thinking processes to improve patient safety, quality, and health outcomes. Supervised practicum experience within settings of multidisciplinary teams directing care of medical-surgical patients in diagnostic and therapeutic modalities that promote effective acute critical care assessment, critical reasoning, prompt intervention, and outcome achievement with fluid re-planning for rapidly changing disease conditions. Letter grading.

163. Nursing Care of Geriatric Patients and Families. (3) Lecture, two hours; clinical, one hour. Requisite: course 162A. Addresses prevention and management of acute and 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 with emphasis on psychosocial, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, stress and adaptation, adult development theory, therapeutic interventions, and communication concepts as applied to care of older adult patients and their families. Emphasis on the concept of nurse as nurse scientist with critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical research, evidenced-based practice, and practice with emphasis on patient safety and quality care for older adults are employed during clinical experiences. Letter grading.

164. Maternity Nursing. (5) Lecture, three hours; clinical, six hours. Requisites: courses 160, 160B. Nursing assessment and management of normal and short-term gestation, and care of patients with emergent problems in maternity/newborn patients, with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, and communication concepts as applied to childbearing families with application of nursing process, evidenced-based practice, problem-solving strategies, and critical thinking. Supervised clinical practicum experience within setting of multidisciplinary teams, with focus on clinical reasoning in interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating nursing care for maternity/newborn patients. Integration of level assessment, planning, and management of symptoms in this population. Letter grading.

165. Pediatric Nursing. (5) Lecture, three hours; clinical, six hours. Requisites: courses 160, 162B. Nursing assessment and management of acute and 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, evidenced-based practice, and problem-solving and critical-thinking strategies to improve patient safety, quality, and health outcomes. Supervised practicum experience within settings of multidisciplinary teams directing care of medical-surgical patients in diagnostic and therapeutic modalities that promote effectiveacute critical care assessment, critical reasoning, prompt intervention, and outcome achievement with fluid re-planning for rapidly changing disease conditions. Letter grading.


167. Nursing Care of Cardiac Patients and Families. (3) Lecture, two hours; clinical, three hours. Requisites: courses 161, 162, 162B. Cardiac assessment and diagnosis, and interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohabitants. Emphasis on patient safety and quality improvement, accreditation and patient safety data collection, and evidence-based practice in analysis of revascularization procedures and outcomes in cardiac surgical patients. 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 on developing leadership skills, integration of critical thinking, and professional practice in application of research, evidenced-based practice, and leadership-management skills of patient-centered care as transition is made from student role to that of practicing professional nurse. Focus placed on preparation for National Council Licensure Examination (NCLEX). Letter 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 approaches 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 health nursing care systems and interventions including health departments, health policy institutions, and public service agencies. Clinical practicum activities include health promotion and disease prevention at level of individuals, families, communities, and systems, both domestically and globally. Letter grading.

173W. Introduction to Nursing Research and Writing II. (5) (Formerly numbered 173.) Lecture, five hours. Requisites: English Composition 3. Introduction to planning research project based on single question. Review of components of research activities: specific aims and study purposes, variables definition, study design, data collection instruments, data analyses, 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
200. Health Promotion and Assessment across Life Span. (4) Course, four hours. Preparation: 4 units of nursing science. Examination of major methodologies that guide qualitative research in relation to various strategies for data collection (interviews, participant observation, guided interaction, or other techniques). Content discussed in terms of clinical nursing research and application to clinical settings. Letter grading.

205A. Introduction to Qualitative Methods in Research. (4) Lecture, four hours. Requisite: course 203A. Use of multiple linear regression, in- cluded are descriptive analysis of variance, correlation techniques, and regression. Sample size calculations, parametric versus nonparametric tests, and concepts of database design, management using statistical software packages. Letter grading.

210B. State of Science in Nursing: Critical Synthesis of Literature. (Formerly numbered 210.) Lecture, three hours. Requisite: doctoral standing or consent of instructor. In-depth examination of state of science in nursing, biologic, vulnerable populations, and biobehavioral research topics. Students explore research on particular phenomena, analyze current and historical scholarly findings, critique significance of focus on this phenomenon for nursing science, identify crucial and meaningful gaps in knowledge through systematic review of research literature, and provide recommendations for future nursing science and scholarship relevant to research area. Students broaden exploration and analysis of identified gaps in current knowledge through advancing systematic review, critique, and synthesis of research literature. Letter grading.

211. Women's Health Primary Care. (2 to 4) Lecture, four hours. Adult/gerontology primary care of women during reproductive years. 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. 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. Advanced role of the nurse practitioner professional role, including care for workers and high-risk environmental groups. Letter grading.

214. Seminar: Advanced Concepts in Oncology Nursing. (4) Seminar, four hours. Designed for adult/gerontology acute care, gerontology, and family nurse practitioners and clinical nurse specialists. Comprehensive overview of oncologic care. Advanced practice nursing, with emphasis on theories and research related to prevention, detection, health history/risk as-

Graduate Courses


201. Health-Related Quality of Life. (2) Lecture, two hours. Theoretical foundations of health-related quality of life as an outcome of disease, treatment, and style of care. Analysis of meaning, dimensions, predictors, measures, ethical dilemmas, cultural diversity issues, and biobehavioral foundations of health-related quality of life. Letter grading.

220. Philosophy of Nursing Science. (4) Lecture, four hours. Review and discussion of nursing science by exploring genealogies of thought that underpin epistemological assumptions about knowledge. Examination of philosophical concepts that shape discipline of nursing in relation to their influence on scientific reasoning and methods of inquiry, 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 course in statistics. Introduction to statistical analysis, including descriptive analysis of variance, correlation techniques, and regression. Sample size calculations, parametric versus nonparametric tests, and concepts of database design, management using statistical software packages. Letter grading.

203B. Statistical Approaches for Complex Nursing Phenomena. (4) Lecture, four hours. Requisite: course 203A. Use of multiple linear regression, included are descriptive analysis of variance, correlation techniques, and regression. Sample size calculations, parametric versus nonparametric tests, and concepts of database design, management using statistical software packages. Letter grading.

204. Research Design and Critique. (4) Lecture, 90 minutes; discussion, 90 minutes. Complex research designs and analysis of multiple variables and research utilization. Emphasis on techniques for control of variables, data analysis, and interpretation of results. Both analysis of interrelationship of theoretical frameworks, design, sample selection, data collection instruments, and data analysis techniques. Content discussed in terms of clinical nursing research and application to clinical settings. Letter grading.

205A. Introduction to Qualitative Methods in Research. (4) Lecture, four hours. Requisite: course 203A. Use of multiple linear regression, included are descriptive analysis of variance, correlation techniques, and regression. Sample size calculations, parametric versus nonparametric tests, and concepts of database design, management using statistical software packages. Letter grading.

205B. Advanced Qualitative Research: Grounded Theory Methodology I. (4) Lecture, four hours. Requisite: course 205A or equivalent approved by instructor. Students design and implement qualitative project study based on grounded theory methodology. Symbolic interactionism and constructivism as foundation with grounded theory as guide to recruit small sample, collect data through interviews and observations, and simultaneously analyze data through inductive coding and memoraanda writing. Employment of constant comparison and examination of key elements of self-reflexivity and research ethics. Letter grading.

205C. Advanced Qualitative Research: Grounded Theory Methodology II. (4) Lecture, four hours. Requisites: courses 205A, 205B, or equivalent as approved by instructor. Advanced techniques for simul- taneous collection and analysis of qualitative data. Employment of advanced levels of coding based on constructivist grounded theory methodology and situational analysis. Development of conceptual formulation (or grounded theory) based on pilot project data collected and analyzed as part of course. Letter grading.

206A. Nursing Concept Development. (2) Lecture, two hours. Requisites: course 202 or philosophy of science (may be taken concurrently), four units of nursing theory. Examination of history of conceptual and theoretical thinking in nursing and contextual issues that continue to influence development of nursing knowledge. Letter grading. Letter grading.


207. Qualitative Research Designs of Clinical Phenomena. (2) Lecture, two hours; discussion, one hour. Requisites: courses 202, 206A, 210A, 210B, Biostatistics 100B. Introduction to wide array of quantita- tive research study designs. In-depth examination of theoretical interaction between research question and process and theoretical approaches to experimental- and many quasi-experimental- and non-experimental- study designs. Examination of potential threats to valid- ity and other design concerns that are associated with research-study designs. 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 belief systems associated with diverse orien- tations related to ethnicity and gender. Provides conceptual base that nurses can use in clinical prac- tice, research, teaching, and administration. Letter grading.

210A. Critical Review of State of Science in Nurs- ing Research. (3) Lecture, three hours. Requisite: doctoral standing or consent of instructor. In-depth exploration of state of science in nursing, bio- logical, vulnerable populations, and biobehavioral re- search topics. Students explore research on particular phenomena, analyze current and historical scholarly findings, critique significance of focus on this phenomenon for nursing science, identify crucial and meaningful gaps in knowledge through systemat- ical review of research literature, and provide recommen- dations for future nursing science and scholarship relevant to research area. Students broaden exploration and analysis of identified gaps in current knowledge through advancing systematic review, critique, and synthesis of research literature. Letter grading.

210B. State of Science in Nursing: Critical Synthe- sis of Literature. (3) Formerly numbered 210.) Lec- ture, three hours. Requisite: doctoral standing or con- sent of instructor. In-depth analysis of published re- search relevant for health service, biological, vulner- able populations, and biobehavioral topics. Students critically analyze and refine understanding of state of science and scholarship relevant to research area. Students broaden exploration and analysis of identified gaps in current knowledge through advancing systematic re- view, critique, and synthesis of research literature. Letter grading.

211. Women's Health Primary Care. (2 to 4) Lecture, three hours; discussion, one hour. Theory and re- search on assessment and management of women's health issues during reproductive years. 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 re- lated to contemporary family structure and func- tioning. Family is defined broadly to include nontraditional families; con- sideration of cross-cultural views of families as well. Identification of limitations of current theory and re- search related to family structure and applicability of cur- rent knowledge to various problems encountered in care of families. Letter grading.

213. Worker Health and Safety: Role and Theory. (4) Lecture, four hours. Advanced role of the nurse practitioner professional role, including care for workers and high-risk environmental groups. Letter grading.

214. Seminar: Advanced Concepts in Oncology Nursing. (4) Seminar, four hours. Designed for adult/ gerontology acute care, gerontology, and family nurse practitioners and clinical nurse specialists. Compre- hensive overview of oncologic care. Advanced prac- tice nursing, with emphasis on theories and research related to prevention, detection, health history/risk ass-
216A-216B. Adult/Gerontology Concepts for Advanced Practice Registered Nurses in Acute Care I, II. (4 each) Lecture, four hours. Requisites: courses 200, 231. Corequisite for course 216A: course 224. Course 216A is requisite to 216B, which is requisite to 216C. Assessment and management of health problems affecting adult/gerontology population from late adolescence to senescence in acute care settings. Synthesis of knowledge from advanced courses in pathophysiology, pharmacotherapeutics, health promotion, and evidence-based psychosocial care and cultural constraints. Letter grading.

218A-218B. Nursing Administration Theory. (4 each) Lecture, four hours. Letter grading.

218A. (4) Lecture, four hours. Synthesis and evaluation of theories in leadership and management of healthcare organizations, with emphasis on organizational structure, processes, and outcomes. Letter grading.


218C. (4) Lecture, four hours. Requisite: course 218B. Projected use of information technology, organizational communication, governance, development and change, 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.


219A. Management of Accounting and Budgeting in Healthcare Organizations. (4) Lecture, four hours. Theories of management, organization, and administration presented in relation to techniques of accounting, budgeting, finance, and healthcare economics. Focus on definition of terms and concepts, followed by practical applications within variety of healthcare settings. Letter grading.


220. Theories of Instruction and Learning in Nursing. (3) Lecture. Theories of learning, curriculum and program development, and principles and techniques of evaluation. Examination of educator role of advanced practice nurse in variety of settings and with diverse cultural and social groups. Opportunities provided for skill development in use of computer-based information systems and development of instructional aids. Letter grading.

221. Qualitative Research Design and Methodology for American Indian Communities. (Same as American Indian Studies M202 and Health Policy and Management M202.) Seminar, three hours. Introduction to some key theoretical themes in American Indian studies and exploration of methods that can be used to incorporate them in research on American Indian cultures, societies, languages, and other issues. Quantitative methods (design, appropriate use), with emphasis on qualitative research methods, ethics, and special considerations in conducting research in American Indian country. Design of research and exploration of feasibility of researching topics. Letter grading.


225A-225B. Advanced Pharmacology I, II. (3–2) Lecture, three hours (course 225A) and two hours (course 225B) combined. Corequisites to courses 225A and 225B. Emphasizes basic pharmacological principles in addition to clinical knowledge and skills necessary for patient-centered care with stable acute or chronic conditions. Focus on major drug classes, the mechanisms of action, pharmacokinetics, indications, and adverse effects. Discussion of quality and safety of pharmaceutical interventions in clinical practice, with emphasis on the role of pharmacists, nurses, and other health professionals. (e.g.: nurses, physicians, pharmacists) and evidence-based practice (e.g. current guidelines). Letter grading.

226. Seminar: Aging Research. (1 to 2) Seminar, two hours. Preparation: completion of course work. Examination of conceptualization of gerontological nursing concepts within context of specialty areas of research (acute care, gerontology, occupational health, and gerontological nursing). Focus on opportunity for students to integrate gerontological nursing concepts into their evolving dissertation research 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 203. Identification of unique content related to minority older women and related to transliterate transcultural Assessment Model. Examination of transcultural nursing viewed as culturally competent practice that is both client centered and research focused. Examination of difference between the gerontocentric lens and geroethnic lens when providing nursing 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 variety of healthcare settings. Study designs for conducting research, issues surrounding informed consent of minority elders, and data collection techniques, including, interviews, and use of longitudinal and long-term care settings, behavioral observations, interviews, and surveys. Letter grading.

228. Research Methods for Aging Populations. (4) Lecture, three hours. Requisites: courses 204, 205A, 207. Corequisite: course 208. In-depth examination of issues related to conducting research with elders in variety of healthcare settings. Study designs for conducting research, findings of randomized and controlled research settings, issues surrounding informed consent, planning for mortality and morbidity, data collection techniques for frail elders, including use of assessment tools using cross-cultural techniques, and behavioral observations, interviews, and surveys, and statistical analysis techniques related to missing data, longitudinal data analysis, clustering, and repeated measures. Letter grading.

229A-229B-229C. 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, law, and personal bias. Topics include legal, political, and moral aspects of medical assisted suicide and abortion; economics and cultural considerations involved in end of life decision making; and personal and professional interpretation of what constitutes conflict of interest. Emphasis is placed on how decisions are influenced by context of care (system-based practice) and emotional responses and preferences (professionalism). S/U 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 pathophysiological processes that underlie human illness and disease, and all systems including cellular adaption, fluid and electrolyte balance, acid-base balance, immunity, inflammation, infection, wound healing, genetics, neoplasms, temperature regulation, somatosensory and pain processing, stress and disease, and activity and fatigue regulation. Detailed study and analysis of manifestations of, and responses to, processes of cellular and molecular pathology at extracellular, systemic and human levels. Letter grading.

230B. Advanced Pathophysiology II. (2) Lecture, two hours. Requisite: course 230A. In-depth examination of pathophysiological processes that underlie human illness and disease, with detailed study of these in major body systems. Examination of manifestations of, and responses to, processes of cellular and molecular pathology at extracellular, systemic and human levels. Letter grading.

231. Advanced Pathophysiology for Advanced Practice Registered Nurses. (4) Lecture, four hours. In-depth examination of pathophysiological processes that underlie human illness 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, systemic and human levels. Letter grading.

232. Human Responses to Aging and Chronic Illness. (2 or 4) Lecture/discussion, four hours. Pathophysiological concepts and nursing management of older populations who are healthy, disabled, and/or chronically ill older adults, addressing pathophysiological aspects of common health problems. Implications for advanced practice registered nursing. Letter grading.

233. Human Responses to Aging and Chronic Illness. (2 or 4) Lecture/discussion, four hours. Biopsychosocial concepts and nursing management of healthy, disabled, and/or chronically ill older adults, addressing pathophysiological aspects of common health problems. Implications for advanced practice registered nursing. Letter grading.

234. Pediatric Primary Care for Family Nurse Practitioners. (4) Lecture, four hours. Requisite: course 200. Preparation of family 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 and children ages 0 through 220. Theories of development and behavioral effects, and adolecents in primary healthcare settings. Presentation of condition or disease, etiology and incidence, clinical findings, differential diagnosis, pharmacologic and treatment management, complications, and preventive and patient education measures. Examination of primary care health delivery model reliant on evidence-based knowledge, practice protocols, consultation, referral, and community resources. Letter grading.

235. Assessment and Management in Pediatric Primary Care. (4) Lecture, four hours. Requisite: course 234. And Pediatric Primary Care for Family Nurse Practitioners. Letter grading.
238B. Assessment and Management in Pediatric Chronic Care. (4) Lecture, four hours. Requisite: course 238A. Assessment, diagnosis, and management of common pediatric illnesses. Demonstration of application and evaluation of evidence-based research and clinical guidelines in pediatric population. Letter grading.

238C. Assessment and Management in Pediatric Healthcare III. (4) Lecture, four hours. Requisite: course 238B. Assessment, diagnosis, and management of chronic and acute pediatric illnesses. Demonstration of systematic barriers within healthcare settings that limit access to those in greatest need of culturally appropriate interventions. Unmet healthcare needs are often related to health disparities and marginalized populations. Analysis of current evidence-based strategies and guidelines in the U.S. for the prevention, diagnosis, and treatment of chronic illnesses. Letter grading.

250. Ethical Issues, Social Justice, and History of Nursing. (3) Lecture, five hours. Interplay of social, economic, cultural, legal, and political forces in the healthcare delivery system. Discussion of roles and responsibilities of nurses in contemporary society today. Analysis situated within context of history of nursing, with emphasis on human rights, civil rights, and patient rights. Discussion of evolution of professional nursing within healthcare systems. Letter grading.

252A. Health Promotion: Growth and Development in Nursing. (2) Lecture, two hours. Introduction to primary prevention strategies as they pertain to health and wellness across lifespan, using population-based approaches to diverse populations. Discussion of strategies for today's nurse to recognize and advocate for individuals and communities or within institutions. Analysis of influence of overarching political, societal, and governmental systems within U.S. Letter grading.


254A. Theoretical Foundations of MSN/MECDN Role and Fundamentals of Professional Nursing Lecture/Clinical Skills Practicum I. (4) Lecture, three hours; laboratory, four hours. Theoretical foundations of primary, secondary, and tertiary prevention as they relate to nursing care management in acute care settings for master's entry clinical nurse (MECDN) role. Discussion of relevant elements of MECDN practice roles in health care systems through case study analysis, with focus on application to clinical practice settings that include culturally diverse populations. Introduction to concepts of communication, nursing process as clinical decision-making strategy, and critical thinking skills as essential to practice of professional nursing. Learning experiences in nursing skills laboratory and in clinical settings. Introduction to mathematical calculations and terminology used in clinical setting. Letter grading.

254B. Theoretical Foundations of MSN/MECDN Role and Fundamentals of Professional Nursing Lecture/Clinical Skills Practicum II. (4) Lecture, three hours; laboratory, three hours. Enforced requisite course 254A. Expansion of student knowledge of practice of professional nursing as theory-based goal-directed method for coordinating care of 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 (MECDN) practice roles in healthcare systems. Discussion of planning, organizing, implementing, and evaluating strategies for professional nursing. Learning experiences in nursing skills laboratory and in clinical settings. Letter grading.

255S. Global Health Elective: Globalization, Social Justice, and Human Rights. (3) Seminar, two hours. Exploration of theories, issues, debates, and pedagogies associated with globalization, social justice, and human rights and how these perspectives influence human health and well-being. Provides students with unique opportunity to explore these topics within classroom, via Internet and other technologies, and in other classrooms located around globe. Students, collaborative research questions, and service around world, reflect on how globalization shapes and transforms local communities and national cultures. Concurrently scheduled with course C155. Letter grading.

260. Security and Prevention of Violence. (2) Lecture, four hours. Requisites: courses 252A, 252B. Review of theories and evidence-based 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, community, health care systems factors, social environmental systems, and personal factors influencing screening and resulting health decisions in order to adapt plans for care. Nursing interventions for promoting screening address barriers and facilitators, as well as resource and structural issues and supportive strategies tailored to populations. Discussion and application of specific micro-level factors including screening for physical health and mental health disorders along with associated behavioral factors and macro-level, built environment influences. Letter grading.

264. Professional Role Issues in Advanced Practice Registered Nursing. (3) Lecture, three hours. Requirements: courses 415A or 438A. Examination of advanced practice roles in organizational, legal, ethical, and healthcare policy issues in relation to delivery of healthcare services by advanced practice registered nurses in evolving healthcare systems. Letter grading.

266. Healthcare Systems/Organizations. (3) Lecture, three hours. Analysis of evolving healthcare delivery systems in terms of effects of policy, economic factors, structure and financing of organizations, characteristics of patients/populations, and services provided, all of which shape reform in relation to role and practice of clinical nurse leaders. Letter grading.


cussion of concepts including improving process performance, efficient use of fiscal resources, quality improvement, and patient-population quality practice at organizational level. Review of methods to improve patient-care outcomes such as organizational support, effective teamwork, and quality improvement. Emphasis on quality management, patient safety, mitigating challenges of adverse outcomes, evidence-based practice, cost-effective decision making, resource management, and quality improvement. Schedule of Classes for topics to be offered in specific term. May be repeated for credit. S/U or letter grading.

292B Nursing Research: Mentorship. (1) Seminar/discussion, one hour; research/laboratory, three hours. Requires: courses 202, 205A, 206A, 206B, 207, 208, 210A, 210B, 295A, Biostatistics 100A, 210A. Special topics course for doctoral students who have completed research 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. Seminar and research/laboratory-based experiences to assist students to prepare for careers as scientists, with focus on research methodology and mentorship. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Teaching apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for course at UCLA. May be repeated for credit. S/U grading.


402. Clinical Scholarship for Evidence-Based Practice. (3) Seminar, three hours. Requisite: courses 202, 205A, 206A, 210A, 210B, 295A, Biostatistics 100B. Development and implementation of research (RFPs) from federal or state level and non-NRSA or similar award. Discussion of requirements and strategies to enhance evidence-based practice. Letter grading.

403. Nursing Education Seminar. (2) Seminar, to be arranged. Development and implementation of research (RFPs) from federal or state level and non-NRSA or similar award. Discussion of requirements and strategies to enhance evidence-based practice. Letter grading.

404. Analytical Methods for Evidence-Based Practice. (2) Seminar/laboratory, three hours. Requisite: course 414B. Students evaluate the role of epidemiology, biostatistics, and critical thinking to nurses on bedside/clinical setting to assess clinical outcomes and processes to prepare DNP graduates to assume leadership roles. Letter grading.

405. Communication and Ethics for DNP Practice. (3) Seminar, three hours. Letter grading. Focus on communication, ethical integrity, and legal issues that are central to patient care. Students develop DNP communication competencies as related to scientific underpinnings for DNP practice. Letter grading.


408. Interprofessional Collaboration for Improving Patient and Population Health Outcomes. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Designed to acquaint DNP students with contemporary issues in collaborative practice. Students are exposed to interprofessional collaborative practice concepts and competencies. Debate of barriers and facilitators to achieving collaborative practice. Exploration of collaborative opportunities to increase current practice. Exploration of students’ personal belief systems about high-level collaboration and team performance. Addresses relationship between interprofessional education, practice, and health care outcomes and processes to prepare DNP graduate to assume leadership roles. Letter grading.

409. Health Care Policy for Advocacy in Health Care. (3) Seminar, three hours. Requisite: doctoral standing. Prepares students to develop, articulate, and advocate for policies that advance and protect 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 through development of policy brief, students recognize role of political activism as it relates to DNP practice. Letter grading.


411. Information Technology for Nursing Practice. (2) Lecture, two hours. Requisite: doctoral standing. Prehapes 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 integrate information technology resources to implement quality improvement initiatives, support practice administrative decision-making, and improve patient outcomes. Letter grading.

414A-414B. Clinical Practicum: Adult/Gerontology Acute Care Oncology Nurse Practitioners. (6–8) Lecture and clinical hours. Enrolled students complete minimum of 160 direct clinical hours; for course 414B, they complete minimum of 200 direct clinical hours. Letter grading.
416A-416B. Adult/Gerontology Acute Care Nurse Practitioner Practicum I, II (2-6) Clinic, practicum, six hours (course 416A) and 16 hours (course 416B). Enforced requisite: course 440. Course 416A is enforced requisite to 416B. 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. For course 416A, students complete minimum of 40 direct clinical hours; for course 416B, they complete minimum of 160 direct clinical hours. Letter grading.

418A-418C. Family Nurse Practitioner Practicum V. (6 to 8) Clinic practicum, 15 to 24 hours. Enforced requisite: course 416B. 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.

418A-418B-418C. Nursing Administration Practicum. (3 or 4 each) Clinic practicum, eight or 11 hours; clinical conference, one hour. Letter grading. 418A. Requisites: courses 219A, 219B. Synthesis, evaluation, and practical application of organizational theory in practice setting, with emphasis on content presented in course 219A, including organizational structure, processes, and outcomes. 418B. Requisites: courses 219A, 219B. Experience in organizational setting for synthesizing and evaluating content from course 219B, including assessment of community healthcare needs, marketing, media, and political action and healthcare policy. Letter grading.

429A. Family Nurse Practitioner Practicum I. (4) Clinic practicum, 12 hours. Requisites: courses 200, 240. First of five clinical courses 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, disability, 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. For courses 429A and 429C, students complete minimum of 160 direct clinical hours; for course 429E, they complete minimum of 240 direct clinical hours. Letter grading.

439A. Adult/Gerontology Primary Care Nurse Practitioner Practicum II. (6) Clinic practicum, 18 hours. Requisites: course 439A. Corequisite: course 239B. 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. (6) Clinic practicum, 18 hours. Requisites: course 439B. Corequisite: course 239C. Third clinical practicum course for advanced practice nurses, with focus on patient care and inter-vention in common illness-associated symptoms and complex patient/family presentations. Analysis, evaluation, and integration of current theory and research to provide care and treatment for clients in specialty setting. Emphasis on critical thinking and integration of theory, research, and clinical knowledge in advanced practice role. Students complete minimum of 160 direct clinical hours. Letter grading.

450. Advanced Practice Registered Nursing: Clinical Elective Independent Study. (2 to 8) Clinic, practicum, eight hours. Clinical elective designed to enhance skills and competencies in student-selected advanced practice specialty or related practice dimension, with emphasis on application and integration of theory and evidence-based practice knowledge. S/U grading.


463. Nursing Care of Geriatric Patients and Families. (3) Clinical, one hour. Requisites: courses 252A, 252B, 465A. Addresses prevention and management of acute and chronic health problems of older adults. Theory content emphasizes assessment, history, diagnosis, treatment planning, and evaluation of nursing care of older adults and their families with emphasis on psychosocial, cultural, and developmental influences. Students integrate knowledge of pathophysiology, pharmacology, stress and adaptation, adult development theory, therapeutic interventions, and communication concepts as applied to care of older adult patients and their families. Examination of nursing assessment and management of selected acute and emergent problems of maternity-newborn patients, with emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, and communication concepts as applied to care of medical-surgical patients. Supervised practical experience of multidisciplinary teams directing care of medical-surgical clinical units, with focus on clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Letter grading.

465B. Tertiary Prevention and Care of Medical-Surgical Patients and Families. (6) Lecture, four hours; clinical, six hours. Requisites: courses 252A, 252B, 260, 465B, 465C, 465C. Pathophysiological and psychosocial aspects of assessment and management for selected acute and emergent problems of adult patients with complex illness including multifaceted assessment, health history, and diagnostic reasoning for selected health problems, with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, stress and adaptation, adult development theory, therapeutic interventions, patient safety, evidenced-based practice, and communication concepts as applied to care of medical-surgical patients. Supervised practical experience of multidisciplinary teams directing care of medical-surgical clinical units, with focus on clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Letter grading.

465C. Tertiary Prevention and Care of Complex Medical-Surgical Patients and Families. (8) Lecture, four hours; clinical, six hours. Requisites: courses 204, 260, 465B. Examination of nursing assessment and management of acute and chronic health problems of acutely ill adults. Theory content in assessment, health history, and diagnostic reasoning with emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, pharmacology, stress and adaptation, adult development theory, therapeutic interventions, and communication concepts as applied to care of acutely ill medical-surgical patients, with complex and comorbid conditions, and their families. Clinical experiences focus on bedside responsibilities, with emphasis on critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical research, evidence-based practice, and problem solving, and critical thinking strategies to improve patient safety, care quality, and health outcomes. Supervised practical experience within setting of multidisciplinary team in clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating nursing care in pediatric setting, with emphasis on application of theory in clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Letter grading.


470A. DNP Scholarly Project Course I: Project Conceptualization and Planning. (2) Lecture, two hours; clinical, four hours. Requisites: courses 401, 402, 403, 404, 405, 408. Preparation: successful completion of first year of DNP didactic coursework. DNP students gain knowledge, skills, and context necessary to develop evidence-based project proposal and plan, which addresses practice issue affecting chosen microsystem. Provides structured didactic content and application of student’s DNP scholarly project. Letter grading.

470B. DNP Scholarly Project Course II: Project Proposal. (8) Lecture, two hours; clinical, six hours. Requisites: course 470A. DNP students develop full DNP scholarly project proposal that reflects synthesis of student’s knowledge from prior coursework and work in area of interest or expertise under direction of 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. Requisites: 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 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. Requisites: course 470D. 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 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.

496A-496B-496C. Education Practicum in Nursing Practice I, II, III. (1–1–1) Activity, one hour; discussion, one hour. Corequisites for course 496A: courses 496A, 496B, 496C, 496D, 496E, 496F. Corequisites for course 496C, 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 their 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 students and chair. May be repeated for credit, but only 4 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
Box 951740
Los Angeles, CA 90095-1740

Obstetrics and Gynecology
310-204-6575

Deborah Krakow, MD, Chair
Jeaninne Rahimian, MD, Vice Chair, Administration and Clinical Affairs
Brian J. Koos, MD, DPhil, Vice Chair, Academic Affairs
Otoniel M. Martinez, PhD, Vice Chair, Network/Satellite Development
Khali M. Tabsh, MD, Vice Chair, Olive View-UCLA
Christine H. Holtschneider, MD, Vice Chair, Cedars-Sinai
Sarah J. Kilpatrick, MD, PhD, Vice Chair, UCLA
Eric N. Saleeb, MD, MPH, 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](http://www.ucla.edu).

**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, 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 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 grading.

**Ophthalmology**

**David Geffen School of Medicine**

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Ophthalmology
310-825-5053

Bartly J. Mondonio, MD (Bradley R. Straatsma, MD, Endowed Professor of Ophthalmology), Chair
Anne L. Coleman, MD (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 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](http://www.ucla.edu).

**Oral Biology**

**School of Dentistry**

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Oral Biology
E-mail contact
Cun-Yu Wang, DDS, PhD, Chair
Fariba S. Younai, DDS, Vice Chair

**Faculty Roster**

**Professors**

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Anahid Jewett, 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 Tetradas, DDS, PhD
Cun-Yu Wang, DDS, PhD (Dr. No-Hee Park Professor of Dentistry)
David T. Wong, DMD, DMSc (Felix and Mildred Yip Endowed Professor of Dentistry)

**Associate Professors**

Reuben Kim, DDS, PhD
Yong Kim, PhD, in Residence

**Assistant Professors**

Jimmy K. Hu, PhD
Alireza Moshaverinia, 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 objec-
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.

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

201A-201C. Advanced Oral Biology. (3-6) Lecture, three hours. S/U or letter grading.
201. Ontogenesis. (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, carcinogenesis, colonization of mucosal substrates by opportunists, etc. S/U or letter grading.
202. Salivary Diagnostics: Salivomics, Saliva-Exosomes, Saliva Liquid Biopsy. (2) Lecture, one hour. Focus on basic, translational, and clinical advancement of saliva and its -omics constituents in oral and systemic health, precision, and personalized medicine. Topics covered by active investigators in field of research. Lectures accompanied by two cutting-edge papers in field to prime student of exciting and emerging fields. Letter grading.

205A. Methodology in Research Design and Data Analysis. (2) Lecture, two hours. Designed for graduate oral biology students. Introduces students to descriptive lec- tures in descriptive and inferential statistics and in re- search design (emphasis on experimental design), presentations of statistical methods. Emphasizes open discus- sion 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. Specialized topics include level and quality of evidence assessments, acceptable sampling analysis, meta-analysis and meta-regres- sion, and Bayesian-derived decision making following utility versus likelihood. Students work on examples of their choice and interest in oral biology, medicine, and orthodontics. Letter grading.
220. Current Topics in Oral Immunology. (2) Lecture, two hours. Preparation: basic immunology. Dis- cussion and analysis of current research dealing with immunological issues related to oral health, including HIV, opportunistic viral infections, periodontal patho- logy, oral immunopathology, cancer immunology, endodontic immunology, etc. Letter grading.
226. Craniofacial Growth and Development. (2) Seminar, one hour; discussion, one hour. Introduction to fundamentals and technical aspects of genomics and proteomics and analysis of data de- rived therefrom. Discussion of implications and appli- cations of genomics and proteomics in diagnostic protocols such as salivary diagnostics. Letter grading.
228. Dental Pharmacology and Therapeutics. (2) Lecture, two hours. Preparation: strong background in biochemistry, physiology, and pharmacology. Topics include advanced knowledge of relevant aspects of human bi- ology as they apply to current and classic concepts of principles governing growth and development of craniofacial region. Students required to present semi- nars on assigned topics that aid their understanding and analysis of course content that has direct application to their specific and professional fields. Letter grading.
229. Anthropological Perspectives on Global Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour. Discussion, one hour. Preparation: advanced knowledge of relevant aspects of human biology as they apply to current and classic concepts of principles governing growth and development of craniofacial region. Students required to present semi- nars on assigned topics that aid their understanding and analysis of course content that has direct application to their specific and professional fields. Letter grading.
215B. Current Advanced Research Topics in Immunology. (2) Seminar, one hour; discussion, one hour. Overview of rapidly changing discoveries in very im- portant field of immunology. Directed and student-led discussions of current cutting-edge research develop- ments in immunology, cell biology, neuroimmunology, 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- terials science or broader area of biomaterials relevant to clinical dental practice. Fundamentals of dental ma- terials and knowledge necessary to participate in re- search and product development. Introduction to ma- terials science, with focus on major classes of mate- rials used in dentistry, including polymers, metals, and ceramics, and providing up-to-date information on dental materials currently used in clinical dentistry. Letter grading.
222. Craniofacial Growth and Development. (2) Lecture, two hours. Preparation: strong background in histology and embryology. Students acquire, from sci- entific literature discussed in lecture/semiseminar format, advanced knowledge of relevant aspects of human bi- ology as they apply to current and classic concepts of principles governing growth and development of craniofacial region. Students required to present semi- nars on assigned topics that aid their understanding and analysis of course content that has direct application to their specific and professional fields. Letter grading.
227. Cultural, Ethnicity, and Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour. Discussion, one hour. Preparation: advanced knowledge of relevant aspects of human biology as they apply to current and classic concepts of principles governing growth and development of craniofacial region. Students required to present semi- nars on assigned topics that aid their understanding and analysis of course content that has direct application to their specific and professional fields. Letter grading.
229A. Culture, Ethnicity, and Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour. Discussion, one hour. Preparation: advanced knowledge of relevant aspects of human biology as they apply to current and classic concepts of principles governing growth and development of craniofacial region. Students required to present semi- nars on assigned topics that aid their understanding and analysis of course content that has direct application to their specific and professional fields. Letter grading.
229B. Anthropological Perspectives on Global Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour. Discussion, one hour. Preparation: advanced knowledge of relevant aspects of human biology as they apply to current and classic concepts of principles governing growth and development of craniofacial region. Students required to present semi- nars on assigned topics that aid their understanding and analysis of course content that has direct application to their specific and professional fields. Letter grading.
in the clinical area to the laboratory bench and vice versa. For more information, see the department website.

**Pathology and Laboratory 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 Courses**

110. Introduction to Cytogenetics. (4) Lecture, one hour; discussion, two hours. Limited to upper-division biology students. Cytogenetics is branch of genetics concerned with study of structure and function of cells, especially chromosomes. Coverage of broad range of topics on both clinical aspects and research in cytogenetics. Studies provide important paradigms to understand structure of chromosomes, mechanisms of chromosome segregation, diseases, and problems created for numerical and structural abnormalities of human chromosomes as well as study of new techniques in molecular cytogenetics, including fluorescence in situ hybridization (FISH), comparative genomic hybridization (CGH), and array CGH to diagnose constitutional syndromes and cancer. Journal club sessions include discussion of two journal articles per meeting (one clinical and one basic/translational). Presentation of at least one journal article and leading of one group discussion required. 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 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 Pathology. (2 to 4) Tutorial, 10 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.

222. Hematopoiesis: Basic Biology and Clinical Implications. (4) Lecture, three hours; discussion, one hour. Senior and undergraduate students considered on case by case basis. In-depth study of concepts and paradigms in hematopoietic development. Mammalian hematopoietic normal development, with focus on molecular regulation of cellular development and equal emphasis on conceptual and experimental aspects of knowledge in field. Discussion of important pathological aspects of hematopoietic systems as well as established and novel avenues for therapy. Topics include hematopoietic stem cells and niche, transcriptional and epigenetic regulation of hematopoiesis, hematopoietic niche development, myeloid, erythroid, and platelet development, 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. Enforced requisites: Molecular Biology 254A through 254D. Molecular mechanisms of 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.

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 introductory knowledge of 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: knowledge of 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 genome mapping. Selected regions of human genomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from mouse to human. Discussion of localizations of disease 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 summaries dealing with interactions between viruses, oncogenes, development, 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 toxicology, and interaction of toxic agents with specific organ systems.

M258. Pathologic 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 pathologic 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. Focus on relationship between immunology and the study of transplant recipients and advanced undergraduates studying immunology. Letter grading.

262. 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 utility in clinical and research applications. Focus on relationship between various chromosomal and genomic abnormalities in humans as identified by basic and advanced technologies such as fluorescence in situ hybridization, oligonucleotide array 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, basic principles of stem cell biology, angiongenesis, alternative models to study developmental hematopoiesis (zebrafish and Drosophila), basic physiology of normal and abnormal red cells, red cell disorders, and white cells, leukemogenesis and novel therapies to treat leukemia, and basic and clinical stem cell transplantation, state-of-the-art methods in developmental hematology (genomics, proteomics, and gene therapy, design of clinical trials, and biomathematical modeling and 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. Designed for graduate students. Presentation of current knowledge of embryonic and adult stem cells and factors that regulate their growth and development. Emphasis on 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 Nocturia Hemoglobinuria, flow cytometry, and research approaches to study bone marrow failure syndromes. Journal club sessions include discussion of two journal articles per meeting—one clinical and one basic/translational. Students present at least one journal article and lead group discussion. S/U or letter grading.


295. 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.

296. Directed Individual Study or Research. (4 to 12) Tutorial, to be arranged. Individual research with members of the staff of or other departments, the latter for purpose of supplementing programs available in department. S/U grading.


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 fourth-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.

Pediatrics

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) (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. (2) Tutorial, to be arranged. Enforced prerequisite: course 188SA. Enforced prerequisite: 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.

199. Directed Research in Pediatrics. (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 Course

M215. Interdepartmental Course: Tropical Medicine. (2) (Same as Medicine M215 and Pathology M215.) Lecture, two and one half hours. Preparation: Basic courses in microbiology and parasitology of infectious diseases in School of Medicine or Public Health. Study of current knowledge about diseases prevalent in tropical areas of world. Major emphasis on infectious diseases, with coverage of problems in nutrition and exotic noninfectious diseases. Syllabus supplements topics covered in classroom. S/U grading.

PHARMACOLOGY

See Molecular and Medical Pharmacology

PHILOSOPHY

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Gavin Lawrence, DPhil, Chair

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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 Roush, PhD
Seana Shiffrin, JD, DPhil
Sheldon R. Smith, PhD

Professors Emeriti
Robert Merritrew Adams, PhD
Joseph Almog, DPhil
Brian P. Copenhaver, PhD (Steven F. and Christine L. Udvar-Hazy Professor Emeritus)
Donald A. Martin, BS
Herbert Morris, LLB, DPhil
Terence D. Parsons, PhD

Associate Professors
Samuel J. Cunningham, PhD
Alexander J. Jullius, PhD
Sean Walsh, PhD

Assistant Professors
Joshua D. Armstrong, PhD
Adam D. Crager, PhD
Daniela J. Dover, PhD
Katrina J. Elliott, 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 methodology 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 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 major requirements or another minor. A minimum of 8 units of course 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 three of the four groups into which the undergraduate and graduate courses are divided (Philosophy 100A, 100B, 100C apply toward Group I); one additional upper- or lower-division philosophy course.

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 Sophists 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 currents related thematically and studied in chronological order: properties of rational argument, existence of God, problem of knowledge, nature of causality, relation between mind and body, possibility of justice, and others. P/NP or letter grading.

4. Philosophical Analysis of Contemporary Moral Issues. (5) Lecture, three hours; discussion, one hour. Critical study of principles and arguments advanced in discussion of current moral issues. Possible topics include revolutionary violence, rules of warfare, sexual morality, right of privacy, punishment, nuclear warfare and deterrence, abortion and mercy killing, experimentation with human subjects, rights of women. 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 self-deception, death, and meaning of life through examination 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 What is justice? Why obey the law? What 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 of 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 analyze them and assess soundness of reasoning they represent. 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 application in making normative decisions (e.g., betting). 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 and illuminating many paths of discovery at UCLA. P/NP grading.

21. Skepticism and Rationality. (5) Lecture, four hours; discussion, one hour. Can we know anything with certainty? How can we justify any of our beliefs? Introduction to study of these and related questions through works of some great philosophers of modern period, such as Descartes, Hume, Leibniz, or Berkeley. P/NP or letter grading.

22. Introduction to Ethical Theory. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for 22W. Recommended or required for many upper-division courses in Group III. Systematic introduction to ethical theory, including
discussion of egoism, utilitarianism, justice, responsibility, meaning of ethical terms, relativism, etc. P/NP or letter grading.

22W. Introduction to Ethical Theory. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 100A. Limited to 10 students. Enrolled students must sign up for class 22. Introduction to major ethical theories in Western thought. Examination of works of Plato, Aristotle, Hume, Kant, and ethics; considering themes such as duty, obligation, egoism, relativism, and foundations of morals. Four papers required. Satisfies Writing II requirement. Lecture.

23. Meaning and Communication. (5) Lecture, three hours; discussion, one hour. Theory of meaning and its relationship to philosophy more generally; nature, origins, and acquisition of language. Additional topics may include nonlinguistic and nonhuman systems of communication; theories of interpretation in law, literature, and art; and use of theoretical terms in science. P/NP or letter grading.

M24. Language and Identity. (5) Same as Linguistics M27. 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 speech act theory as an account for systematic subordination of women; marginalization of racial minorities; and, in some cases, incitement to violence through hate speech. Provides foundation for study of linguistic theory, philosophy, sociolinguistics, anthropology, and communication studies. P/NP or letter grading.

31. Logic, First Course. (5) Lecture, four hours; discussion, one hour. Recommended for students who plan to pursue more advanced studies in logic. Elements of symbolic logic, sentential and quantificational; forms of reasoning and structure of language. 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.

97. Freshman Seminar. (4) Variable topics; consult Schedule of Classes or "Department Announcements" for topics to be offered in a specific term. May be repeated for credit with consent of instructor.

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. 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 context of philosophical theology, and translation from medieval to early modern period. 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: courses 100A, 100B, and 100C should be taken in immediately successive terms if possible. Survey of development of metaphysics and theory of knowledge from 1650 to 1800, including Hobbes, Malebranche, Spinoza, Leibniz, and in Hume and Kant. Topics may include views of these (and perhaps other) philosophers of mind and body, causality, existence of God, skepticism, metaphysics 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 M140A. 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.

M101B. Plato—Later Dialogues. (4) Same as Classics M142A. 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 works, an examination of the works, and their influence on later philosophy. P/NP or letter grading.

M103B. Later Ancient Greek Philosophy. (4) Same as Classics M145B. Lecture, three hours; discussion, one hour. Preparation: one philosophy course. 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 works, an examination of the works, and their influence on later philosophy. P/NP or letter grading.

104. Topics in Islamic Philosophy. (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-Kindí, Ibn Sina (Avicenna), al-Ghazali, ben Maimon (Maimonides), Ibn Rushd (Averroes), and Subrahmanya. 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 epistemology 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.

107. Topics in Medieval Philosophy. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course. Recommended requisite: course 105 or 106. Study of philosophy of one of the medieval philosophers such as Augustine, Anselm, Abelard, Aquinas, Scotus, or Ockham, or study of one 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, especially 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: course 21 or two philosophy courses. Study of works of Descartes, with discussion of major works 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: course 21 of Study of Philosophy of Spinoza. May be concurrently scheduled with course C111, in which case there is weekly discussion meeting, plus fewer readings and shorter papers for undergraduates. Limited to 30 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 meeting, plus fewer readings and shorter papers for undergraduates. Limited to 30 students when concurrently scheduled. P/NP or letter grading.

C112. Locke and Berkeley. (4) Lecture, four hours. Preparation: one philosophy course. Study of philosophies of Locke and Berkeley, with emphasis in some courses on one or on the other. Limited to 30 students when concurrently scheduled with course C212. P/NP or letter grading.

C114. Hume. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics from metaphysical, epistemological, and ethical writings of Hume. Limited to 40 students when concurrently scheduled with course C214. P/NP or letter grading.

C115. Kant. (4) Lecture, three hours; discussion, one hour. Preparation: course 21 or 22. Study of Kant's views on related topics in theory of knowledge, ethics, and politics. May be repeated for credit with consent of instructor. Concurrently scheduled with course C215. P/NP or letter grading.

116. 19th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in 19th-century thought.

117. Late 19th- and Early 20th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in work of one or more following philosophers: Bolzano, Peirce, James, Meinong, G. Moore, early Russell, and Wittgenstein. May be repeated for credit with consent of instructor.

118. Kierkegaard. (4) Preparation: one philosophy course. Philosophical study of some major works of Kierkegaard, with emphasis on interpretation of the texts.

C119. Topics in History of Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected philosophers or themes in history of philosophy from different periods (e.g. ancient and medieval, medieval and early modern). May be repeated for credit with consent of instructor. Concurrently scheduled with course C219. P/NP or letter grading.

Group II: Logic, Semantics, and Philosophy of Science

124. Philosophy of Science: Historical. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Historical introduction to philosophy of science. Several general topics discussed in context of actual episodes in development of natural sciences. May be repeated for credit with consent of instructor.

125. Philosophy of Science: Contemporary. (4) Lecture, three hours; discussion, one hour. Preparation: one or more of the courses in Group I. Study of contemporary philosophy of science, focusing on problems of central importance. May be repeated for credit with consent of instructor.
Group III: Ethics and Value Theory

150. Society and Morals. (4) Lecture, three hours; discussion, one hour. Requirement: course 22. Critical study of principles and arguments advanced 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. P/NP or letter grading.

151A-C151B-151C. History of Ethics. (4–4–4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. May be taken independently of one another. Topics include invariance results, definability theorems, and relationship between modal logics and (classical) first- and second-order logic. P/NP or letter grading.

152A. Topics in Moral Philosophy. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in moral philosophy. Possible topics may include responsibility and free will, causes and motivations for evil action, and variant responses to evil such as forgiveness and punishment. P/NP or letter grading.

152B. Topics in Moral Philosophy: Evil. (4) (Same as Study of Religion M175.) Lecture, three hours; discussion, one hour (when scheduled). Preparatory course. Course 152A is not requisite to 152B. Exploration of philosophical issues surrounding evil and theodicies. Responsibility for evil and problem of free will, causes and motivations for evil action, and variant responses to evil such as forgiveness and punishment. P/NP or letter grading.

153A. Topics in Ethical Theory: Normative Ethics. (4) Lecture, three hours; discussion, one hour. Requirement: 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 beliefs, moral realism, skepticism, 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.

154B. Topics in Value Theory: Rationality and Action. (4) Lecture, three hours; discussion, one hour. Requirement: course 6 or 7 or 22. Selected topics concerning normative issues in 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. P/NP or letter grading.

155A. Medical Ethics. (4) (Formerly numbered 155.) Lecture, three to four hours; discussion, one hour (when scheduled). Intensive investigation of one or two topics or philosophical issues in medical ethics, such as paternalism, truth-telling, physician-patient relationship, distributive justice, autonomy, 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.

155B. Topics in Medical Ethics. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Course 155A is not requisite to 155B. Intensive investigation of one or two topics or philosophical issues in medical ethics, such as paternalism, truth-telling, physician-patient relationship, distributive justice, autonomy, 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.

156. Philosophy of Science. Social Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Discussion of topics in philosophy of social sciences (e.g., methods of social sciences in relation to physical sciences, value-bias in social inquiry, concept formation, theory construction, explanation and prediction, nature of social laws).

1C72A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Recommended: course 31. Syntax, semantics, pragmatics. Semantical concepts 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 C228A. P/NP or letter grading.

1C72B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requirement: course 31. Course C127A is not requisite to C127B. Selected topics similar to those considered in course 1C72A, but at more advanced technical level. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228B. P/NP or letter grading.

1C72C. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requirement: course 31. Recommended: course C127A or C127B. Selected topics similar to those considered in course C127A, 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.

1C78. Topics in Philosophy of Mathematics. (4) (Formerly numbered 128.) Lecture, four hours. requirement: 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 formalism, logicism, and intuitionism in this historical context. Study of original texts of philosophy such as Kant, Frege, and Russell and how their philosophy interacted with contemporary developments in mathematics and logic. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C223. P/NP or letter grading.

1C79. Philosophy of Psychology. (4) Lecture, three to four hours; discussion, one hour (when scheduled). 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. May include nature of space, time, and physicality, conventionalism, absolutist versus relationalist views of space and time, philosophical impact of relativity theory.

1C81. 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. 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, travel backwards and forwards, determinism, absolute view of space, etc. May be repeated for credit with consent of instructor. P/NP or letter grading.

1C82. Logic, Second Course. (4) (Formerly numbered 137.) Lecture, four hours; discussion, one hour. Enforced requisite: course 31 (preferably in preceding term). Symbolic logic: extension of systematic development of course 31. Quantifiers, identity, definite descriptions. P/NP or letter grading.

1C83. Topics in Logic and Semantics. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Possible topics include formal theories, definitions, alternative theories of descriptions, many-valued logics, deviant logics. May be repeated for credit with consent of instructor. P/NP or letter grading.

1C84A. Introduction to Set Theory. (4) (Same as Mathematics M114A.) Lecture, three hours; discussion, one hour. Requirement: course 135 or Mathematics 110A or 131A. Axiomatic set theory as framework for mathematical concepts; relations and functions, numbers, cardinality, axiom of choice, transfinite numbers. P/NP or letter grading.

1C85. Introduction to Metalogic. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Strongly recommended requisite: course 132 or (Mathematics 33A or 33B). Metatheory sentential logic and first-order logic. Introduction to formal language, formal deductive systems, and models. Correctness, completeness theorems that concern complexity of notion of logical consequences. P/NP or letter grading.

1C86. Modal Logic. (4) Lecture, four hours. Requirement: courses 31 (enforced), 135. Introduction to model theory of systems that include logics of possibility and necessity, temporal logics, epistemic logics, and logics of actions/processes. Topics include invariance results, definability theory, completeness game-theoretic methods, and relationship between modal logics and (classical) first- and second-order logic. P/NP or letter grading.

1C87. Philosophy of Biology. (4) (Formerly numbered 132.) Lecture, three to four hours; discussion, one hour (when scheduled). 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.

1C88. Philosophy of Visual Representation. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course (in philosophy of mind or language recommended). Investigation of philosophical questions relating to visual representation. Possible topics include visual perception, mental imagery, visual language, semantics, pictorial representation, comics and film, diagrams, and data visualization. P/NP or letter grading.

1C91A-C151B-151C. History of Ethics. (4–4–4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Each course may be taken independently of one another. May be concurrently scheduled with course C247. P/NP or letter grading.

1C91A. 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. 1C15. Selected Classics of Medieval Ethics.

1C92A. 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 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.
166. Philosophy of Law. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination, through study of recent philosophical writings of such topics as nature of law, relationship of law and morals, legal reasoning, punishment, and obligations imposed by law. May be repeated for credit. P/NP or letter grading.

167. Feminist Issues in Value Theory. (4) Lecture, three hours; discussion, one hour (when scheduled). 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; hierarchy, and obligation. Women and gender equality in family and workplace; sexual harassment and violence; reproductive freedom; and just and unjust institutional arrangements as they affect gender. P/NP or letter grading.

Group IV: Metaphysics and Epistemology

170. Philosophy of Mind. (4) Lecture, three hours; discussion, one hour. Preparation: two relevant philosophy courses. Analysis of various problems concerning nature of mind and mental phenomena, such as relation between mind and body, and our knowledge of the mind's inner activity. May be repeated once for credit with consent of instructor.

172. Philosophy of Language and Communication. (4) Lecture, three hours; discussion, one hour. Theories of meaning and communication; how words refer to things; limits of meaningfulness; analysis of speech acts; relation of everyday language to scientific discourse. 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 constructivist 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 reproduction. P/NP or letter grading.

174. Topics in Theory of Knowledge. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Topics announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.

M175. Topics in Philosophy of Religion. (4) (Same as Religion M175.) Lecture, three hours; discussion, one hour. Requisite: course 21 or 22. Intensive investigation of one or two selected topics or works in theory of knowledge, such as a priori knowledge, problem of induction, meaning, and justificatory value. Topics announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.


177A. Existentialism. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Analysis of metaphysical, problems, and views of some of the following: Kierkegaard, Nietzsche, Heidegger, Jaspers, Sartre, Marcel, and Camus. Possible topics include metaphysical foundations, nature of mind, freedom, problem of self, other people, ethics, existential psychoanalysis. May be repeated for credit with consent of instructor. P/NP or letter grading.

177B. Historical Studies in Existentialism. (4) Preparation: one central course. Seminar in philosophical texts of one of the following: Nietzsche, Heidegger, Jaspers, Buber, Sartre, or Camus. Emphasis on explication and interpretation of the texts. May be repeated for credit with consent of instructor.

178. Phenomenology. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Introduction to phenomenological method of approaching philosophy via works on some of the following: Brentano, Husserl, Heidegger, Scheler, Sartre, Merleau-Ponty, Ricoeur. Topics include ontology, epistemology, and particularly philosophies of mind.

179. Asian Philosophy. (4) Lecture, three hours; discussion, 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 department. P/NP or letter grading.

180. Philosophy of Action. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Requisites: two philosophy courses. Study of various concepts of action. Topics may include rational choice, desire, intention, weakness of will, 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. Requisite: course 21. Study of basic metaphysical questions: nature of physical world, of minds, and of universals; and answers provided by alternative systems (e.g., phenomenalism, materialism, dualism). P/NP or letter grading.

183. Theory of Knowledge. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Problem-oriented study of contemporary classics of epistemology 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 instructor. P/NP or letter grading.

184. Topics in Metaphysics. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Intensive investigation of one or more major topics in metaphysics, such as personal identity, nature of dispositional, possibility and necessity, universals and particulars, causality. Topics announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.

185. Major Philosophers of 20th Century. (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 repeated for credit with consent of instructor. P/NP or letter grading.

186. Major Philosophers of 20th Century (I). (4) Lecture, three hours; discussion, two hours. Preparation: one philosophy course. Study of writings of one or more major modern philosophers (e.g., Russell, Moore, Wittgenstein, Carnap, Quine). May be repeated for credit with consent of instructor. P/NP or letter grading.

186B. History of Philosophy. (4) Lecture, three hours; discussion, two hours. Preparation: one philosophy course. Examination in depth of different theories of metaphysics and epistemology. May be repeated for credit. Individual contract required. Letter grading.

187. Topics in Feminist Philosophy: Metaphysics and Epistemology. (4) (Same as Gender Studies M110C.) Lecture, three hours; discussion, one hour (when scheduled). Requisite for Gender Studies majors: Gender Studies 10; for other students: one philosophy course. Both of different theoretical positions on gender and women as they have been applied to study of philosophy. Emphasis on theoretical contributions made by new scholarship on women philosophers. 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.

Special 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 design 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 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 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar. One hour. 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 College Honors for eligible students. May not be applied toward departmental honors. May be repeated for credit. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, one hour. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor. May be applied toward departmental honors. May be repeated for credit. Maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Philoso phy. (4) Seminar, one hour; discussion, three hours. Variable topics; consult Schedule of Classes or “Department Announcements” for topic to be offered in specific term. Reading, discussion, and development of culminating project. May be repeated for credit with consent of instructor. P/NP or letter grading.

198A-198B. Honors Research in Philosophy. (2–2) Tutorial, two hours. Limited to junior/senior philosophy honors program students. Each course to be taken in conjunction with one upper-division philosophy lecture course, either concurrently or in subsequent term, under direct supervision of lecture course instructor. Advanced work related to lecture course, further reading, and preparation of 12- to 15-page paper representing original research. Courses 198A and 198B must be taken in conjunction with two different lecture courses, and both must be taken to satisfy departmental honors requirement. May be repeated for credit. Individual contract required. Letter grading.

198C. Honors Research in Philosophy. (4) Tutorial, four hours. Limited to junior/senior philosophy honors program students. 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 Philosophy. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or research project required. Up to two courses may be applied towards major or minor in philosophy, but no 199 course may be substituted for course in one of four groups on basis of similarity of subject matter. May be repeated for credit. Individual contract required. P/NP or letter grading.
Graduate Courses

200A-200B-200C. Seminar for First-Year Graduate Students. (4-4-4) Seminar, three hours. Limited to and required of all first-year graduate philosophy students. Selected topics in metaphysics and epistemology, history of philosophy, and ethics. S/U or letter grading.

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 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 concept or major problem 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.

208. Hobbes. (4) Lecture, four 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.

209. 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.

210. Spinoza. (4) Lecture, three hours. Selected topics in philosophy of Spinoza. May be concurrently scheduled with course C110, in which case there is a two-hour biweekly discussion meeting, plus additional readings and longer term paper for graduate students. S/U or letter grading.

211. Leibniz. (4) Lecture, three hours. Selected topics in philosophy of Leibniz. May be concurrently scheduled with course C111, in which case there is a two-hour biweekly discussion meeting, plus additional readings and longer term paper for graduate students. S/U or letter grading.

212. Locke and Berkeley. (4) Lecture, four hours. Preparation: one philosophy course. Study of philosophies of Locke and Berkeley, with emphasis in some cases on one or other. Limited to 30 students when concurrently scheduled with course C112. S/U or letter grading.

214. 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.

215. Kant. (4) Lecture, three hours; discussion, one hour. Requisite: course 21 or 22. Study of Kant's views on relations of mind and world, knowledge, ethics, and politics. 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.

219. 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., ancient and medieval, medieval and early modern). May be repeated for credit with consent of instructor when scheduled with course C119. S/U or letter grading.

220. Seminar: Topics in 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


221B. History of Set Theory. (4) Lecture, four hours. Development of concept of set and axiomatic set theory by examining selected writings of Frege, Cantor, Russell, Zermelo, Gödel, and several others. Origins and significance of certain key ideas, such as set theory as logic, axiomatic set theory as reaction to paradoxes, formal first-order axiomatic set theory as response to informal set theory. Formal rank hierarchy,ramification and predicativity, proper classes and sets as small classes, and particular Zermelo-Fraenkel axiomatic theory. Emphasis on actual expressive ideas and views of various influential authors. S/U or letter grading.


223. Topics in Philosophy of Mathematics. (4) Lecture, four hours. Introduction to philosophy of mathematics. Study of philosophical papers by mathematicians from Kant to Hilbert. Study of content and development of three main schools of logicism, 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 mathematics and logic. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C12B. S/U or letter grading.

224. Philosophy of Physics. (4) Seminar, three hours. Selected philosophical topics related to physical theory, depending on interests and background of participants, including space and time; observation in quantum mechanics; foundations of statistical mechanics. May be repeated for credit with consent of instructor. S/U or letter grading.

225. Probability and Inductive Logic. (4) Lecture, three hours. Topics may include interpretations of probability, Bayesian and non-Bayesian confirmation theory, paradoxes of confirmation, coherence, and conditioning. S/U or letter grading.

226. Topics in Mathematical Logic. (4) Lecture, four hours. Content varies from term to term. May be repeated for credit with consent of instructor. S/U or letter grading.

227. 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 science and natural science, the trouble of explanation in social sciences, determinism and spontaneity in history, interpretation of cultures radically different from one's own. Students with primary interest and advanced preparation in social sciences encourages them to enroll. May be repeated for credit with consent of instructor. S/U or letter grading.

228A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Syntax, semantics, pragmatics, Semantics concept of truth, senses, 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.

228B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 31. Course 228A is not requisite to course 228B. Selected topics similar to those considered in course 228A, but at more advanced and technical level. 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 repeated for credit with consent of instructor. 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. Requisites: course 150 or C156 or 157A or 157B or any two philosophy courses. 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, and decision theory. May be repeated for credit with consent of instructor. 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.
The Astrophysics major has the following learning outcomes:

- Demonstrated mastery of fundamental principles and applications of classical mechanics, electricity and magnetism, quantum mechanics, statistical mechanics, and thermodynamics.

**Astrophysics BS Learning Outcomes**

The Astrophysics major has the following learning outcomes:

- Demonstrated mastery of fundamental principles and applications of classical mechanics, electricity and magnetism, quantum mechanics, statistical mechanics, and thermodynamics.
• Demonstrated mastery of necessary mathematical skills in differential equations, analysis, and linear algebra
• Understanding of astronomy and astrophysics including planets, stars, galaxies, cosmology, and the underlying physical processes that govern these systems
• Demonstrated proficiency in basic laboratory skills, including understanding and use of modern instrumentation and computers
• Development of critical scientific thinking
• Ability to retrieve and organize scientific information
• Ability to apply scientific methodology to qualitative and quantitative analysis of physical phenomena
• Ability to present clear written and oral accounts of scientific results

**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](https://admissions.ucla.edu/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:

• Demonstrated mastery of fundamental principles and applications of classical mechanics, electricity and magnetism, quantum mechanics, statistical mechanics, and thermodynamics
• Demonstrated mastery of necessary mathematical skills in differential equations, analysis, and linear algebra
• Mastery of knowledge in basic biological science
• Demonstrated proficiency in basic laboratory skills, including understanding and use of modern instrumentation and computers
• Development of critical scientific thinking
• Ability to retrieve and organize scientific information
• Ability to apply scientific methodology to qualitative and quantitative analysis of physical phenomena
• Ability to present clear written and oral accounts of scientific results

**Preparation for the Major**

**Required:** Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 18L; 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, 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](https://admissions.ucla.edu/transfer/admission-guide) for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Physics 105A, 110A, 110B, 112, 115A, 115B, 115C, M180C, C187A, C187B; either course 144 or C186; three additional upper-division elective courses selected from one group or among the three groups.

**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:

• Demonstrated mastery of the fundamental principles and applications of classical mechanics, electricity and magnetism, quantum mechanics, statistical mechanics, and thermodynamics
• Demonstrated mastery of the associated necessary mathematical skills in differential equations, analysis, and linear algebra
• Demonstrated mastery of a specialized area of physics of choice, such as condensed matter or plasma physics
• Demonstrated proficiency in basic lab skills, including understanding and using modern instrumentation and computers
• Development of critical scientific thinking
• Ability to retrieve and organize scientific information
• Ability to apply scientific methodology to qualitatively and quantitatively analyze a wide variety of physical phenomena
• Ability to present clear written and oral accounts of old and new scientific results

**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](https://admissions.ucla.edu/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 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, 188A; (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:

- Demonstrated mastery of the fundamental principles and applications of classical mechanics, electricity and magnetism, quantum mechanics, statistical mechanics, and thermodynamics
- Demonstrated mastery of the associated necessary mathematical skills in differential equations, analysis, and linear algebra
- Demonstrated proficiency in basic lab skills, including understanding and using modern instrumentation and computers
- Development of critical scientific thinking
- Ability to retrieve and organize scientific information
- Ability to apply scientific methodology to qualitatively and quantitatively analyze a wide variety of physical phenomena
- Ability to present clear written and oral accounts of old and new scientific results

Preparation for the Major

Required: Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4A, 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 intended 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 nontechnical 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 nuclei 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 biology but includes some chemistry, geology, and physics. Selected topics treated in some depth, but with little or no formal mathematics. P/NP or letter grading.


7. Astronomy and Media. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Designed to help nonmajors develop skills to continually learn about science through media. Discussion of research currently in media, including meteor impacts, greenhouse effect, NASA, cosmology, and extraterrestrial life. Investigation of forces that influence science reporting. 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.

81. Astrophysics I: Stars and Nebulae. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, and Physics 1A or 1AH. Open to qualified sophomore and upper-division students. Survey of our knowledge about stars: their distances, masses, luminosities, temperatures, and interrelations between these parameters. Methods and importance for astrophysics. Variable stars. Planetary and gaseous nebulae. P/NP or letter grading.

82. Astrophysics II: Stellar Evolution, Galaxies, and Cosmology. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, and Physics 1A or 1AH. Recommended: course 81, Physics 1B and 1C (or 1BH and 1CH). Open to qualified sophomore and upper-division students. Basic principles of stellar structure and evolution. Red giants, white dwarfs, novae, supernovae, neutron stars, and black holes. Pulsars and galactic X-ray sources. Milky Way galaxy and interstellar medium. Extragalactic astronomy: galaxy clusters, active galactic nuclei, and quasars. Introduction to cosmology: Hubble law, thermal history of Big Bang, and earliest moments of universe. P/NP or letter grading.

88A-88Z. Lower-Division Seminars. (2 each) Seminar, two hours. Limited to freshmen. Varied astronomical and physical processes of evolution; discussion of how over billions of years, basic mechanisms of cosmic evolution have transformed universe from fiery origin at Big Bang into abode for intelligent life. P/NP or letter grading.

88A. Cosmic Evolution. (2) Seminar, two hours. Limited to freshmen. Varied astronomical and physical processes of evolution; discussion of how over billions of years, basic mechanisms of cosmic evolution have transformed universe from fiery origin at Big Bang into abode for intelligent life. P/NP or letter grading.
Upper-Division Courses


111. The Origin of the Elements. (2 to 4) Lecture or seminar, one or two hours. Designed for graduate students. Nucleosynthesis in stars and supernovae, nuclear reactions, and the evolution of the elements from the big bang to modern times. Letter grading.

Graduate Courses


274. Interstellar and Stellar Chemistry. (4) Lecture, three hours. The chemical composition of the interstellar medium and the chemistry of stars. Letter grading.


277A-277B. Astronomy Research Project. (6–6) Tutorial, one or two hours. Designed for graduate students. Research project under direct supervision of faculty mentor. May be repeated for credit. Letter grading.


299. Student Research Program. (1 to 4) Tutorial, one or two hours. Individual contract required. May be repeated for credit. Letter grading.


470. Independent Study: Astronomy. (1 to 6) Individual study with lecture course instructor. 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.

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 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. Honor content noted on transcript. Letter grading.

190. Research Colloquia in Astrophysics. (2) Seminar, two hours. 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. May be repeated for credit. P/NP grading.

194. Research Group Seminars in Astrophysics. (1) Research group meeting, three hours. Designed for undergraduate students who are part of research group/laboratory. Discussion of research of faculty members or students with regard to understanding methodology in field and/or laboratory equipment. May be repeated for credit. P/NP grading.

197. Individual Studies in Astronomy. (2 to 4) Tutorial, three hours. Limited to seniors who have completed advanced courses in astronomy. Letter grading.

198. Honors Research in Astrophysics. (2 to 4) Seminar, two hours. Designed for seniors who have completed advanced courses in astronomy. Letter grading.

199. Directed Research or Senior Project in Astronomy. (2 to 4) Seminar, one hour. Designed for seniors in Astronomy and Physics majors. Supervised individual research or investigation under guidance of faculty mentor. May be repeated for credit. Individual contract required. Letter grading.

277A-277B. Astronomy Research Project. (6–6) Tutorial, one hour. Designed for second-year graduate students. 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.

287. Special Topics in Astronomy. (2 or 4) Seminar, one hour. Designed for departmental graduate students. Special topics in research or current problems in up-to-date research. May be repeated for credit. Individual contract required. P/NP or letter grading.


327. Cosmic Microwave Background. (2) Lecture, four hours. The cosmic microwave background as a window into early universe. Letter grading.


209. Research Topics in Astronomy. (2) Discussion, two hours. Advanced study and analysis of current topics in astronomy. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.


1CH. Physics for Scientists and Engineers: Electrodynamics (Honors). (6) Lecture/demonstration, four hours; discussion, one hour. Enforced requisites: courses 1AH or 1A, 1BH or 1B, Mathematics 32A, 32B. Enforced corequisite: Physics 5A, 5B. Electromagnetism, wave motion, light, sound, and heat, relativity, quantum mechanics, atoms, and subatomic particles. As time permits, development of theoretical and computational tools for their thesis. May be repeated at discretion of department. S/U grading.

1Q. Contemporary Physics. (2) Lecture, one hour. Survey of modern physics in which emphasis is placed on the historical development of the subject. Credit not given for both Physics 1Q and 12L. Not open for credit to students with credit for course 6CH. P/NP grading.

10L. Modern Physics Laboratory. (4) Lecture, three hours; discussion, one hour. Experiments on measurement, wave/particle dualism, wave functions, atomic and nuclear physics, radioactivity, with applications to biological and biochemical systems. P/NP or letter grading.

101. Introduction to Biophysics. (4) Seminar, three hours. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating the connections between them. Letter grading.

20L. Physics Laboratory for Scientists and Engineers: Mechanics. (5) Lecture/demonstration, four hours; discussion, one hour. Requisite: course 5A. Statics and dynamics of forces,位移, energy, including thermal energy, with applications to biological and biochemical systems. P/NP or letter grading.

4B. Physics Laboratory for Scientists and Engineers: Electricity and Magnetism. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Requisite: course 1A or 1AH, 1B or 1BH. Experiments on electric forces, fields, and potentials. Magnetic fields. Linear and nonlinear devices. Resistors, capacitors, and inductors. Modern circuits. Geometrical and physical optics. Letter grading.

24. Modern Physics Laboratory. (4) Lecture, three hours; discussion, one hour; laboratory, two hours. Experiments on measurement, wave/particle dualism, wave functions, atomic and nuclear physics, radioactivity, with applications to biological and biochemical systems. P/NP or letter grading.

108. Physical Oceanography Laboratory. (2) Laboratory, one hour; discussion, two hours. Introduction to physical oceanography. Topics may include ocean circulation, geophysical fluid dynamics, and the role of the oceans in the carbon cycle. Letter grading.

117. Elements of Quantum Mechanics and Statistical Mechanics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C or 1AH, 1BH, and 1CH. Not open for credit to students with credit for course 6CH. Global view of energy balance in our lives from point of view of physical processes. Ways in which energy is used in everyday life (heating, cooling, and in ways in which it is produced, covering all common and speculative sources of energy from fossil fuels to solar, wind, nuclear, and fusion. Fundamental physical principles and new technologies such as efficiency of thermodynamic cycles and of chemical and nuclear reactions. Quantitative estimation of amount of energy sources used in their daily life, and what physical processes could produce it. P/NP or letter grading.

121. Physics of Sustainable Energy. (4) Lecture, three hours; discussion, one hour. Survey of modern physical preparation beyond that necessary for admission to UCLA in freshman standing not required. Discussion of physical processes and their applications to energy conversion. Global view of energy balance in our lives from point of view of physical processes. Ways in which energy is used in everyday life (heating, cooling, and in ways in which it is produced, covering all common and speculative sources of energy from fossil fuels to solar, wind, nuclear, and fusion. Fundamental physical principles and new technologies such as efficiency of thermodynamic cycles and of chemical and nuclear reactions. Quantitative estimation of amount of energy sources used in their daily life, and what physical processes could produce it. P/NP or letter grading.

122. Modern Physics Laboratory. (4) Lecture, one hour; laboratory, six hours. Enforced requisites: courses 1A, 1B, and 1C or 1AH, 1BH, and 1CH. Experiments on radioactivity, scattering, Planck constant, superconductivity, superfluidity. Letter grading.

123. The 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 connections between them. Letter grading.

87. Introduction to Biophysics. (4) Seminar, three hours. Enforced requisites: courses 1A, 1B, and 1C or 1AH, 1BH, and 1CH. Biological and medical applications of biophysics. The fundamental concepts of biophysics and their applications to biological systems and to the function of the cell. P/NP or letter grading.

125. Physics for Scientists and Engineers: Waves, Electric and Magnetic Fields (Honors). (5) Lecture, four hours; discussion, one hour. Enforced requisites: course 1AH or 1A, 1BH or 1B. Electromagnetism, wave motion, light, sound, and heat, relativity, quantum mechanics, atoms, and subatomic particles. As time permits, development of theoretical and computational tools for their thesis. May be repeated at discretion of department. S/U grading.

130. Relativity and Quantum Mechanics (Honors). (5) Lecture, four hours; discussion, one hour. Requisite: course 1A or 1AH, 1B or 1BH. Fundamental physical principles and new technologies such as efficiency of thermodynamic cycles and of chemical and nuclear reactions. Quantitative estimation of amount of energy sources used in their daily life, and what physical processes could produce it. P/NP or letter grading.

131. Introduction to Biophysics. (4) Seminar, three hours. Enforced requisites: courses 1A, 1B, and 1C or 1AH, 1BH, and 1CH. Biological and medical applications of biophysics. The fundamental concepts of biophysics and their applications to biological systems and to the function of the cell. P/NP or letter grading.

284. Modern Physics for Scientists and Engineers. (4) Lecture, four hours; discussion, one hour. Requisite: course 1A or 1AH, 1B or 1BH. Fundamental physical principles and new technologies such as efficiency of thermodynamic cycles and of chemical and nuclear reactions. Quantitative estimation of amount of energy sources used in their daily life, and what physical processes could produce it. P/NP or letter grading.
bladders, insect vision, magnetic bacteria, etc., studied quantitatively using elementary mathematics and physical principles. P/NP or letter grading.

88. Lower-Division Seminar: Current Topics in Physics. (2) Limited to freshmen/sophomores. Intensive exploration of a particular theoretical or applied area in physics. Restricted to students with 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. Juries in 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. Juries in 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 12 units. Consent of instructor and minimal of 12 units (excluding this course). Honors content noted on transcript. Letter grading.

89A. Workshop: Numerical Computational Physics. (1) Laboratory, one hour. Introductory presentations on three computational software packages: Mathematica, Mathcad, and MATLAB. After some familiarization with most common software functionalities, development of student personal preferences and software proficiency. P/NP or letter grading.

89B. PEERS Collaborative Learning Workshops for Life Sciencesmajors. (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.

89X. 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 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 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), Mathematics 32B, 33A. Corequisite: Mathematics 33B. Newtoan mechanics. Energetics, Newtonian mechanics. Conservation laws, gravitational potentials, configuration functions, Kirchhoff formulation of friction theory, crystal optics, optical rotation, electro and magnetoptical effects. Additional topics of fundamental or current interest. 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. Corequisite: course 115B. Theory of atomic structure. Interaction of radiation with matter. P/NP or letter grading.

110C. Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 105A, 105B, 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, solid-state physics, architectural acoustics. P/NP or letter grading.


116. Electronics. (4) Lecture, three hours; laboratory, three hours. Alternating current circuits, transmission line circuits, transistor and IC circuits to generate, modify, and detect electrical signals, introduction to digital circuits, analysis of noise and methods to reduce its influence in electrical measurements.

117. Electronics for Physics Measurement. (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 design including circuit simulation 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), 117, Mathematics 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.

119A. Workshop: Numerical Computational Electronics. (4) (Same as Electrical and Computer Engineering 1185.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 110A or Electrical Engineering 101A. Senior-level introductory course on electronics of ionized gases and applications to materials processing, generation of coherent radiation and particle beams, and renewable energy sources. Letter grading.

120. 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 physics of elementary particles. The four basic interactions: strong, electromagnetic, weak, and gravitational. Properties of baryons 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 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 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 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.

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. Properties of noncrystalline materials; covalent, metallic, ionic, electron, 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 112 or Chemistry 110A. How physical properties of polymers can be derived from mathematical models of chains and coils. Comparison of these models with actual polymers. Study of random walk problem and used to predict mechanical characteristics of large molecules. Study of networks of polymers and polymeric fluids, with focus on their viscoelastic properties. Demonstration of polymer behavior and solutions within melts. Study of examples of more complex structures, such as polymer fractals. Consideration of applications of this work to biology, with focus on their potential role in evolution and current hypothesis on origins of life. P/NP or letter grading.

150. Physics of Charged-Particle and Laser Beams. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Physics of charged-particle and laser beams presented as a unified subject. Basic physics of charged-particle beams, covering relativistic particle motion in electromagnetic fields, acceleration mechanisms, mean 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.

M155. Energy in Modern Economy. (4) Same as Environment M155.) Lecture, three hours. Requisites: courses 1A, 1B, and 1C, or 5A, 5B, and 5C, or 6A, 6B, and 6C, Chemistry 144A or 20A, Mathematics 3A, 3B, 3C, 33A, or 120A. Study of contemporary energy systems, including nuclear energy. Consequences of our energy choices and policy for the modern world. P/NP or letter grading.

156. Nuclear and Particle 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. Acoustics 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.

M180G. Soft Matter Laboratory. (4) (Same as Chemistry M120.) Laboratory, four hours. P/NP or letter grading.

180N. Computational Physics and Astronomy Laboratory. (4) Laboratory, four hours. P/NP or letter grading. Students will work on small research projects under the supervision of faculty members in small research groups. Students will learn to write simple codes to quantify and analyze scientific data and present their results. Students will learn to write simple codes to quantify and analyze scientific data and present their results. Students will learn to write simple codes to quantify and analyze scientific data and present their results.

188A. Physics of Energy. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, 1C, or 6A, 6B, and 6C. Study of energy and energy conversion, emphasis on fundamentals of the structure of matter and energy. Topics include molecular, atomic, and nuclear physics, thermodynamics of thermonuclear reactions, quantum mechanics, and statistical mechanics. P/NP or letter grading.

188B. Special Laboratory Courses in Physics. (4) Lecture, one hour; laboratory, two hours. Limited to junior/senior departmental majors. Departmentally sponsored temporary laboratory courses such as pilot courses or those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 101A. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with facilitator 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 Study Courses. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. 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 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. 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 contract noted on transcript. P/NP or letter grading.

190. Research Colloquia in Physics. (2) Seminar, two hours. Designed to bring together students under-taking supervised tutorial research in seminar setting with one or more faculty members. Students 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.

191. Variable Topics Research Seminar: Physics and Astronomy (4) Seminar, three hours. Participating research seminar on advanced topics in physics, reading, discussion, and development of culminating project. Content varies from year to year. May be repeated for credit by petition. P/NP or letter grading.

192. Undergraduate Practicum in Physics. (2 to 4) Seminar, three hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs with guidance of faculty members in small course settings, may be repeated for credit. 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 Physics 1A, 1B, 1C, 5A, 5B, or 5C, or 131, 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 instructor. With instructor guidance, students apply pedagogical principles based on current education research, assist with the development of innovative instructional materials, and receive frequent, formative feedback on their teaching. P/NP or letter grading.

192S. Introduction to Collaborative Learning Theory and Practice. (1) Seminar, one hour. Requisite: one course from Physics 1A, 1B, 5A, 5B, 5C, and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructor.
which collaborative learning theory is practiced and refined under supervision of instructors. Limited to sophomores/juniors/seniors. Training seminar for under-graduate 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. Students practice communication skills with frequent assessment of and feedback on progress. Letter grading.

193. Journal Club Seminars: Physics, (2) Seminar, one hour. Limited to undergraduate students. Seminars are linked to speaker-series seminars offered by department on weekly basis. Supplemental reading from literature on speaker's topics, as well as active participation and discussion to understand what kind of questions modern-day physicists actually ask and how they go about answering them. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Physics and Astronomy. (1) Research group meeting, one hour. Designed for undergraduate students who are part of research group/laboratory. Discussion of research by faculty members or students with regard to understanding methodology in field and laboratory equipment. May be repeated for credit. P/NP grading.

196. Research Apprenticeship in Physics. (2 to 4) Lecture, three hours. Directed individual study with scheduled meetings to be arranged between faculty member and student. Signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP grading.

197. Individual Studies in Physics. (2 to 4) Tutorial, three to six hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198. Honors Thesis in Physics. (2 to 4) Tutorial, 12 hours. Limited to juniors/seniors with overall 3.0 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 Physics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised independent 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

201Q. Modern Physics Research Areas. (2) Review of modern physics research areas, with emphasis on those actively pursued at UCLA. S/U grading.


213B. Advanced Atomic Structure. (4) N-j symbols, continuous groups, fractional parentage coefficients, n electron systems.


215C. Quantum Statistical Mechanics and the Many Body Problem. (4) Lecture, three hours. Classical methods for interacting systems; quantum field theory techniques in statistical mechanics; Green's function approach; Coulomb gas; imperfect Bose gas; electron/phonon interaction; superconductivity; phase transitions; theory of Fermi liquid. S/U or letter grading.


224. Introduction to Strong Interaction. (4) Lecture, three hours. Evidence, strangeness, and strong interaction; particularly as exemplified in nucleon/nucleon and pion/nucleon systems. Isospin, scattering matrix, density matrix and polarization, properties of pions, one pion exchange potential, phase shift analysis. S/U or letter grading.


230A-230B-230C. Quantum Field Theory. (6–6–6) Lecture, four hours. Requisites: courses 221A, 221B, 221C. Modern quantum field theory, including free and interacting field quantization, operator and path integral formulation, renormalization group methods, quantum field theory, effective field theory methods and chiral Lagrangians, conformal field theory, and topological aspects of anomalies. S/U or letter grading.

231A. Methods of Mathematical Physics. (4) Lecture, three hours. Not open for credit to students with credit for Mathematics 266A. Linear operators, review of functions of a complex variable, integral transforms, partial differential equations. S/U or letter grading.

232. Quantum Field Theory. (4) Lecture, four hours. Requisites: courses 221A, 221B, 221C. Topics in modern quantum field theory, including solitons, instantons, and other topological defects, large N methods, finite temperature field theory, lattice field theory, effective field theory methods and chiral Lagrangians, conformal field theory, and topological aspects of anomalies. S/U or letter grading.


232A-232B. Relativity. (4–4) Special and general theo- ries, with applications to elementary particles and astrophysics.

232C. Special Topics in General Relativity. (4) Lecture, four hours. S/U or letter grading.


236. Geometry and Physics. (4) (Same as Mathematics M231.) Lecture, three hours. Interdisciplinary course on topics at interface between physics quantum fields and superstrings and mathematics of differential and algebraic geometry. Topics include supersymmetry, Seiberg/Witten theory, conformal field theory, Calabi/Yau manifolds, mirror symmetry and duality, integrable systems. S/U grading.

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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, Radiation 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 engaging in research and development of diagnostic equipment. In government agencies, biomedical physicists are involved in the formulation and enforcement of regulations applied to the use of radiation in health care delivery.

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 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

199. 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. Requisite: 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. Requisite: course 216. Overview of physical principles 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. Production of X rays, 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 advances in digital 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, ultrasonography, 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 205. Hands-on experience in planning and delivering treatment planning and radiation therapy equipment. S/U or letter grading.

209. Image and Signal Processing for Biomedicine. (4) Lecture, discussion, one hour. Recommended prerequisites: Mathematics 155, Program in Computing 10A. Study of image segmentation, feature extraction, object recognition, classification, and visualization with biomedical applications. Topics include region-growing, edge detection, mathematical morphology, clustering, neural networks, and volume rendering in lectures, case studies, and programming projects for various treatment protocols.

211. Medical Ultrasound. (4) Lecture, two hours; laboratory, one hour. Laboratory projects to provide students with introduction to field. One oral and one written presentation required. S/U grading. 220A-220D. Laboratory Rotations in Biomedical Physics. (2-2) Laboratory, two hours. Laboratory projects to provide students with introduction to field. One oral and one written presentation required. S/U grading.


211. Medical Ultrasound. (4) Lecture, two hours; laboratory, one hour. Preparation: one calculus course. Production of real-time ultrasound images, transducer modeling and design, Doppler and color flow instrumentation, biohazards of ultrasound, ultrasound phantom design, and ultrasound tissue characterization techniques. Laboratory included. S/U or letter grading.

213. Quantitative Autoradiography. (4) Lecture, three hours; discussion, one hour. Application of quantitative autoradiography for estimating brain and heart functions. Topics include 2-deoxyglucose method for metabolic rate; iodotyrosine method for blood flow; amino acid method for protein synthesis; quantitative receptor autoradiography; neuroanatomy and neurophysiology of autoradiogram and PET scan interpretation. S/U or letter grading.


215. Breast Imaging Physics and Instrumentation. (4) Lecture, three hours; laboratory, two hours. Requisite: course 205. Special requirements of mammography, mammography equipment, mammography x-ray units, and mammography equipment. Syntactic biostatics units, cost/benefit controversy of screening mammography, mammography and computed tomography, mammography, mammography x-ray units, and mammography equipment.


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 computer-based statistical concepts, data analysis, and experimental design within biomedical physics. Applications of 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 microscopy, molecular imaging, radiography, CT, MRI, ultrasonography, PET, and SPECT. Letter grading.

219. 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 imaging, focusing on hardware Bloch equations, analytic expressions, image contrast mechanisms, spin and gradient echoes, Fourier transform imaging methods, structure of pulse sequences, and various scanning parameters. Introduction of 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 oral and one written presentation required. S/U grading. 220A. Biophysics; 220B. Medical Imaging; 220C. Therapeutic Radiobiology and Experimental Radiation Therapy.

221. Applied Health Physics. (4) Lecture, three hours; discussion, one hour. Requisite: course 216. Basics of radiation safety as applied to medical applications. Introduction to all regulatory issues pertaining to medical uses of radioactivity. Letter grading.


223. Seminar: Radiation Biology. (4) Seminar, four hours. Exploration of physiologic and molecular mechanisms that impact on response of normal and malignant tissues to ionizing radiation, with particular emphasis on critical and high in-depth analysis of approaches through which such responses can be modified in therapeutic setting. Understanding of rationale for integrating biological information into process of treatment planning and delivery. S/U grading.

225. Contrast Mechanisms and Quantification in Magnetic Resonance Imaging. (4) Lecture, four hours. Requisite: course M219. Introduction to magnetic resonance contrast mechanisms and quantification techniques in magnetic resonance imaging. Topics include exogenous and endogenous contrast mechanisms, measuring tissue perfusion and permeability, advanced diffusion and q-space analysis, chemical exchange, chemical shift, relaxation, and relaxometry. Letter grading.

226. Human Disease: Current and Future Role of Biomedical Physics. (4) Lecture, three hours; discussion, one hour. Present and future roles of biomedical physics in diagnosis and treatment of human disease, with focus on interdisciplinary nature of this field. Exploration of two diseases in depth with detailed description of roles of physics-based diagnostic imaging and therapeutic options for each disease. Description of current and future technologies, as well as techniques that exploit interaction between diagnosis and therapy. Letter grading.

229. Advanced Topics in Magnetic Resonance Imaging. (4) (Formerly numbered 2219.) (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) techniques. Beginning and understanding of developments that have had high impact on field, involve novel pulse sequence design or image reconstructions, and enable imaging of anatomy or function in ways that pass beyond the capabilities of any modality. Topics include in-depth sequence simulations, RF pulse design, rapid image acquisition, parallel imaging, compressed sensing, image reconstruction and processing, motion encoding and compensation, chemical-shift imaging and understanding, and understanding/avoiding artifacts. Programming exercises in MATLAB to provide hands-on experience. Letter grading.

230. Computed Tomography: Theory and Applications. (4) (Same as Biometrics M230.) Lecture, four hours. Computed tomography is three-dimensional imaging technique that is widely used in radiology and is becoming active research area in biomedicine. Basic principles of computed tomography (CT), various reconstruction algorithms, special characteristics of CT, various multidisciplinary 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 planning and imaging techniques utilized in radiation therapy. Topics include clinical treatment planning work flow, general planning principles and strategies, and specific considerations for various treatment 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.

232. 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 techniques, instrumentation, 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. Exploration of technologies for synthesis and production and analysis. Areas of focus are (1) radiochemistry with fluoride-18 and other isotopes, (2) technologies 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, radiopharmaceutical development, in vivo in vivo imaging methods. Evolution of chemical and biological technologies for synthesis automation and production, and preparation of clinical grade doses (as prerequisite for clinical translation of novel molecular imaging tracers). Lectures cover fundamental concepts, and are accompanied by practical sessions that provide hands-on training with technologies and methods used in routine synthesis, synthesis optimization, analysis (and quality control testing), and in vivo and in vivo evaluation of PET probes. S/U or letter grading.

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289. 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. Strong 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.

286. Image Registration Techniques. (4) Lecture, four hours. Preparation: strong 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, jittered event-related experimental designs, parallel receiver MR imaging, integrated electrophysiological and image acquisition. S/U grading.

495. Special Studies in Biomedical Physics. (4) Seminar, two hours; laboratory, 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.

597. 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.

598. Research and Preparation of MS Thesis. (4 to 12) Tutorial, to be arranged. Two 598 courses (or 598 and 599 combined) may be applied toward MS degree requirements. May be repeated. S/U grading.


Physiology

David Geffen School of Medicine

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Physiology 310-825-0481

E-mail contact

Stephen C. Cannon, MD, PhD, Chair
Thomas J. O’Dell, PhD, Executive Vice Chair

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-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 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 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 Neural 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.

299. 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 Examinations. (4) Tutorial, to be arranged. May not be applied toward MS degree requirements. May not be repeated. S/U 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 Neural 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.

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299. 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 Examinations. (4) Tutorial, to be arranged. May not be applied toward MS degree requirements. May not be repeated. S/U grading.


**Political Science**
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Barbara Geddes, PhD, Chair

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- Susanne Lohmann, PhD
- Kirstie M. McClure, PhD
- Barry O’Neill, PhD
- Karen J. Orren, PhD
- Anthony R. Pagden, PhD
- Davide Panagia, PhD
- Efren O. Pérez, PhD
- Mark A. Peterson, PhD
- Daniel N. Posner, PhD (Coleman Professor of International Development Studies)
- Ronald L. Rogowski, 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
- Lynn Vavreck Lewis, PhD (Marvin Hoffenberg Professor of American Politics and Public Policy)
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- James D. DeNardo, PhD
- Leonard Freedman, PhD
- Robert S. Gerstein, PhD
- Edward Gonzalez, PhD
- Edmond Keller, PhD
- Carole Pateman, DPhil
- David C. Rapoport, PhD
- Raymond A. Rocco, PhD
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- Richard L. Sklar, PhD
- Marc Trachtenberg, PhD
- David A. Wilson, PhD
- Charles E. Young, PhD

**Associate Professors**
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- Scott C. James, PhD
- Leslie N. Johns, PhD
- Natalie Masuoka, PhD
- Margaret E. Peters, PhD
- Michael F. Thies, PhD
- Robert F. Trager, PhD

**Assistant Professors**
- Graeme D. Blair, PhD
- Erin K. Hartman, PhD
- Chad J. Hazlett, PhD
- Eric Min, PhD

Christopher N. Tausanovitch, PhD

**Adjunct Assistant Professor**

James A. Dessevaux, PhD

**Scope and Objectives**

The undergraduate major in the Department of Political Science aims to provide students with understanding of basic political processes and institutions as they operate in different national and cultural contexts. It also covers the interaction between nation states, the changing character of the relations between citizens and governments, and the values and criteria by which the quality of political life is judged. The program may be individually focused to serve the needs of the liberal arts major; the student seeking preparation for graduate work in political science, public administration, law, and other professional fields, and the student preparing for specialized roles in political and public organizations.

The graduate program leads to the PhD degree in Political Science (a master’s degree may be earned in the process of completing PhD requirements). It is designed to give students a strong foundation in the discipline while enabling them to acquire additional skills for advancing their professional careers.

**Undergraduate Study**

**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 completion of preparation for the major courses, they need to petition to enter the major in the Undergraduate Office, 4269 Bunche Hall.

**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, with 90 or more units must complete 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 to comprise the total of 10

**Courses**

Courses 191H, 195CE, 19B, 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.
Faculty of Arts and Sciences

Courses offered by the Department of Political Science

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 hours; discussion, one hour. Not open for credit to students with credit for course 6R. 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 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 hours; discussion, one hour (when scheduled). Not open for credit to students with credit for course 6R. Course 6R is required of all students concentrating in Field II. 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.

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 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. World Politics. (5) Lecture, three hours; discussion, one hour. Required of all students concentrating in Field II. Introduction to problems of world political P/NP or letter grading.

20. 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 constitutional principles, governmental institutions, and political 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 50R. Not open for credit to students with credit for course 50R. Designed for juniors/seniors. Exploration and critical analysis of major thinkers such as Machiavelli, Montaigne, Hobbes, Locke, Rousseau, Smith, Condorcet, and Kant and questions such as representation, property, autonomy, and political economy. P/NP or letter grading.

60. Ethics and Governance. (5) Lecture, three or four hours; discussion, one hour (when scheduled). To study question of can’t we all just get along, students play games of cooperation, coordination, collaboration, and competition and examine whether and how diversity, disagreement, and democracy influence game play, to understand under what conditions diversity feeds productively or counterproductively into group effort. Development of self- and other-awareness of emergent properties of disagreement to appreciate how different kinds of social organization promote or undercuts potential for 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.

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 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

M105. Economic Models of Public Choice. (4) (Same as Economics M135.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation for analysis of 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 free-rider problem, voting and majority choice, demand revelation, and political bargaining. 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). Designed for juniors/seniors. Introduction and critical analysis of major thinkers such as Plato, Aristotle, Thucydides, Augustine, Aquinas, Machiavelli, and More and questions such as forms of government, citizenship, justice, happiness, rhetoric, religion, emotion. 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. Exploration and critical analysis of major thinkers such as Machiavelli, Montaigne, Hobbes, Locke, Rousseau, Smith, Condorcet, and Kant and questions such as representation, property, autonomy, and political economy. P/NP or letter grading.

M114. Legal Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration and critical analysis of major thinkers such as Bentham, de Tocqueville, Hegel, Mill, Marx, Nietzsche, Arendt, and Foucault and questions such as alienation, power, participation, and difference. P/NP or letter grading.

M115. 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. Intense and individualized examination of politically significant films with respect to central issues in political theory such as power and truth in light of relevant political theorists. P/NP or letter grading.

M114A. American Political Thought I, 1620 to 1865. (4) (Formerly numbered 114.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical analysis of American political thinkers from Puritan period to Civil War. P/NP or letter grading.

M114B. American Political Thought II, 1865 to Pres. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 10. Designed for juniors/seniors. Study of ways in which political thinkers 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.

115D. Diversity, Disagreement, and Democracy: Can’t We All Just Get Along? (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Can’t we all just get along? Study of diversity, disagreement, and democracy. Diversity covers individual differences, cultural differences, and human universals; groupism, factionalism, and identity politics; and one-world ethics. Disagreement includes moral, ideological, and party-political disagreement; resolvable and irresolvable kinds of disagreement; groupthink and polarization; herding and collective argumentation. Democracy stands for political mechanisms of information aggregation; political mechanisms to resolve
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115E. Humanist Practice and Civic Culture. (4) Seminar, three hours. Enforced requisites: courses 10, M115C. Preparation for juniors/seniors. Exploration of connection between humanist practices (philosophy, sociability, science, republican self-fashioning) and promotion of civic ethos—culture that would promote flourishing civic society. How has humanism informed our Western understanding of republicanism and civic responsibility? What aspects of our humanist heritage 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 Manist political theory. P/NP or letter grading.

116B. Continental Political Thought. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of im- portant 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 hours; discussion, one hour (when scheduled). Designed for 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. Letter grading.

118. Wars of Peace and Peace from Conquest of America to Declaration of Human Rights (1948). (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Designed for juniors/seniors. Examination of theories of international relations and international law, with special emphasis on warfare, from conquest of America to end of World War II. 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. 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 political thought and religion have 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. Survey of factors and forces entering into formation and implementation of American foreign policy, with special emphasis on contemporary problems. 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. Study of formation of American foreign policy with respect to individual cases. Consult Schedule of Classes for topics to be offered in specific term. P/NP or letter grading.

122A. World Order. (4) Lecture, three or four hours; discussion, one hour (when scheduled). 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). Re- commended 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 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). Requisite: course 20. Designed for juniors/seniors. Analysis of the international economy and global financial systems. P/NP or letter grading.

124C. Politics of Latin American Economic Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Interaction of international and domestic factors in political and economic evolution of Latin America. P/NP or letter grading.

125A. 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. Nuclear arms race; relationship between deterrence doctrines and nuclear war; roles of technology and ideology; nuclear proliferation; outer space. P/NP or letter grading.

126. Peace and War. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Review and research on causes of war and conditions of peace.

127A. Atlantic Area in World Politics: Western Eu- rope. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. External relations of United Kingdom, West Germany, France, Italy, and other European member of NATO, in regard to European security in context of Atlantic Alliance. P/NP or letter grading.


128B. International Relations of Post-Communist Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: courses 20, 129A. Designed for juniors/seniors. Survey of foreign policy of post-Communist Russia, with special emphasis on Russia's relations with NATO, the former communist states of East Central Europe, China, and the Commonwealth of Independent States.

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. Use of arms control and arms race. P/NP or letter grading.

132A-132B. International Relations of Middle East. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/se- niors. P/NP or letter grading. 132A. Requisite: course 20. Designed for juniors/seniors. Study of Middle East political and economic relations. P/NP or letter grading.

Field III: American Politics

140A-140B-140C. National Institutions. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Required for juniors/seniors. 140A. Congress. Study of those factors which affect character of the legislative process and capacity of representative institutions to govern in contemporary society. 140B. The Presidency. Study of nature and problems of presidential leadership, emphasizing impact of the bureaucracy, congress, public opinion, interest groups, and parties on the presidency, and national policy-making. 140C. Su- preme Court. Introduction to American constitutional development and role of Supreme Court as interpreter of the U.S. Constitution. Reading of Supreme Court cases as well as various historical and current commentaries.

M141A-141E. Electoral Politics. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

M141A. Political Psychology. (4) (Same as Psychology M138.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Use of political psychology in understanding of political behavior, political socialization, personality and politics, racial conflict, and psychological analysis of public opinion on these issues. P/NP or letter grading.

141B. Public Opinion and Voting Behavior. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for ju-
141C. Political Behavior Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: courses 6, 40, 141B. Designed for juniors/seniors. Advanced course in use of quantitative methods in study of political behavior, especially in relation to structural and cultural aspects of American political institution and its development over time, or interaction of American politics and some aspect of culture and society. Assessment of broader political environment of politics, its points of intersection for change. Possible topics include party development, Constitution, business regulation, and policy and religion. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. 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 or several different uses of violence in revolutionary process: demonstrations, mass uprisings, coup d ’etat, assassination, and terrorism. P/NP or letter grading.

151A-151B-151C. African Politics. (4–4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Letter grading.

151A. Government and Politics of Africa. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Letter grading.

151B. Political Economy of Africa. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Letter grading.

151C. Special Topics in African Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Letter grading.

153A. Comparative Government and Politics of Western Europe/West European Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for juniors/seniors. Letter grading.

154A-154B. Government and Politics in Latin America. (4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of governmental and political development, organization, and practices. P/NP or letter grading. 154A. States of Middle America. Enforced requisite: course 50 or 50R. 154B. States of South America.
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. P/NP or letter grading.

15B. Southeast Asian Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Lecture on political developments in major Southeast Asian states. Use of comparative analysis to address major problems confronting region, including democratization, economic growth, drug trade, deforestation, and security threats. Letter grading.

159A-159B. Government and Politics of China. (4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors:

159A. Chinese Revolution and Age of Mao Zedong. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of modern Chinese politics from decline of Manchu dynasty and rise of revolutionary nationalism to death of Mao Zedong, with emphasis on socioeconomic and political changes and political dynamics of revolution in modern China.

159B. China in Age of Reform. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Discussion of major institutional structures such as presidencialism versus parliamentary government, unicameralism versus bicameralism, two-party versus multiparty systems, federal versus unitary systems, plurality versus proportional electoral systems, etc. Method of analysis is rational choice (political actors are assumed to optimize their desired institutional goals and action of other actors). Result is that institutions affect political outcomes in systematic ways. P/NP or letter grading.

160. Government and Politics of Japan. (4) Lecture, three or four hours; discussion, one hour (when scheduled). 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 from legislative, electoral, and judicial politics. P/NP or letter grading.

161. Legislative Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of negotiation and bargaining in different contexts. 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 legislative settings. P/NP or letter grading.

162. Strategy and Conflict. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced requisite: course 30. Designed for juniors/seniors. Intermediate topics in game theory applied to political problems, with special attention to strategic consequences of incomplete information and information asymmetries. P/NP or letter grading.

163. Colonialism, Discourse, and Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Structure and operation of contemporary Japanese political system, with special attention to domestic political forces and problems.

164. 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 mass mobilization; Nazi economic policy (Toozes, 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.

165. Islam and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Religious and spiritual foundations of Islamic institutions; legitimacy of historical and contemporary Islamic regimes, movements, and ideologies; political strategies of Islamic activism. P/NP or letter grading.

166. Comparative Constitutional Design. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparison of major institutional structures such as presidencialism versus parliamentarism, unicameralism versus bicameralism, two-party versus multiparty systems, federal versus unitary systems, plurality versus proportional electoral systems, etc. Method of analysis is rational choice (political actors are assumed to optimize their desired institutional goals and action of other actors). Result is that institutions affect political outcomes in systematic ways. P/NP or letter grading.

M167C. Political Economy of Development. (4) (Same as International Development Studies M120.) Lecture, three or four hours; discussion, one hour (when scheduled). 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 and others have not. Explanation and review of logic behind most important arguments that have been advanced to account for differences in rates and levels of economic development. May be applied toward either Field IV or V. Letter grading.

167D. 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.

168. Comparative Political Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: two courses in Field IV, or course 50 and one course in Field IV. Designed for juniors/seniors. Major approaches to study of comparative politics. Concepts and methodology of comparative analysis. Letter grading.

169. Special Studies in Comparative Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: two courses in Field IV. 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.

170. Aims of Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. How do social and political movements convince people to participate? Consideration of various theoretical perspectives, including game-theoretic, social network, structural, and identity approaches, illustrated by case studies. P/NP or letter grading.

171A. Collective Choice and Majority Rule. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. 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 from legislative, electoral, and judicial politics. P/NP or letter grading.

Field VI: Race and Ethnic Politics

M180A. African American Political Thought. (4) (Same as African American Studies M114C and Labor and Workplaces Studies M114C.) Lecture, three or four hours; discussion, one hour (when scheduled). Intensive introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been applied and interpreted in African American political movements, and 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.

181A. Politics of Latino Communities. (4) 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. Focus on understanding relationships of power and interaction between institutional contexts of Latino life, such as economy, state, and cultural system on one hand and structure of everyday life in Latino households, neighborhoods, and communities on other. P/NP or letter grading.

M181B. U.S. Latino Politics. (5) (Formerly numbered 181B.) (Same as Chicana and Chicano Studies M155C.) Lecture, four or five hours; discussion, one hour (when scheduled). Examination of history and contemporary role of Latinos in U.S. 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 legislation; responses by Latinos today, with discussion of role of Latino vote in recent presidential elections. P/NP or letter grading.
M182. Ethnic Politics: African American Politics. (4) Same as Asian American Studies M141E. Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level course or one upper-division course in race or ethnicity from history, psychology, or sociology; course 40. Recommended requisite: course 40. Designed for juniors/seniors. Emphasis on dynamics of minority group politics in U.S., touching on conditions facing racial and ethnic groups, with black Americans being primarily case study. Three primary objectives: (1) to provide descriptive information about social, political, and economic conditions of black communities, (2) to analyze important political issues facing black Americans, and (3) to sharpen students' analytical skills. P/NP or letter grading.


M184B. Black Experience in Latin America and Caribbean II. (4) Same as African American Studies M154D.) 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 within Latin America populations of 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 prerequisite: course 40. Recommended requisite: course 40. Designed for juniors/seniors. Intensive examination of one or more special problems related to race, ethnicity, and politics in political science. Sections offered on topics of interest arising 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 corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty member to select USIE 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: 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 as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth, through papers, books, readings, or other materials. May be repeated for maximum of 4 units. Individual honors contract required. Honors content 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 or other courses. Designed to encourage students' own work related to 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 theses. Led by one supervising faculty member. P/NP grading.

191A-191F. Variable Topics Research Seminars for Majors. (4 each) Seminar, three hours. Preparation: two upper-division courses in field in which seminar is offered. Limited to junior/senior Political Science majors with 3.25 grade-point average in upper-division political science courses. Consult Schedule of Classes for topics to be offered in specific term. Reading, discussion, and development of culminating project. May be applied toward distribution or concentration requirement. May be repeated for credit. P/NP or letter grading. 191A, Political Theory; 191B, International Relations; 191A, Comparative Government; 191E, Methods and Models; 191F, Race, Ethnicity, and Politics.

M191DC. CAPPPP Washington, DC, Research Seminars. (8) Same as Communication M191DC, History M191DC, and Sociology M191DC.) Seminar, three hours; laboratory, 24 hours. Limited to CAPPPP Program students. Seminars for undergraduate students in Center for American Politics and Public Policy for project designed and executed by original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviews, experiments) 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 191 series. 3.3 grade-point average in upper-division political science courses, eligibility for Letters and Science honors. Required of all students who wish to write honors theses. Students define their research topic, select research questions, design appropriate sources of information, prepare research proposal, find thesis director, begin their research, and submit progress reports or preliminary drafts. Class sessions emphasize critical and constructive discussions of students’ topics, methods, and problems in research, as well as general consideration of political science research topics and methods of current or continuing interest. May be repeated for credit. Letter grading.

193. Journal Club Seminars: Political Science. (1) Seminar, two hours. Limited to undergraduate students. Discussion of readings selected from current literature of field. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit. P/NP grading.

193CE. Community and Corporate Internships in Political Science. (4) Seminar, two hours. Limited to juniors/seniors. Development 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. Generating papers or project required. May not be repeated for credit. Limited to 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. Basic topics in probability, the mathematical framework developed to help us think systematically and logically in face of uncertainty. Letter grading.

200B. Regression Analysis for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. Requisite: course 200A. Preparation: prior exposure to coding in R. Introduction to regression design and regression analysis. Basic tools of statistical inference and application to practice of regression analysis. Emphasis on relationship of these statistical tools in identifying causal inferences; prediction and description also covered. 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 R. Graduate courses in formal statistical language R. SKU 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, multivariate calculus, basic linear/normal matrices. Clarification of conditions under which estimates made using non-experimental data can be given causal interpretation. Strength and maximizing credibility of causal claims made from non-experimental evidence. Designs and methods, including experiments, matching, regression, panel etc., with comparison of experimental 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 community, government, or nonprofit setting coordinated through Center for Community Learning. 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. 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. CAPPPP Washington, DC, Internships. (4) (Same as History M195DC and Sociology M195DC) Tutorial, four hours. Limited to junior/senior CAPPPP Program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor to provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NP grading.

198. Honors Research in Political Science. (1 to 4) Tutorial, two hours. Requisite: course 191H. Limited to juniors/seniors. Development 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. Generating papers or project required. May not be repeated for credit. Limited to 16 units. Individual contract required. P/NP or letter grading.
methods, difference-in-differences, synthetic control methods, instrumental variable estimation, regression discontinuity designs, and sensitivity analyses. Reinforcement of some basic skills from probability and statistics. S/U or letter grading.

200D. maximin Likelihood for Social Science. (4) Seminar, three hours; field work, eight hours. Introduction 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. Problem in Design for Social Science. (4) Seminar, three hours; field work, eight hours. Preparation: familiarity with statistical methods 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 for other modes of experimental research, 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. Not open for credit to students with credit for course 200Y. Practice in applying statistical techniques to political science data. S/U or letter grading.

200Y-200Z. Data Analysis Workshops. (2–2) Seminar, two hours. Enforced requisite: course 200C. Course 200Y is enforced requisite to 200Z. 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.

21A. Introduction to Formal Political Analysis. (4) Seminar, three hours. Survey of formal political theory to enhance literacy and provide analytical tools without presupposing 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.

21B. Theory of Collective Choice. (4) Seminar, three hours. Recommended preparation for political science students. Open to 220A. Open to any student of politics, economics, philosophy, or mathematics with ability for deductive reasoning. Introduction to abstract, deductive study of voting systems and other collective decision processes. Axiomatic method applied to politics and economic theory, concept of rationality, and agenda control, choice-set or solution concepts.


23B. Economic Theory and Methods for Political Science II. (4) Seminar, three hours. Preparation: course 223A. 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 and allocation mechanisms, collective action, spatial models, structure-induced equilibrium, and information asymmetries.

234A. Political Theory 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, bureaucracy, interest groups, and party competition. Designed to help students become informed consumers of game-theoretical literature in political science. S/U or letter grading.

234B. Game Theory in Political Science. (4) Seminar, three hours; field work, eight hours. Preparation: course 204A. Intermediate game theory course. Topics include games of incomplete information, cheap talk games, and bargaining theory. Applications concern political and public goods, collective action, institutional arrangements, bargaining, conflict, and communication. Designed to help students use game theory in their research. S/U or letter grading.

234C. Game Theory in Politics III. (4) Seminar, three hours; fieldwork, 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, conflict mediation, and political transitions. Designed to help students use advanced game theory in their research. S/U or letter grading.

230B. Topics in Applied Game Theory. (4) (Same as Economics 211S.) Lecture, three hours. Preparation: calculus or introductory probability. Designed for graduate economic and political science students. Survey of applications of game-theoretical concepts to models of bargaining, oligopoly, cost allocation, and voting power. S/U or letter grading.

230D. Multivariate Analysis with Limited Variables. (4) (Same as Psychology 252 and Statistics M242.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be 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-means factor analytic models. Structural equation models, including path and simultaneous equation models. Parameter estimation, hypothesis testing, and other statistical issues. Computer implementation. Applications. S/U or letter grading.

230E. Bayesian Econometrics. (4) (Same as Economics M232A.) Lecture, three hours. Requisites: Economics 231A, 231B. Subjective probability, introduction to decision theory, Bayesian analysis of regression, sensitivity analysis, simulation of economic models, criticism. May be repeated for credit. S/U or letter grading.

209. Special Topics in Formal Theory and Quantitative Methods. (4) Seminar, three hours. S/U or letter grading.

Political Theory

210A-210B. Political Theory Field Seminar 1, 2. (4–6) Lecture, three hours; field work, eight hours. S/U or letter grading. 210A. Exploration of major texts and issues in political theory. 210B. Further exploration of major texts and issues in political theory.

211. Seminar: Political Theory. (4) Seminar, three hours. S/U or letter grading.

International Relations

220A. International Relations Core Seminar I. (4) Seminar, three hours. Introduction to international relations theory; main schools of thought, 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 in international relations within combination of seminar and tutorial settings. Letter grading.

222. Seminar: Strategic Interaction. (4) Seminar, three hours. A strategic approach to political science. The other person's choice by affecting his expectations of what 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 international 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. Interaction between international trade and investment and domestic political economies of both industrialized and industrializing societies.

232. International Political Economy II. (4) Seminar, three hours. Designed to develop PhD students’ skills in setting up and solving simple institutional design, political economy macro, signaling, and participation models, as well as two-level game models of domestic politics and international cooperation, with emphasis on applications in international political economy and comparative politics.
240A-240B. Seminars: Comparative Politics. (4–4)
Seminar, three hours. Course 240A is not requisite to 240B. Letter grading.

241A. African Politics. (4)
Seminar, three hours.provided by UCLA faculty, visiting scholars, and advanced graduate students. Research paper of publishable length and quality required. S/U or letter grading.

240-243B, 243C. Workshops: National Security, Foreign Policy, and International Relations (0–12).
Discussion, two hours. Preparation: successful completion of major field examinations. Course 243A is requisite to 243AB. Courses must be taken in sequence. Workshops 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. Letter grading.

242A and 242B. Seminar: Comparative Institutional Analysis. (4–4)
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, unicañeralism vs. bicameralism, two-party vs. multiparty systems, cadre vs. mass parties, and plurality vs. proportional representation. S/U or letter grading.

245. American Political Behavior. (4)
Seminar, three hours. Examination of both empirical and normative research from rich variety of perspectives for scholars in all subfields of political science as well as policy students and others interested in these issues. Consideration of topics fundamental to both democratic theory and study of American politics—public opinion; nature and purpose of elections; representa-tion; parties; and purpose of democracy as whole—through both classic political theory treatments and modern research in American political behavior. Letter grading.

246. Legislative Behavior. (4)
Seminar, three hours. S/U or letter grading.

247. American Political Institutions. (4)
Seminar, three hours. Preparation: two graduate courses in politics. S/U or letter grading.

248. Political Environment of Federal Executive. (4)
Seminar, three hours. S/U or letter grading.

249. Executive Politics and Presidency. (4)
Seminar, three hours. S/U or letter grading.

250. Politics and Economy. (4)
Seminar, three hours. S/U or letter grading.

251. Political Economy of Economic Reform. (4)
Discussion, three hours. Some familiarity with economics helpful. Principal political and economic arguments for 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. S/U or letter grading.

253. Political Change in Communist Systems. (4)
Discussion, three hours. Examination of political con-text and consequences of structural reform in Com-munist systems; theories of post-Leninist political pluralization and convergence. S/U or letter grading.

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 representation. S/U or letter grading.

255. Seminar: American Political Institutions. (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 compar-ative labor and working-class politics. S/U or letter grading.

258. Comparative Politics Proseminar. (2)

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

260A. Survey Course in American Politics: Political Parties and Electoral Process. (4)
Discussion, three hours. S/U or letter grading.

260B. Survey Course in American Politics: Ameri-can Political Institutions. (4)
Discussion, three hours. S/U or letter grading.

261A. Proseminar: Political Psychology. (4)
(Same as History M236A and Psychology M228A.) Seminar, three hours. Introduction to political psy-chology: psychobiography, personality and politics, mass attitudes and conflict, political communica-tion, and elite decision making.

261B. Mass Attitudes and Political Behavior. (4)
Seminar, three hours. Requisite: course 141B or 260A. Analysis of development and change of political atti-tudes in mass publics and their relationship to voting, protest, and violence. S/U or letter grading.

261C. Political Communication. (4)
Discussion, three hours. Broad 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.

261D. Seminar: Political Psychology. (4)
(Same as Psychology M228B.) Discussion, three hours. Requi-site: course M261A or Psychology 220A. Examination of political behavior, political socialization, racial conflict, mass political movements, and public opinion. S/U or letter grading.

261E. 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 party systems and organization. Special attention to political functions, electoral campaigns, and party cadres. S/U or letter grading.

264. Politics and Economy. (4)
Discussion, three hours. Analysis of theoretical and practical relationships between economic organization and government institutions, Development and political implica-tions of market system, banking and finance, corporate enterprise, and organized labor. S/U or letter grading.

266B. Electoral Democracy: Theory and Behav-iour. (4)
(Same as Public Policy M246B.) Seminar, three hours. Examination of both empirical and normative content from rich variety of perspectives for scholars in all subfields of political science as well as policy students and others interested in these issues. Consideration of topics fundamental to both democratic theory and study of American politics—public opinion; nature and purpose of elections; representa-tion; parties; and purpose of democracy as whole—through both classic political theory treatments and modern research in American political behavior. Letter grading.

269. Seminar: Political Behavior. (4)
Seminar, three hours. S/U or letter grading.

270. Legislative Behavior. (4)
Seminar, three hours. Analysis of major approaches to study of representa-tive institutions, with 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 Presi-dency. Special attention to theories of organization and personality and relationship between executive and other institutions and groups. S/U or letter grading.

272. Political Environment of Federal Executive. (4)
Discussion, three hours. Examination of political envi-ronment of federal executive in the U.S. Special atten-tion to executive/legislative relations. S/U or letter grading.

273. American Political Development. (4)
Discussion, three hours. National political institutions in his-torical perspective, theories of state building, state so-cietal relations, political culture. S/U or letter grading.

275. Seminar: American Political Institutions. (4)
Seminar, three hours. S/U or letter grading.

Race, Ethnicity, and Politics

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.
PSYCHIATRY AND BIOBEHAVIORAL SCIENCES

David Geffen School of Medicine
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Psychiatry and Biobehavioral Sciences
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Jennifer G. Levy, MD, in Residence
Li Li, PhD, in Residence
Matthew D. Lieberman, MD
Gerald S. Lipshutz, MD, in Residence
Edytte D. London, PhD, in Residence (Thomas P. and Katherine K. Pike Professor of Addictive Studies)
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Catherine Lord Morrison, PhD, in Residence
Nigel T. Mardain, MD, in Residence
Stephen R. Mardain, MD, in Residence (Dr. Daniel X. Freedman Administrative Professor of Academic Psychiatry)
Kelsey C. Martin, MD, PhD (Gerald S. Levey, MD, Endowed Professor)
Gary W. Mathern, MD, in Residence (Dr. Alfonsina Q. Davies Endowed Professor in honor of Paul Crandall, MD, for Epilepsy Research)
Emeran Mayer, MD
James T. McCracken, MD (Joseph Campbell Professor of Child Psychiatry)
Mario F. Mendez, MD, in Residence
David J. Miklowitz, PhD, in Residence
Norveeta G. Milburn, PhD, in Residence
Gregory A. Miller, PhD
Jeanne Miranda, PhD, in Residence
Stanley F. Nelson, MD, in Residence
Keith H. Nuechterlein, PhD, in Residence
Roel A. Ophoff, PhD, in Residence
Christina G.S. Palmer, PhD, in Residence
John C. Piacentini, PhD, in Residence
Gina R. Poe, PhD
Robert S. Pynoos, MD, in Residence
Lara A. Ray, PhD
Mary Jane Rotheram-Borus, PhD, in Residence
Steven J. Shoptaw, PhD
Jerome M. Siegel, PhD, in Residence
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.

Clinical Psychology Internship

The department offers a 12-month Clinical Psychology Internship. Students enrolled in clinical psychology doctoral programs at APA-approved universities are eligible to apply. Applications are accepted through November 1. The primary goals of the internship are to provide students with a year of intensive exposure to a wide variety of clinical and human services experiences, and to maximize the personal growth of each professional. Students interested in this certificate program should contact the program office at 37-360A Semel Institute, 310-794-5715.

Information on clinical practicums that are offered in conjunction with other educational institutions and UCLA departments may be obtained from the department office.

Psychiatry and Biobehavioral Sciences 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.

79. Applied Positive Neuroscience: Skills for Improving Productivity and Wellbeing. (8) Lecture, three hours; discussion, one hour. Not open to students with credit for Community Health Sciences 179. Intrapersonal, interpersonal, and extrapersonal contributions to wellbeing, and how activity and chemistry of key brain regions contribute to, e.g., influences of mindfulness on prefrontal cortex activity, or how oxytocin system is altered by social interaction. Students learn to recognize relationships between cognitive, social, and emotional competence for healthy development, and how to apply it to their own lives. Through neuroscience 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.

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

174. Brain and Behavioral Health: Childhood and Adolescence. (5) Seminar, three hours. Limited to junior/senior Neuroscience or 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 during childhood and adolescence. Exploration of integration of developmental psychological, genetic, and environmental exposures. Introduction to key topics (e.g., autism, mood disorders, and 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. Designed for clinicians, prior experience 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, and methods for integrating more awareness and creativity into ordinary activities. Examination of varying 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 practical 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. (8) Seminar, five hours. Limited to junior/senior Neuroscience or 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 during adulthood and aging. Exploration of integration of developmental psychological, genetic, and environmental exposures. Introduction to key topics (e.g., depression, dementia, posttraumatic stress disorder) during adulthood and aging. Research of mental health and public policy literature. Guest facilitators with expertise complement study of emerging treatment advances, applications, and barriers. Letter grading.

M181. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181, Neuroscience M130, Psychological Science M181, and Psychology M117.) Lecture, three hours. Requires: Neuroscience M101A (or Molecular, Cell, and Developmental Biology M175A or Psychological Science M180A or Psychology M117A) or Psychological Science 111A or Psychology 115. Studying brain systems involved in psychiatric symptoms and neurological disorders, including schizophrenia, depression, bipolar disorder, obsessive/compulsive disorder, and addiction. Understanding basic understanding of brain dysfunction that contribute to disorder and rationales for pharmacological treatments. P/NP or letter grading.

M182. Personal Brain Management. (4) (Formerly numbered 182.) (Same as Neuroscience M161.) Seminar, four hours. Basic overview of brain function and consideration of some management methods that exist already, and what future may hold. New methods for predicting our own futures 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 and environmental exposures. Introduction to key principles from science of behavior change, illustrating how important brain-related behavioral habits are and how difficult these can be to change and why. Coverage of series of topics that center on personal enhancement of well-being through consideration of stress management, long-term goal and value identification, mapping 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.

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 of conducting preparatory research, and begin preparation of 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 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.

197. Individual Studies in Psychiatry. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings 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. P/NP or letter grading.

199. Directed Research in Psychiatry and Biobehavioral Sciences. (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

M210. Editorial Board Apprenticeship. (2) Same as Health Policy and Management M249K.) 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 submissions and advising of editor on suitability for full review. S/U or letter grading.


M230. Communication of Science. (2) Same as Biostatistics M262.) 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, design, role of appendices. Communication with lay public. S/U or letter grading.


M234. Affective Disorders. (2 or 4) Same as Psychology M236.) Lecture, three hours. Focus on features and classification of affective disorders, with emphasis on depression, bipolar disorder, and melancholic illness. S/U or letter grading.


273. Seminar: Behavioral Neuroimmunology. (1) Same as Biostatistics M285.) Lecture, one hour; discussion, 30 minutes per month. Series of lectures presented the second Wednesday of each month throughout academic year by invited speakers. S/U grading.

M286. Summer Seminars in Psychocultural Studies. (4) Same as Psychology M236.) Seminar, three hours. Designed for graduate students. Techniques for conceptualizing, conducting, and analyzing survey research, strategies for enhancing survey research on psychosocial problems.

240. Assessment and Treatment of African American Families. (3) Same as American Studies M430.) 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 supervised evaluation and case management with African American families and children. Letter grading.

243A-243B-243C. Mental Retardation and Chronic Medical Illness. (1–1–1) Lecture, 90 minutes. Survey series on major topic areas of mental retardation and chronic medical illness, covering epidemiology, nosology, assessment, healthcare delivery systems, basic genetics, nutrition, direct care, and special deficits. Presented in interdisciplinary framework as generic information independent of discipline.

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. S/U grading.


259. Legal and Ethical Issues with Vulnerable Populations. (3) Lecture, 90 minutes; laboratory, three and one half hours. Discussion of current laws dealing with issues concerning children and mentally defective children, elderly people, philosophers; ethics, moral codes, issues, and how to resolve them. Use of videotapes and discussion of cases.


263. Clinical Pharmacology. (2) Same as Biostatistics M263 and Medicine M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (MD, DDS, DSN, or PhD). 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.

264. Health and Mental Health Disparities from a Psychosocial and Cultural Perspective. (4) Seminar, three hours. Designed for graduate and medical students, resident physicians, and juniors/seniors (with consent of instructor) interested in learning about genetic, gender, and mental health disparities. Survey course to introduce students to health disparities that exist for ethnic minorities and factors that may contribute to disproportionate prevalence rates. Review and discussion of research literature, with focus on specific diseases such as HIV/AIDS, substance abuse, depression, and breast and prostate cancer. Discussion of stereotypes and myths about healthcare of ethnic populations. Examination of psychosocial and cultural contexts as potential or contributing factors. S/U or letter grading.

M270. Neural Basis of Memory. (4) Same as Neuroscience M267.) Lecture, two hours, discussion, one hour. Anatomy, physiology, and neurobiological data integrated into models for how behavioral phenomena of memory arise. Discussion of invertebrate memory, cortical conditioning, hippocampus and declarative memory, and frontal lobes.

M272. Psychological Anthropology. (4) Same as Anthropology M267.) Seminar, three hours. Various psychological issues in anthropology, both theoretical and methodological. Areas of interest include such things as culture and theory, culture and personality, and culture psychiatry. Discussion of questions relating to symbolic and unconscious processes as they relate to culture. Topics vary from term to term. May be repeated for credit with topic change. S/U or letter grading.


275. Psychoneuroimmunology Research Seminar. (1) Seminar, one hour. Topics to be centered around current developments in psychoneuroimmunology (PNI). PNI, with emphasis on basic immunology and immunomolecular/molecular biology and role of behavioral and psychological factors on immune and aging processes. S/U grading.


281A-281B-281C. Behavioral Therapy in Educational Settings. (4–4–4) Lecture, one hour; laboratory, seven hours. Supervised classroom work with exceptional children in conducting systemic observations, administering formal assessments, and developing and carrying out individualized education plans. Emphasis on theoretical and practical background furnished through one-hour weekly lecture. S/U or letter grading.

M284A-M284B. Principles of Neuroimaging I, II. (4–4) Same as Neuroscience M284A-M284B. Lecture, four and one half hours. Preparation: competence in integral calculus, electricity and magnetism, computer programming (any language), general statistics. Required: course 292. Course M284A is requisite to M284B. Instrumental imaging methods for study of nervous system, 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 magneostimulation, near infrared imaging. Letter grading.

M285F. Functional Neuroimaging: Techniques and Applications. (3) Same as Bioengineering M284, Neuroscience M285, Physics and Biology in Medicine M285, and Psychology M278.) Lecture, three hours. In-depth examination of brain imaging, including MRI and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Strong focus on understanding of neuroimaging paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiment. S/U or letter grading.
287. Small Group Cognitive/Behavioral Interventions. (4) Lecture, three hours. Presentation of brief therapeutic interventions for adults and children at risk for suicide, depression, conduct problems, and HIV, with didactic and experiential techniques.

M288. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (Same as Community Health Sciences M294.) Lecture, four hours. Requisites: Community Health Sciences 100 and Epidemiology 100, or prior social sciences courses. Overview of social and behavioral influence both transmission and prevention of HIV/AIDS throughout the world. Letter grading.


293. Professional Development: Presentations and Preparing for Academic Interviews. (2) Seminar, two hours. Exposure to range of professional development skills essential to academic career development. Hands-on skills and practice in preparing and delivering presentations in various audiences, and preparing research and/or teaching statements for job applications. S/U 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 policy 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. Exploration of relationship between drug abuse, sexuality, and HIV/AIDS. S/U grading.

295C. (2) Seminar, two hours; discussion, one hour. Theoretical and practical aspects of 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—submitting manuscripts to journals, selecting appropriate journals, frequent reasons for journal 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 preparation process, (3) preparing/writing grants for submission to NIH, including review of components of successful applications, criteria by which applications are judged, and what to emphasize in each section, (4) grant mechanisms specifically designed for new investiga-
tion 504 of Rehabilitation Act on behalf of children with learning disabilities, behavior disorders, and mental retardation. S/U or letter grading.

**596P. Individual Studies in Psychiatry. (2 to 12) Tutorial, to be arranged. Preparation: submission of written proposal outlining course of study (to be structured by instructor and student at time of initial enrollment). Additional information and course proposal forms available in Office of Education, 38–216 Semel Institute. Directed individual research and study in psychiatry at graduate level. S/U or letter grading.**

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**PSPHONY**

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**Psychology**

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Anna S. Lau, PhD, Vice Chair, Graduate Programs
Julienne E. Bower, PhD, Vice Chair, Academic Facilities

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Hugh T. Blair, PhD
Aaron P. Blaisdell, PhD
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Stanley J. Schein, MD, PhD
Ladan Shams, PhD
Margaret J. Shih, PhD (UCLA Anderson Board of Advisors Term Professor of Management)
Alcino J. Silva, PhD (Eleanor J. Leslie Professor of Pioneering Brain Research)
Annette L. Stanton, PhD
James W. Stigler, PhD
Cindy M. Yee-Bradbury, PhD

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Bruce L. Baker, PhD
Jackson Beatty, PhD
Robert A. Bjork, PhD
William E. Brown, Jr., PhD
Andrew Christensen, PhD
Seymour Feshbach, PhD
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David O. Sears, PhD
David Shapiro, PhD
James H. Sidanius, PhD
Shelley E. Taylor, PhD
James P. Thomas, PhD
Jill M. Waterman, PhD
Bernard Weiner, PhD
John R. Weiss, PhD
Nancy J. Woolf, PhD
Eran Zaidel, PhD

**Professors In Residence**

Eran Zaidel, PhD

**Adjunct Assistant Professors**

Danielle Keenan-Miller, PhD
Philip Sayegh, PhD
Yalda J. Tehrani, PhD

**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 stu-
dents 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 of 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 transfers).

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 their 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 above deadline. 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 M171A, M171B, and M171C), 120A, 120B, and (b) 127A or 127B or 127C, 130 (or one course from 133A through 133I or 161), 135, 150; (2) one laboratory/fieldwork course from 101, 111, 116, 121, 126, 131, 136A, 136B, 136C, 151, 186A 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. Questions about the major should be directed to the Undergraduate Advising Office.

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; 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, 16, 20A, 30, 40A, 60, Psychology 20A, 20B, and Psychology 10, 65, 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, M117J through M119X, 120A, 120B, 121, 124A through 124K (if taken for the major, may not be applied as an elective), 130, 133A, 138E, 137, 142H, 160, 161, 166, 186A through 186D, 187A, 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, 134A, M150, Communication 118, 119, 126, M127, Computer Science 111 through CM186, Linguistics 103 through 185B, Mathematics 110A through 171, Music Industry 121, 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 196E or 196F/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 psychology and related sciences as well as other types of research and fieldwork experiences.

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 qualitative 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 transduction, neuro-anatomical 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 3C, or 31A or 31AL, 31B, and 32A, Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 3C.

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
90 or more units must complete the following in Transfer applicants to the Psychobiology major with Transfer Students who have declared the Psychobiology premajor be career; these courses are open only to 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 134C), and four additional courses from Education 120, 121, 122, Psychology 127C, 127F, 130, 131, 132A, 132B, 133B through 133I, 134F, 134G, 134H, 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 133B through 133I.

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. 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, 16, 20A, 30A, 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.

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, 16, 20A, 30A, 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 undergraduate 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 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 clas-
the Undergraduate Advising Office, 8 units of course 199 may be applied toward the Psychology 195B/196B requirement. Students majoring in the Cognitive Science major and 4 units of course 1998 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 program 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 such topics 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 Fernand Center at 620 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, experiential, 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 a comparative approach where appropriate, emphasis on relevance of biological mechanisms to understanding of humans and their interaction with their environment. 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.

85. 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-88Z. Lower-Division Seminars. (4 each) Seminar, three hours. Enforced requisite: course 10. Limit to freshmen/sophomores. Intensive analysis in seminar situations of selected topics of current psychological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit.

88A. Stress, Adaptation, and Coping. (4) Limited to freshmen. Physiological and psychological processes related to stresses and strains of daily living and potential relation of these processes to disease states. Examination of multifaceted nature of coping with stressors and exploration of strategies for stress management. 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
Consideration of topics such as reinforcement, acquired motivation, and drug addiction. Evaluation of evidence obtained in laboratory studies conducted with animals. P/NP or letter grading.

112B. Psychobiology of Fear and Anxiety. (4) Lecture, three hours. Requisite: courses 10, 100A, 110. Recommended: course 115. Designed for juniors/seniors. Examination of biological and behavioral approaches to fear and anxiety, taken from laboratory and applied research. In addition to overview of major primate models, emphasis is placed 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. Limited to juniors/seniors. Presentation of biological and behavioral approaches to anxiety and depression, taken from laboratory and applied research. In addition to overview of major principles from each approach, emphasis is placed 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, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 110. Designed for juniors/seniors. Investigation of scientific study of cognition and behavior in animals. Topics include perception, memory, 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.

112E. Principles of Behavioral Neuroscience. (4) Lecture, four hours; discussion, 90 minutes. Requisites: courses 10, 100A, 100B. Designed for juniors/seniors. 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.

113. Psychological Statistics. (4) Lecture, four hours. Requisites: courses 10 with a grade of C or better, and one course from Mathematics 2, Program in Computing 10A, Statistics 10, or one term of calculus. Designed for majors. Basic statistical procedures and their application to research and practice in various areas of psychology. Letter grading.

114B. Research Methods in Psychology. (8) Lecture, two hours; laboratory, four hours. Enforced requisites: courses 10 and 100A, 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.

115. Principles of Behavioral Neuroscience. (4) Lecture, four hours; discussion, 90 minutes. Requisites: courses 10, 100A, Life Sciences 7A or 7B. Open to students with current perspectives on how complex processes of mind may be understood using neurosciences techniques. P/NP or letter grading.


115C. Cognitive Neuroscience. (4) Lecture, three hours. Requisite: course 115 or M117C. Understanding complex mental functions depends on interplay of cognitive psychology and behavioral neuroscience. Designed to provide advanced undergraduate students with current perspectives on how complex processes of mind may be understood using neuroscience techniques. P/NP or letter grading.

116. Behavioral Neuroscience Laboratory. (4) Lecture, three hours; 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.


117A. Cellular and Systems Neurosciences. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A. P/NP may be taken concurrently. Life Sciences 2 or 7A. P/NP or letter grading.

117B. Molecular and Developmental Neurosciences. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course 10 with credit for course 100A or 100B. Designed for junior/senior majors. Laboratory experience with techniques in study of learning, especially with animals. Letter grading.


119C. Cognitive Neuroscience. (4) Lecture, three hours. Requisite: course 115 or M117C. Understanding complex mental functions depends on interplay of cognitive psychology and behavioral neuroscience. Designed to provide advanced undergraduate students with current perspectives on how complex processes of mind may be understood using neuroscience techniques. P/NP or letter grading.


119E. Stress and Bodily Disease. (4) Lecture, three hours. Requisite: course 115. Designed for juniors/senior majors. Exploration of stress-related topics, including behavioral and pharmacological variables in stress and illness.

119F. Neural Basis of Behavior. (4) Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Presentation of current data and theory concerning how neurons circuits produce behavior. Mechanisms of perception, response selection, motor pattern generation, learning, and motivation, with emphasis on operation of these processes in well-defined neural circuits in animals and humans. P/NP or letter grading.

119G. Brain, Mind, and Motion Pictures. (4) Lecture, 90 minutes; screenings/discussion, two and one half hours. Requisite: course 115. Limited to juniors/seniors. Exploration of cognitive neuroscience of film from three perspectives: how advanced brain research is represented in films of period, how modern cognitive neuroscience explains experience of watching movies, and neuropsychology of acting in movies. P/NP or letter grading.

119H. Integration of Face and Brain. (4) Seminar, three hours. Requisite: course 115 or M117C. Faces play major role in social interactions in both humans and...
and non-human primates and in other animals as well. Exploration of neuroanatomical, neurophysiological, and neurofunctional underpinnings of face processing (attractiveness, emotional expressions, facial skin, and neurofunctional underpinnings of face processing and nonhuman primates and in other animals as well. Exploration of underling neuronal causes of brain flaws and limitations to understand how brain works by studying what it does well and understand how neuroimaging techniques, identity recognition, based on empirical studies that use behavioral responses in neuroimaging techniques, for juniors/seniors. Introduction to brain activity, emotion, stress, and arousal on motivated behaviors. Limited to juniors/seniors. Neural basis of primary developmental and roles of genes and hormones on sexual development, and roles of genes and hormones on sexual development, with emphasis on scientific study of sexual behavior, with emphasis on social considerations. Topics include historical antecedents of sex research, evolution of sex, influence on sexual orientation, and use of social roles. Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Review of current issues in human categorization, reasoning, decision making, and roles of attention in visual processing, word generation. Possible consideration of developmental aspects. P/NP or letter grading.

124K. Ethical, Legal, and Societal Implications of Cognitive Neuroscience. Lecture, three hours. Requisite: course 120A or 120B. Critical examination of current and potential use of neuroimaging data in legal system as means to assess memory, truthfulness, culpability, and probability of future criminal behavior. Consideration of personal and societal consequences of use of cognitively enhancing drugs, memory damping techniques, brain stimulation, and neural prostheses. Students debate range of current topics. P/NP or letter grading.

124L. Language and Cognition. Lecture, three hours. Requisite: courses 120A or 120B. Analysis of experimental studies of human categorization, reasoning, decision making, problem solving, creativity, and related topics. P/NP or letter grading.

124Q. Psychobiology of Sleep and Dreams. Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Study of measurement of sleep, comparison of sleep in mammal species and sleep in sub-mammalian species, circadian rhythms and circadian disruption of sleep, developmental changes influencing sleep, brain anatomical and neurochemical control of sleep, effects of sleep deprivation, sleep in psychiatric disorders, human sleep disorders, and properties of dreams. P/NP or letter grading.

124R. Neural Correlates of Psychotic Disorders. Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Exploration 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, psychopharmacological drugs, and dreaming result in alterations in these phenomena. P/NP or letter grading.


124U. Neural Correlates of Psychotic Disorders. Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Exploration of scientific methods available for studying these phenomena. Examination of student experiences of world and themselves within and demonstrations of how alterations in brain functioning due to injury, psychopharmacological drugs, and dreaming result in alterations in these phenomena. P/NP or letter grading.


M191N. Visual System. (4) Same as Neuroscience M191N) Lecture, three hours. Requisite: course 115 or Neuroscience M101A or Physiological Science 111A. Ability to image and analyze visual world is truly remarkable feat. Coverage of anatomy and physiology of visual processing from retina to visual cortex through visual pathways, extensive reading, and discussions. P/NP or letter grading.

M190Q. Psychology of Aging. (4) Same as Gerontology M190Q.) Lecture: course 115. 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 ways in which we can best be maximally utilized and impact of detrimental alterations minimized. P/NP or letter grading.

M190P. Psychobiology of Sleep and Dreams. (4) Lecture, three hours. Requisite: course 115. Emerging advanced lecture topics in neuroscience given by visiting speakers, with additional lectures by instructor on relevant background material. Reading of published scientific articles. P/NP or letter grading.


124W. Psychobiology of Sexual Behavior. Lecture, three hours. Requisite: course 115. Broad overview of scientific study of sexual behavior, with emphasis on evolutionary, biological, psychological, and social considerations. Topics include historical antecedents of sex research, evolution of sex, influence of sex hormones on brain and behavior, sexual development, and roles of genes and hormones on sexual orientation. P/NP or letter grading.

120A. Cognitive Psychology. Lecture, three hours; discussion, one hour. Requisite: courses 10, 100A, 100B, 120A or 120B. Designed for juniors/seniors. Exploration 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.

120B. Sensation and Perception. Lecture, three hours; discussion, one hour. Requisite: courses 10, 100A, 100B, 120A or 120B. Designed for juniors/seniors. Acquisition of information about physical world through basic sensory mechanisms and their representation of objects, surfaces, space, motion, and events. Connections between information, computations, and biological mechanisms in vision, audition, and other systems. P/NP or letter grading.

121. Laboratory in Cognitive Psychology. Laboratory, four hours. Requisites: courses 10, 100A, 100B, 120A or 120B. Designed for Psychology and Cognitive Science majors. Laboratory experience with methods and phenomena from research on human perception, memory, and decision making. P/NP or letter grading.

124A. Advanced Topics in Sensation and Perception. Lecture, three hours. Requisites: courses 10, 100A, 120A or 120B. Exploration of issues in visual information, such as storage and representation of visual information, mechanisms of perception, nature and role of attention in visual processing, word and picture recognition, object perception, and imagery. Possible consideration of developmental aspects. P/NP or letter grading.

124G. Human Memory. Lecture, two hours; discussion, one hour. Requisites: course 120A or 120B. Designed for juniors/seniors. Analysis of recent research on basic processes and structural components that comprise the human memory system. Discussion topics include practical implications of such research for instruction, marketing, and witness testimony. P/NP or letter grading.

124H. Consciousness: Current Debates. 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 neuroimaging. Topics such as color, hearing, touch, taste, and smell.

124I. Language and Cognition. Lecture, three hours. Requisites: course 120A or 120B. 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 neuroimaging. Topics such as color, hearing, touch, taste, and smell.

124J. Perception, Learning, and Learning Technology. 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 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.
125A. Developmental Psychopathology. (4) Seminar; three hours; fieldwork, seven hours. Research approaches utilized by psychologists in Fernald Research Intern Program to conduct research in developmental psychopathology and public policy. Topics include first and second language acquisition (sounds, initial perceptual capacities, and sensory foundations) to undertand various research activities during Winter and Spring Quarters. P/NP grading.

125B. Research Methods in Developmental Psychopathology. (4) Laboratory, three hours; fieldwork, seven hours. Limited to departmental majors. Advanced research approaches utilized by psychologists to conduct research in developmental psychopathology. Letter grading.

125C. Advanced Research Methods in Developmental Psychopathology. (4) Laboratory, three hours; fieldwork, seven hours. Limited to departmental majors. Advanced research approaches utilized by psychologists in Fernald Research Intern Program to conduct research in developmental psychopathology. Letter grading.

126. Clinical Psychology Laboratory. (4) Laboratory, four quarters. Requisites: courses 10, 100A, 100B, and 127A or 127B or 127C. Designed for departmental majors. Behavioral genetics as scientific modality of clinical psychology research. Students develop and conduct research. Content varies by instructor, with concentration on one of following: schizophrenia, autism spectrum, anxiety disorders, childhood disorders, psychophysiological methods, observational methods with couples and families. Letter grading.

127A. Abnormal Psychology. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Not open for credit to students with credit for course 127B or 127C. Study of psychological disorders (e.g., depression, anxiety, substance use disorders, schizophrenia) across lifespan, including role of biological, behavioral, social, cognitive, and cultural factors. Diagnosis 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 to students with credit for course 127A or 127C. Study of psychological disorders and biological targets or mechanisms of treatment. Emphasis on clinical neuroscience and innate behaviors as scientific modalities to understand mood disorders, substance use disorders, psychosis, and others. P/NP or letter grading.

127C. Abnormal Psychology: Developmental Perspectives. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Not open for credit to students with credit for course 127A or 127B. Study of abnormal child development from infancy through adolescence and early adulthood. Clinical disorders include behavioral disorders, depression/anxiety, alcohol/substance disorders, eating disorders, and autism spectrum disorder. P/NP or letter grading.

128A. Personality Measurement. (4) Lecture, three hours. Requisites: courses 10, 100A. Rationale, methods, and content of studies dealing with problems of describing persons in terms of a limited set of dimensions. Detailed consideration of research literature dealing with a few representative personality dimensions. P/NP or letter grading.

129C. Culture and Mental Health. (4) Lecture, two hours; discussion, one hour. Requisites: courses 10, 100A. Introduction to study of culture and human behavior in general, and culture and mental health in particular. Emphasis on cultural groups that comprise major U.S. ethnic groups (i.e., African Americans, Latinos/Chicanos, Asian Americans, and American Indians). P/NP or letter grading.

129D. Personality. (4) Lecture, three hours. Requisite: course 10. Survey of major topics in field of personality, including personality theory, personality assessment, and personality development, and cultural role of perception, learning, and motivation in personality. P/NP or letter grading.
134I. Child, Family, and Community. (4) Lecture, three hours. Requisites: course 10, one course from 130 or 133B through 133I, one statistics course. Exploration of role of early childhood educators within context of diverse racial, ethnic, economic, and cultural bases of these dynamics on children’s development. P/NP or letter grading.

135. Social Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Examination of role of early childhood educators within context of diverse racial, ethnic, economic, and cultural bases of these dynamics on children’s development. P/NP or letter grading.

136A. Social Psychology Laboratory. (4) Lecture, 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 experiments, observation, content analysis, and/or questionnaires. P/NP or letter grading.


136C. Survey Methods in Psychology. (4) Lecture, two hours; laboratory, two hours. Requisites: course 10, 100A, 100B, 135. Designed for Psychology majors. Survey research in psychology, with particular emphasis on surveys of social and political attitudes. Actual experience in systematic survey research such as that done by media polling agencies, market research companies, and academic survey research centers. Topics include survey design, sampling, interviewing techniques, response rates, questionnaire design, and analysis of telephone interviewing techniques in laboratories. P/NP or letter grading.

137A. Sport Psychology. (4) Lecture, three hours. Designed for junior/senior psychology majors. Introduction to field of sport psychology. Coverage of research and applied aspects of a range of topics, including youth sport participants as well as world-class performers. 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, body, gesture, and kinematics), 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. Topics include attraction, relationship formation and maintenance, 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. 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 challenges in managing diversity in the workplace, immigrant integration, racial tensions, and health/educational disparities. P/NP or letter grading.

137E. Work Behavior of Women and Men. (4) (Same as Gender Studies M137E.) Lecture, two and one half hours. Requisites: course 10. Gender Studies 10. Designed for seniors. Examination of work behavior of women and men. Topics include antecedents of 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.

137F. Introduction to Sport Psychology. (4) Lecture, three hours. Designed for juniors/seniors. Survey of topics in sport psychology, including leadership and team dynamics, and assessment of personality, motivation, fan behavior, and performance enhancement. Consideration of youth sport through world-class athletics. 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 neurobiological perspective 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 as persuasion from social psychological perspective. Particular attention given to reviewing theory and empirical research on conformity, compliance, and obedience. Covers attitudes and attitude change, focusing on 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 laboratory and field research indicating 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. Examines various theories that address self from social psychological perspective. Topics focus on self-knowledge, how self is represented in memory, and influences on self (observable or unobservable) self-regulation, self-concept (subpersonal), self-regulation, self-enhancement, social comparison, self-esteem, and influence of culture on self. P/NP or letter grading.

137K. Psychology of Emotion. (4) Lecture, three hours. Designed for junior/senior psychology majors. Broad overview of science of human emotion. Covers topics such as history of emotion research, current dominant models of emotion, purpose of facial expressions, experience of emotions in our 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.

138. Electoral Politics: Political Psychology. (4) (Same as Political Science M141A.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 10. Designed for juniors/seniors. Examination of political behavior, political socialization, personal and political beliefs, and influence of culture on self. P/NP or letter grading.

139. 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 its current contested status as minority identity and social construct. 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 reproduce the concept of autism. Examination of how ramiﬁcations of these multiple framings are in context of autism intervention strategy and disability policy today. Letter grading.

140. Introduction to Studying 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: correlational techniques, analysis of variance, and multiple regression. P/NP or letter grading.

M144. Measurement and Its Applications. (4) (Same as Statistics M154.) Lecture, three hours. Requisite: one course from 100A, Statistics 10, 12, or 13. Statistical theories for constructing psychological, educational, social, and behavioral science data. Classical test, factor analysis, generalizability, item response, optimal scaling, ordinal measurement, computer assisted scoring, and construction of tests and measures and their reliability, validity, and bias. 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 or Lesbian, Gay, Bisexual, Transgender, and Queer Studies M114. Designed 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, race, and ethnicity on status of women and lesbians, identity development within a multicultural society, changes in psychological theories about lesbians in sociological context. P/NP or letter grading.

M149. Language Development and Socialization. (4) (Same as Anthropology M152P.) Lecture, three hours; discussion, one hour (when scheduled). Exploration of processes through which children learn structuring languages. Comparison of ways in which children become competent participants in linguistic and social worlds around them. Examination of language use and socialization over childhood, across communities of practice, and across different ethnic and cultural groups. Bridges work from anthropology, psychology, linguistics, and cognitive science. Topics include cross-cultural perspectives on child development and wide range of methodologies for investigation of ways in which language development and socialization interface with culture, modality, inequality, education, and cognition. P/NP or letter grading.

150. Introduction to Health Psychology. (4) Lecture, three hours. Requisite: course 10 or 100A. Areas of health, illness, treatment, and delivery of treatment that can be elucidated by understanding of psychological concepts and psychological perspective on these problems, and how psychological perspective might be enlarged and extended in medical area. P/NP or letter grading.

151. Research Methods in Health Psychology. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, 150. Research methods used in health psychology, including experimental, quasi-experimental, and nonexperimental methods. Examples and projects from health psychology. Letter grading.

152. Mind-Body Interactions and Health. (4) Lecture, three hours. Designed for junior/senior Psychology and Psychobiology majors. Examination of bi-directional interactions between mind and body and how these, in turn, influence physical and mental health. Topics include impact of stress, emotions, personality, and social world on biological systems and health. Discussion of mind-body interventions designed to reduce stress and improve health, including scientific research on yoga and meditation. P/NP or letter grading.

160. Genetics of Human Cognition and Behavior. (4) Lecture, three hours. Requisites: courses 10, and 132 or 132P. Genetics 127 or 127P. Designed for juniors/seniors. Survey of field of behavior genetics, including methods for determining genetic and environmental influences and for locating and characterizing genes impacting these traits, analysis of knowledge of genetic contributions to cognition and behavior and disorders thereof. 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 inform study of development and how developmental approach can advance progress in cognitive and developmental sciences. P/NP or letter grading.

182. Psychology of Addiction. (4) Lecture, three hours; discussion, one hour (when scheduled). Survey of topics covering psychosocial and neurobiological theories of addiction, pharmacological effects of drugs and abuse, etiology, assessment, diagnosis, and treatment. P/NP or letter grading.

183. Developmental Psychopharmacology. (4) Same as Sociology M138L. 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 among young people under 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, sexual orientation, and class. Analysis of strength of this sociological argument and evaluation of explanatory potential of different theories to make sense of violent death, paying particular attention to forensic and medicolegal system to determine suicide and solve homicides. New and contemporary studies to examine how research and conceptualization of suicides and homicide have changed, as well as social responses to these phenomena. P/NP or letter grading.

184. 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.

185. Psychology of Gender. (4) Same as Gender Studies M165S. Lecture, three hours. Consideration of psychological literature relevant to understanding contemporary sex differences. Topics include sex-role development and role conflict, physiological and personality differences between men and women, sex differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

186. Neurobiology of Bias and Discrimination. (4) (Same as Neuroscience M187 and Physiological Science M106.) Lecture, four hours. Limited to junior/seminior neuroscience, physiological science, and psychology majors. Exploration of perception 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. Examination of implications of these research findings, including 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. Examines 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 technological impact on neurodevelopmental processes from age 2 through 18 (and through emerging adulthood). May be repeated for credit. P/NP or letter grading.

172. Afro-American Woman in U.S. (4) Same as African American Studies M172. Lecture, two and one half hours. Designed for juniors/seniors. Impact of social, psychological, political, and economic factors 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.

173. Advanced Abnormal Psychology. (4) Lecture, three hours. Requisites: courses 10, 100A, and 127A or 127B or 127C. Examination of research and theory concerning origins, course, and outcomes of disorders behavior. Focus on continuity and change in patterns of behavior, assessment methods, and re-search approaches. Concentration on one of fol-low: childhood disorders, anxiety and stress, schizophrenia, or mood disorders. P/NP or letter grading.

174. Health Disparities. (4) (Formerly numbered 174.) (Same as Life Sciences M174.) Lecture, three hours. Examination of health disparities and ways in which social/ethnic factors are involved in combination with variety of other factors create differential quality and access to healthcare resulting in poor health outcomes in racial/ethnic minorities. Basic foundation for critical race and critical public health theories and research. Students will be exposed to research that examines the role of race and ethnicity in health disparities and other social, biological, political, psychological, genetic, and clinical health interests. P/NP or letter grading.

175. Community Psychology. (4) Designed for junior or 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 rehabilitation of prisoners. P/NP or letter grading.

176S. Addressing Social Determinants in Racial/Ethnic Minority Communities to Reduce and Prevent Health Disparities. (4) Same as Community Engagement and Social Sector (CSESSL) 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 models in racial and ethnic minority communities, health status of individuals can be function of built environment, exposure to pollutants and toxics, scarcity of supermarkets or other healthy food options, noise levels, and variety of other stressors and unhealthy conditions. Health interventions are often focused on individual-level change or increases in access to health-related services with limited consideration of 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. Letter grading. P/NP or letter grading.

178. Substance Abuse and Addiction. (4) Lecture, two hours; discussion, two hours. Requisites: courses 10, 100A, and 127A or 127B or 127C. Designed for junior or senior Psychology majors. Conceptual and empirical foundations of substance use; comparison of alternative models of counseling processes. Emphasis on counseling approaches in community mental health areas such as drug abuse, suicide prevention, and crisis interventions. P/NP or letter grading.


184A-184B. Psychology Research Opportunity Program Seminars. (2-25) Seminar, 90 minutes. Designed to bring together Psychology Research Opportunity Program (PROPS) 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 juniors/seniors. Practical applications of psychological research 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. May not be applied to upper-division requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1551 Franz Hall. P/NP grading.

186. 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 or senior department 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 problem solving). Types of models include neural networks and symbolic models. Lectures and discussions interwoven with computer simulations written in MATLAB, P/NP or letter grading.

188. Cognitive Science Laboratory: Physiopsychological Theories and Methods. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 85, 100A, 100B. Designed for junior/senior department 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 signal detection theory and its application. P/NP or letter grading.

189. Laboratory in Functional Neuroimaging. (4) Laboratory, four hours. Enforced requisites: courses 10, 100A, 100B. Limited to departmental majors. Introduction to study of brain function in vivo using magnetic resonance imaging (fMRI). All major areas to be discussed, from physical basis of MR signal to data analysis. Letter grading.

187A. Psychology and Law. (4) Lecture, two hours; discussion, two hours. Designed for juniors/seniors. Study of new topics in legal psychology, including suspect identification, witness reports, and police procedures. Outside speakers utilized in presentation of these materials. Students participate in presentations and/or discussions.

187B. Advanced Psychology and Law. (4) Lecture, three hours; discussion, one hour. Requisite: course 187A. Designed for juniors/seniors. Study of additional topics in legal psychology including police ethics, theories of crime, corrections, repeat offenders, community policing, and interrogation. Outside speakers utilized in presentation of these materials. Students participate in presentations and/or discussions.

187C. Sex and Law. (4) Lecture, three hours. Limited to juniors/seniors. Examination of Constitutional foundation for sexual rights in America, with focus on free speech of speech and press and sexual behavior of sexual orientation. Enforced requirement for all Psychology major. Limited to juniors/seniors. Recommended for Psychology and Gender Studies majors. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1551 Franz Hall. P/NP or letter grading.

188A. Special Seminars: Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Departmentally approved experiential learning. Topics to be announced. Approval is required from each student. Students may register 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 presentation. 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 and in writing 90-minute papers. 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 an opportunity for a student to enter an independent study with a specially assigned 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 Psychology. (1) Seminar, one hour. Designed to bring together students under the guidance of faculty research seminars and to develop their own research projects, and to provide opportunities for individual research. 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. 3-unit option. P/NP grading.

191. Variable Topics Research Seminars: Psychology. (1) Seminar, one hour. Limited to juniors/seniors. Research seminar on selected topics in psychology. Reading, 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. Enforced corequisite: course 198. Course 191AH is required to be taken in the fall semester, 191BH in the spring semester, and 191CH in the summer semester. Limited to psychology honors program students. Opportunity for development and analysis of creative ideas through individual research projects with faculty supervision. May be repeated for credit. 3-unit option. P/NP grading.

191C1. Research Group Seminars: Development. (1) Seminar, one hour. Corequisite: course 196A (3-unit option). Limited to junior/senior majors who are part of research group. Discussion of research methods and current literature in field of or of current literature of faculty members or students. Only 12 units a year (any combination of courses 185, 192, 194, 195, and 196) may be applied toward undergraduate degree. May be repeated 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.

192. Variable Topics Research Seminars: Psychology. (2) Seminar, two hours. Corequisite: course 196A (5-unit option). Limited to junior/senior majors who are part of research group. Discussion of research methods and current literature in field of or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May be repeated 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.

194B. Research Group Seminars: Psychology. (3) Seminar, one hour. Corequisite: course 196A (3-unit option). Limited to junior/senior majors who are part of research group. Discussion of research methods and current literature in field of or of research of faculty members or students. Only 12 units a year (any combination of courses 185, 192, 194, 195, and 196) may be applied toward undergraduate degree. May be repeated 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 Major. (3) Seminar, two hours. 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 of or of research of faculty members or students. Only 12 units a year (any combination of courses 185, 192, 194, 195, and 196) may be applied toward undergraduate degree. May be repeated toward course requirements for Cognitive Science 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 194B (3-unit option). Limited to junior/senior Cognitive Science majors who are part of research group that meets with graduate students. Discussion of research methods and current literature in field of or of research of faculty members or students. Only 12 units a year (any combination of courses 185, 192, 194, 195, and 196) may be applied toward undergraduate degree. May not be applied toward course requirements for Cognitive Science Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. 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. Students meet on regular basis with sponsor and provide periodic reports of their experience. 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.

195B. Corporate Internships in Cognitive Science. (4) Tutorial, four 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, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. P/NP grading.

196A. Research Apprenticeship in Psychology. (3 to 4) Tutorial, eight hours. Corequisite: course 194B. Limited to junior/senior Cognitive Science majors. Practical applications of psychology through research 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. 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, 195, 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.

199A. Senior Project in Psychology. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of psychology faculty mentor. Culuminating 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. P/NP grading.

199B. Senior Project in Psychology. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of psychology faculty mentor. Culuminating 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 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 anal-
yses 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 the conduct 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 autonomic regulation. Historical survey of behavioral analyses of motivation and goal-directed behavior. S/U or letter grading.

204B. Theories of Learning. (4) Discussion, three hours. Requisite: course 204A. 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. Preparation: graduate standing. Presentation of theoretical analysis of fear and anxiety behavior. Emphasis on intra- and inter-individual differences in fear and anxiety. Integration of animal and human research.

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 representation, and functional specialization, attention, and regulation of cortical function by extracortical systems. Letter grading.

205C. Neurotransmitters in Human Disorders of Motivation and Learning. (2) Lecture, three hours. Designed for graduate students. Detailed analysis of molecules involved in interneuronal communication processes (i.e., neurotransmitters, neuromodulators, “neuromodulators,” neurotropic agents). Discussion of their roles in normal brain physiology, followed by detailed analyses of their perturbations in various disease states. Particular emphasis on current and past thinking about Alzheimer’s disease, Parkinson’s disease, Huntington’s disease, and Down’s syndrome dementia. 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 drug administration and pharmacokinetics. Major classes of psychoactive drugs, anxiolytics, hypnotics, and “atypical” compounds. Letter grading.


205F. Physiological Psychology. (2) Lecture, three hours. Designed for graduate students. Search for anatomical loci of engrams. Cell biology of plasticity, including electrophysiological and molecular approaches. Theories of how neural circuitry might be organized to make learning possible. Letter grading.

205G. Behavior Genetics. (2) Lecture, three hours. Designed for graduate students. In-depth analysis of field of behavior genetics, including methods for determining genetic influences and for locating and characterizing genes impacting these traits, as well as 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. Exploration of anatomy, physiology, and computation in visual system, focusing on retinal, visual cortex, and overall performance. Letter grading.

205L. Cognitive Neuroscience. (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.

205M. Neuropsychology of Perception. (2) Lecture, three hours (five weeks). Designed for graduate students. Examination of neural substrates of high-level visual processing. Topics includeagnosias and characteristics of electrophysiological responses recorded in primate temporal lobe. Discussion of issues regarding neural representation of knowledge. Letter grading.

206B. Introduction to Biological Signal Processing. (4) Lecture, three hours. Introduction to basic electronics and some common types of signal processing of value in laboratory research in animal and human neurophysiology. Review of functional principles of nervous systems such as neuroimaging, electroencephalogram (EEG), and cardiovascular phenomena. S/U or letter grading.

207. Seminar in Behavioral Neuroscience. (4) Seminar, two hours. Examination of current research in behavioral neuroscience. Letter grading.

M208. Biology of Learning and Memory. (4) Same as Neurobiology M200G and Neuroscience M220L. Lecture, four hours. Molecular, cellular, circuit, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.


212. Evaluation of Research Literature in Physiological Psychology. (1) Lecture, 90 minutes. Paper on current research by member of seminar and its significance and methodology discussed and criticized in depth. May be repeated for credit. S/U grading.

M213. Neuroimaging and Brain Mapping. (4) Same as Neuroscience M272 and Physiological Science M272J. Lecture, three hours. Requisites: Neuroscience M201, M202. Theory, methods, applications, assumptions, and limitations of neuroimaging. Techniques, biases, and implications for current research in human behavior. Identification of contribution of neuroimaging to overall health, construction of study methods that effectively measure major health behav-
ions, 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. Designed for 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. Basic foundation for health psychology graduate students to study various research designs and methods, measurement issues, responsible conduct of research, and related issues that are found in research in health psychology. S/U or letter grading.

219. Health Psychology Lecture Series. (Formerly numbered 425.) Lecture, one hour. Clinicians and researchers in health psychology from Los Angeles area present their research, programs, and/or clinical work as part of training program in health psychology. 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. Requisites: course 220A or 220B. Review of contemporary topics and issues in social psychological theory and research.

220D. Introduction to Social Psychology. (4) Lecture, three hours. Designed for graduate students. Introduction to theory and research in 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 222A. Critical review of theory and research on interpersonal relations, with emphasis on friendship, dating, and marriage.

222B. Interpersonal Influence and Social Power. (4) Seminar, three hours. Preparation: one undergraduate 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, comprehensive exposure to major theoretical and methodological issues within domain of intergroup relations research. Approaches not simply restricted to classical research in intergroup relations 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 the psychology of stigma, primarily from the perspective of stigmatized. Letter grading.

222E. Individuals and Groups in Organizations. (4) (Same as Management-PhD M243.) Lecture, three hours. Designed for graduate students. Doctoral-level survey of current theories and research in the 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 content, structure, and culture. S/U or letter grading.

222F. Professional Issues in Psychology. (4) Seminar, three hours. Acquisition of skills essential for success in graduate school and academia more broadly. Includes examining visible and invisible curriculum, self-presentations, assessment, review, writing, manuscript reviewing, grant writing, teaching and mentoring, academic job market, job negotiation, and giving job talks. Involves combination of guest speakers, lectures, discussions, exercises, and practical experience. S/U or letter grading.

222G. Social Vision. (4) Seminar, three hours. Exploration of nascient field of social vision, with emphasis on how observers utilize visible cues in face and body to form impressions of other people and how these perceptions are moderated by existing knowledge structures and motivations. S/U or letter grading.

222I. 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) Discussion, 90 minutes. 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 research papers in social psychology presented by members of seminar and their significance and methodology discussed and critiqued in depth. S/U grading.

M228A. Proseminar: Political Psychology. (4) (Same as History M256A 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. Requisite: course 220A or Political Science M261A. Examination of mass attitudes, 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. 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. Seminar provides broad background in the field and also gives depth and discussion of 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 differences and consequences for human behavior and social interaction.

232. Human Sexuality. (4) Lecture, three hours. Designed for graduate students. Intended to teach students how to carry out research on human sexual behavior. Emphasis on conceptual and methodological issues. Use of broad definition of human sexuality, including sexual and nonsexual expression, as an integrating framework. S/U or letter grading.

233. Seminar: Environmental Psychology. (4) Requisites: courses 235, 250A, 250B. Critical review of work in environmental psychology designed to identify basic dimensions for analysis of man/environment relationships. Use of human emotional responses to environment as intervening variables linking specific stimulus qualities to a variety of approach-avoidance behaviors. Individual differences and drug-induced differences as these relate to emotional response dimensions used to explain individual differences in response to same environment over time or between individual differences to same situation. Review of literature relating information from environments to personal and preference differences.

234. Social Psychological Aspects of Competitive Sport. (4) Review of research concerning 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, and participation and dropping out, and socialization through sport.


M236. Interdisciplinary Relationship Science. (4) (Same as Anthropology M295S, Education M297, and Sociology M270.) Lecture, three hours. Limited to graduate students. Diverse approaches to relationship science in fields of education, psychology, and sociology. Focus on themes of understanding biological, 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 Psychiatry M238.) Seminar, three hours. Designed for graduate students. Techniques of conceptualizing, collecting, and analyzing survey data; instruction in qualitative strategies for enhancing survey research on psychocultural problems.

M239. Personality, Motivation, and Attribution. (4) Seminar, three hours. Limited to graduate students. Consideration of major topics and concepts, key theories, latest methods, and research findings in development of language and cognition. 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 development of language and cognition. S/U or letter grading.

240C. Developmental Psychobiology. (4) Lecture, three hours. Preparation: one undergraduate developmental psychology course in social development or related topic. 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.

240D. Developmental Psychobiology. (4) Lecture, three hours. Preparation: one undergraduate developmental psychology course in social development or related topic. 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.

241. Current Developments in Developmental Psychology. (1) Discussion, 90 minutes. Designed for graduate developmental psychology students. Presentation of papers on current advances in developmental psychology. 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.
242A-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.

242F. 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.

242G. 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, peer relations, parent/adolescent relationships, roles 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 its implication for social/political, educational, research issues, values, and societal change. In Progress (243A) and S/U or letter (243B) grading.

244. Critical Problems in Developmental Psychology. (4) Lecture, three hours. Requisites: courses 240A, 240B. Current problems; content varies depending on interest of class and instructor. May be repeated for credit with consent of instructor.

245P. Personality Development and Education. (4) (Same as Education M217C.) Lecture, four hours. Review of research on the 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.

246. Brain and Behavioral Development During Adolescence. (4) (Formerly numbered 247.) Seminar, three hours. Functional and emerging work on adolescent brain and behavioral development. Topics include cognition, risk taking, emotion, identity, stress, relationships, and population diversity. Discussions of assigned readings and implications by guest faculty and scientists. S/U or letter grading.

249. Current Issues in Quantitative Psychology. (1) Seminar, 90 minutes. Designed for quantitative graduate students and minors. Research presentations and discussions of current topics in quantitative psychology. May be repeated for credit. S/U grading.


250B. Advanced Psychological Statistics. Advanced experimental design and planning of investigations.

250C. Advanced Psychological Statistics. (4) Lecture, three hours; discussion, two hours. Requisite: course 250A. Limited to graduate students. Review of traditional topics in correlation and regression analyses, including model comparison strategies, evaluation of model residuals, testing mediation and moderation hypotheses, working with categorical variables, general linear model, and logistic regression. Letter grading.

251A-251B. Research Methods. (4-4) Tutorial, to be arranged. Designed for graduate psychology students. Students design and conduct original research projects under supervision of instructor in charge. It is anticipated that many students will complete 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 categorical univariate and multivariate distributions, independence and conditional independence, log-linear models, multivariate categorical designs, and ordered categorical variables. Applications from various areas of psychology.


254A. Computing Methods for Psychology. (4) Lecture, three hours. Requisites: courses 250A, 250B. Use of MATLAB, but only basic programming knowledge assumed; most of MATLAB required. Designed to teach basic computer methods relevant to work in experimental psychology and cognitive science. Topics include simulation/modeling, statistical data analysis, and stimulus presentation. S/U or letter grading.

255A. Quantitative Aspects of Assessment. (4) Lecture, four hours. Requisites: courses 250A, 250B. Introduction to issues concerning empirical measure- ment of abstract constructs using both classical and modern empirical techniques. Hands-on approach allows students to develop practical experience. In addition to discussion of reliability and validity, topics include exposure to analytic approaches, including item response theory, multiple re- gression, principal components analysis, exploratory factor analysis, confirmatory factor analysis, path analysis, and structural equation modeling. S/U or letter grading.


256A. Introduction to Multilevel Modeling. (4) Lecture, four hours. Requisite: course 250C. Basics of random coefficient models for analysis of data from (1) individuals nested within groups and (2) repeated observations of individuals (longitudinal growth models). Selected advanced topics, including three-level models, cross-classification, dyadic data, categorical 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, including nonlinear models, multilevel mediation, nonin- herarchical data structures, meta-analysis, modeling variance, and other topics of student interest. Readings in both quantitative and substantive multilevel modeling literature. S/U or letter grading.


259. Quantitative Methods in Cognitive Psychology. (4) Requisites: courses 250A, 250B. Number of nonstatistical mathematical methods and techniques commonly used in cognitive psychology. Topics in- clude Markov chains, other stochastic processes, queueing theory, information theory, frequency analysis, etc.


261. Perception. (4) Lecture, three hours. Concepts, theories, and research in study of perception. Considers the questions: Why do things look, sound, smell, taste, or feel as they do? What is the nature of perceptual systems? How do these systems process information?


264. Thinking. (4) Lecture, three hours. Contemporary theory and research in thinking, problem solving, infer- ence, semantic memory, internal representation of knowledge, imagery, concepts, S/U or letter grading.


268A-268E. Seminars: Human Information Process- ing. (4 each) Seminar, three hours. Topics vary with interests of instructor. Each course may be taken independently and may be repeated for credit. 268A. Perception; 268B. Human Learning and Memory; 268C. Judgment and Decision Processes; 268D. Lan- guage and Cognition; 268E. Human Performance.

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 creating user interfaces that are consonant with user needs and ca- pabilities. Course projects include creating and user testing 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 subfield of the area. May be repeated for credit.
270A-270B-270C. Foundations of Clinical Psychology. (4-4-4) Lecture, five hours. Designed for graduate clinical psychology students. Letter grading.

270A. Corequisite: course 271A. Analysis of phenomenological, theoretical, and research issues regarding etiology and mediating mechanisms in neurotic, affective, schizophrenic spectrum, and other personality disturbances. 270B. Corequisite: course 271B. Principles and methods of psychological assessment and evaluation. 270C. Corequisite: course 271C. Principles and methods of psychological intervention in individuals, families, and community settings.


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 a 251 research at an early stage to insure completion. S/U grading.


272A-272G. Advanced Clinical Psychological Methods. (3-3-3) Three-hour seminar course may be taken independently for credit. Letter grading.


272C. Clinical Interventions for Psychological Problems of Children. (4) Seminar, three hours. Requisite or corequisite: course 401 or 451. May be taken independently for credit. Letter grading.

272D. Famil Therapy and Research. (4) Seminar, three hours. Requisites: courses 270A, 270B, 270C. Survey of major schools of family therapy and how each applies to specific clinical cases, with emphasis on depression and addiction, and schizophrenia. Discussion of actual 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.

272F. 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 behavioral modification principles and techniques. Major conceptual issues, specific techniques demonstrated and practiced by students. Range of adult problems such as depression, stress and anxiety, anger management, assertiveness, problems may be taken independently for credit. Letter grading.


273A-273B-273C. Clinical Psychological Methods. (2-2-2) Lecture, one hour; discussion, one hour. Required of graduate clinical psychology students. Year-long course sequence covering variety of topics necessary for clinical psychologists. Topics include: psychological assessment and ethical issues, child abuse, suicide assessment, issues in empirically validated treatments, psychiatric consultation and psychoactive medications, working with diverse clinical populations, etc. Letter grading.

274. Health Status and 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 macroscopic perspective, discussion of integrity of methodology, selection of 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.


278. Issues and Concepts of Clinical Psychology. (4) Discussion, three hours. Open to graduate students in majors other than clinical psychology. Survey of research issues and theoretical concepts. Emphasis on assessment and intervention, with consideration of historical, theoretical, and research bases for current trends. S/U or letter grading.


M288A-M288B. Principles of Neuroimaging I, II. (4-4) Same as Biomedical Engineering and Psychiatry M284A-M284B. Lecture, four and one half hours. Preparation: competence in integral calculus, electricity and magnetism, computer programming (any language), general statistics. Requisite: Psychiatry 292. Course M288A is requisite to M288B. Instrumental imaging methods for study of nervous system, with emphasis on quantitative understanding and data interpretation and test battery. Application of magnetic resonance imaging, positron emission tomography, magnetic resonance imaging, transcranial magneto stimulation, near infrared imaging. Letter grading.

289A-289B-289C. Current Issues in Clinical Psychology. (1-1-1) Seminar, two hours. Designed for first-year graduate clinical psychology students. Preparation of research and applied topics relevant to clinical psychology. In Progress (289A, 289B) and S/U (289C) grading.

290. History and Systems of Psychology. (2) Seminar, two hours. Requisites: courses 251A, 251B, 251C. Rich and detailed examination of history of full scope of psychology as scientific discipline, with particular emphasis on cognitive, social/personality, developmental, and biological aspects of discipline. Brief treatment of how psychology has evolved within broader field have evolved. S/U or letter grading.


292. Biobehavioral Mechanisms of Stress and Disease. (4) Lecture, three hours. Designed for graduate psychology students. Behavior/physiology interactions of some major bodily systems: nervous, cardiovascular, gastrointestinal, and endocrine systems. Usual and altered states of these systems (e.g., stress) and how they can promote permanent tissue injuries, disease, or improved bodily function, health enhancement. S/U or letter grading.

298. Psychosocial Contributors to Ethnocultural Disparities in Health. (4) Seminar, three hours. Limited to graduate students. Role of social class, gender, and other psychosocial factors in accounting for disparities in physical and psychological health in racial/ethnic groups. Attention to psychosocial factors, with focus on explanatory models and approaches to intervention. S/U or letter grading.


Psychology / 703
PUBLIC AFFAIRS

Interdisciplinary Minor
Meyer and Renee Luskin School of Public Affairs
3250 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

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.

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 three electives are required.
(2) two or three elective courses selected from upper-division, undergraduate courses (100-199) within the four academic units of the Luskin School of Public Affairs: public affairs, public policy, social welfare and social workers, and public policies that affect individuals and groups of people in their public and private lives.
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 M165, 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.

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**Public Affairs Schoolwide Programs**

**Meyer and Renee Luskin School of Public Affairs**

3250 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656

**Public Affairs Major**

310-794-4080

E-mail contact

Meredith Phillips, PhD, Chair

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**Faculty Committee**

**Faculty Committee**

Kenya L. Covington, MCP, PhD (Public Policy)
Michael C. Lens, MPP, PhD (Public Policy, Urban Planning)
Leré F. Levy-Storms, MPH, PhD (Social Welfare)
Meredith Phillips, PhD (Public Policy, Sociology)
Laura Wray-Lake, PhD (Social Welfare)

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**Scope and Objectives**

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.

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**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 quantitative and qualitative 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 automatically 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 six of the required lower-division courses and the school quantitative reasoning and Writing I requirements. Two of the six 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 six 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 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) two research methods courses Public Affairs 115, 116; (3) three-term capstone sequence Public Affairs 194A, 194B, and 194C taken concurrently with 195A, 195B, and 195C; (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. (6) 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.

18. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Introduction to 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. (6) 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, mass 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 conflict, with an eye to understanding how to address them, and how different polities 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.

40. 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 democracy, pluralism, 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 just, and strategies for 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, four hours. Examination of potentialities and challenges of 21st-century urban revolution in global context. Introduction of theoretical frameworks and conceptual methods used by general public in studying cities and urban transformations, and historical and contemporary analysis of urbanization to learn about key urban processes such as 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 of space and utopian visions of urbanism. Letter grading.

110. Urban Revolution: Space and Society in Global Context. (4) Lecture, three hours; discussion, one hour. Examination of potentialities and challenges of 21st-century urban revolution in global context. Introduction of theoretical frameworks and conceptual methods used by general public in studying cities and urban transformations, and historical and contemporary analysis of urbanization to learn about key urban processes such as 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 of space and utopian visions of urbanism. Letter grading.

113. Policy Analysis: Approaches to Addressing Social Problems. (4) Lecture, three hours. Introduction to policy analysis designed to train students in logic of public 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 organizations to explore social ecology of helping relationships, role of professionals 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; discussion, two hours. Requisite: course 60 or equivalent introductory statistics course. Course in R preferred. Introduction to multivariate quantitative research methods used to answer questions in social science. Students gain practical and intuitive understanding of multivariate regression, program evaluation, and research methods, and apply knowledge by analyzing real world data. Focus on practical analytic tools using statistical software. Letter grading.

116. Using Qualitative Methods to Understand Social Problems and Their Potential Solutions. (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.

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Upper-Division Courses

110. Urban Revolution: Space and Society in Global Context. (4) Lecture, three hours; discussion, one hour. Examination of potentialities and challenges of 21st-century urban revolution in global context. Introduction of theoretical frameworks and conceptual methods used by general public in studying cities and urban transformations, and historical and contemporary analysis of urbanization to learn about key urban processes such as 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 of space and utopian visions of urbanism. Letter grading.

116. Using Qualitative Methods to Understand Social Problems and Their Potential Solutions. (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.

114. People, Organizations, and Systems. (4) Lecture, three hours. Theoretical approaches to human service organizations to explore social ecology of helping relationships, role of professionals 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; discussion, two hours. Requisite: course 60 or equivalent introductory statistics course. Course in R preferred. Introduction to multivariate quantitative research methods used to answer questions in social science. Students gain practical and intuitive understanding of multivariate regression, program evaluation, and research methods, and apply knowledge by analyzing real world data. Focus on practical analytic tools using statistical software. Letter grading.

116. Using Qualitative Methods to Understand Social Problems and Their Potential Solutions. (5) Lecture, three hours; discussion, two hours. Introduction to qualitative research methods with focus on ethnographic observations, in-depth interviews, and focus groups. Students practice conducting variety of qualitative methods. Letter grading.

120. Urban Poverty and Public Policy. (4) Lecture, three hours. Explorations of how neighborhoods characterize by concentrated poverty affect urban residents. Examination of relative efficacy of various public policies that aim to improve lives of urban poor. Use of explicit political lens, evaluating roles that elite institutions, mass behavior, class and race-based power disparities, and public opinion play in development and implementation of urban policy. Letter grading.

M130. Biomedical, Social, and Policy Frontiers in Human Aging. (5) (Same as Gerontology M108 and Social Welfare M108) Lecture, four hours. Limited to juniors/seniors. Course of human aging charted in historical context, social forces, and stressors, with emphasis on elderly populations. Use of conceptual frameworks to increase relevance of aging to students’ lives and enhance critical thinking—biopsychosocial approach that is based on recognition that aging is inherently interdisciplinary phenomenon, and life course perspective that is distinguished by analytical framework it provides for understanding interplay between human lives and changing social, political, and economic forces. Students to understand how events, successes, and losses at one stage of life can have important effects later in life. Focus on individuals as they age within one particular sociocultural context. Letter grading.

M131. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Chicana and Chicano Studies M160B, Gender Studies M104C, Gerontology M104C, 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.

M142. Latino Social Policy. (4) (Same as Chicana and Chicano Studies CM177.) 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 access to social benefits and human services. Letter grading.

148. U.S. Housing Policy and Geography of Opportunity. (4) Lecture, three hours. Exploration of contemporary levels of racial inequality through lens of U.S. housing policy. Study includes historical overview of federal policies; evaluation of ways by which living in racially segregated, high-poverty neighborhoods constrain opportunity and social mobility; exploration of most prevalent affordable housing policies; and evaluation of their respective program designs and outcomes. Letter grading.

M152. Local Policymaking for Urban Planners. (4) (Same as Public Policy M152.) Seminar, three hours. Exposition of complex problem area of urban planning to explore ethical concerns in planning and community development; necessity to balance demands from interest groups including planners, politicians, business and nonprofit organizations, community groups, and local government implementation and federal urban laws and regulations. Letter grading.

M153. Transportation and Land Use: Parking. (4) Lecture, three hours. 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 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 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. Letter grading.

M160. Urban Sustainability. (4) (Same as Urban Planning CM160.) Lecture, three hours. Examination of urban liveability and the ways that the majority of Earth’s population now 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 potential centers of innovation 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.

M164. Science, Technology, and Public Policy. (4) (Same as Electrical and Computer Engineering CM182 and Public Policy CM182.) Lecture, three hours. Review and continuing assessment of how technology is 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. Letter grading.

170. Civil Society, Nonprofit Organizations, and Philanthropy: Comparative Perspectives. (4) Seminar, three hours. Reconsidering and extending core understanding of how technology is 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. Letter grading.

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175. Communications and Conflict in Public Affairs. (4) Lecture; four hours. Interactive course that prepares students for successful work with collaborators, policymakers, and the public. Students gain interpersonal skills, cultural competency; learn effective communication, conflict resolution, and negotiate their interests successfully; learn to engage constituencies and build community around shared goals. P/NP or 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 a maximum of 16 units. Individual contract required. P/NP or letter grading.

Public Health Interdisciplinary Minor
Jonathan and Karin Fielding School of Public Health
A1-269 Center for Health Sciences
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Public Health Minor
310-825-5524
Deborah C. Glik, PhD, Chair

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Roger Detels, MD, MS (Epidemiology)
Gang Li, PhD (Biostatistics)
Nadered Pourat, 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, 540, 180, 181, Health Policy and Management 110, 121, Public Health 53, M106, or M151. 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.

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. An undergraduate minor in Public Health is also offered.

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. 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
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 life expectancy, causes of death, reportable diseases, services utilization, provider supply, and risk behaviors within demographic/immigration changes. Biannual review of health effects in U.S. and Mexico. Letter grading.

M151. Healthcare in Transitional Communities. (4) (Same as Sociology M142J.) 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, four 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.


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.

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 professionals, including oral and written presentation skills for relevant audiences, data analytic and presentation skills, and multidisciplinary team-building skills working with 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, roles 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, two hours. 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 speakers. 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.

PUBLIC POLICY

Meyer and Renee Luskin School of Public Affairs

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Lecturers

Michelle Dennis, MPA, CPFO
Rick Tuttle, PhD

Visiting Professor

Michael S. Dukakis, JD

Scope and Objectives

The Department of Public Policy is an interdisciplinary 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 Schoolwide Programs 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
### Public Policy

#### Lower-Division Courses

**10A. Introduction to Public Policy.** (5) Lecture, three hours; outside study, nine hours. Application of policy analysis to California issues. Guest lectures from practitioners and academic colleagues. Requisites: 101E. Letter grading.

**10B. California Policy Issues.** (3) Lecture, three hours. Application of policy analysis to issues and solutions in California. Guest lectures from local policymakers. P/NP or letter grading.

**10C. Public Policy for Crime, Cannabis, and Other Drugs.** (5) Lecture, three hours; outside study, twelve hours. Application of policy analysis to issues and solutions concerning homelessness. Guest lectures from local policymakers. P/NP or letter grading.

**10D. Public Policy and Urban Homelessness.** (5) Lecture, three hours; outside study, film review, and field/volunteer work, nine hours. Application of policy analysis to issues and solutions concerning homelessness. P/NP or letter grading.

**110. Understanding Public Issue Life Cycle.** (4) Lecture, three hours. Study of complex arena of public policy and ethical decision-making. May be repeated for credit. Letter grading.

### Upper-Division Courses

**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 health care costs and ensuring payment for growing 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. Role of 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 health care in various ideological, cultural, and economic contexts; role of diverse stakeholders. Focal 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 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.

**M127. Understanding Public Issue Life Cycle.** (4) Same as Political Science M142D. Lecture, three hours; discussion, four hours, discussion when scheduled. Recommended preparation: Political Science 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 incentives of various actors—business, media, mass public, organized interests, Congress, the president, regulatory agencies, and courts and (2) ideology, cognitive biases, and ethical reasoning. P/NP or letter grading.

**M149. California Sustainable Development: Economic Perspective.** (4) Same as Environment M135 and Urban Planning M163. Lecture, three hours. Examination of complex arena of public policy and ethical concerns in planning and community development; necessity to balance demands from interest groups including planners, politicians, business and nonprofit sectors, general public; and interactions between local government implementation and federal and California laws and regulations. Letter grading.

**M152. Local Policymaking for Urban Planners.** (4) Same as Public Affairs M152. Seminar, three hours. Examination of emerging issues in public policy in urban planning. Letter grading.

**CM182. Science, Technology, and Public Policy.** (4) Same as Electrical and Computer Engineering CM182 and Public Affairs M164. Lecture, three hours. Recent and continuing advances in science and technology are raising profoundly important public policy issues. Consideration of criteria for the selection of social policies, including social, ethical, 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. Requisites: course 10A or Public Affairs 10. Limited to and required of seniors in Public Affairs minor. Production of research project examining depth of a particular policy issue in its social context, including political pressures involved and problems of implementation. Emphasis on skills of data acquisition and analysis, conceptualization, and written analysis and presentation. Letter grading.

**188SA. Individual Studies for USIE Facilitators.** (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior ULAS 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 ULAS 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. Examination 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 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.

**191A. Variable Topics Research Seminars: Public Policy.** (2) Seminar, two hours; outside study, four 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.

**191B. Variable Topics Seminar: Public Policy.** (4) Seminar, three hours; outside study, nine hours. Examination of particular subfields of public 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.

**191C. Variable Topics Research Seminars: Public Policy.** (2) Seminar, two hours; outside study, four 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.

**197. Individual Studies in Public Policy.** (2 or 4) Tutorial, four hours. Preparation: 3.0 grade-point average. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assignment of 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

**201. Principles of Microeconomic Theory I.** (4) Lecture, three hours; outside study, nine hours. First course in two-semester sequence (see course 204) to prepare students for economic analysis of public policy, with review of economic principles and basic microeconomic theory and policy applications. Consumer
202. American Political Institutions and Processes. (4) Lecture, three hours; outside study, nine hours. Designed to provide background necessary to develop strategies for dealing effectively with political environment of policy and administration. Discussion of U.S. constitutional arrangements, followed by instrumental and integrative examination of primary institutions of politics and processes of decision making. Introduction to the concept of lobbying and the political participation of organized interest groups, legislatures, bureaucracies, and courts. Letter grading.

203. Statistical Methods of Policy Analysis I. (4) Lecture, three hours; outside study, nine hours. First course in a two-term sequence (see course 204). Review of statistical principles useful to policy research and analysis. Topics include descriptive statistics, expectations, univariate distribution, probability, covariance, and correlation. Statistical techniques include random sampling, estimators, unbiasedness and efficiency, statistical inference, confidence intervals, and hypothesis testing. Letter grading.

204. Principles of Microeconomic Theory II. (4) Lecture, three hours; outside study, nine hours. Requisite: course 203. Second course in two-term sequence (see course 203) covering both theory and policy applications. Topics include monopoly, factor markets, imperfect competition, welfare economics, externallities, public goods, uncertainty, and interperiod optimization. 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, how policy agendas are set, how 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. Discussion of development of effective management strategies for dealing with today’s organizational environment. Topics include processes by which individuals interact within organizations, decision making, and interpersonal skills. Letter grading.

210. Methods of Policy Analysis. (4) Lecture, three hours; outside study, nine hours. Preparatory course that precedes M221A, M221B, M221C. Students in which they prepare major public policy 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.

211. Normative Issues in Policy Analysis. (4) Lecture, three hours; discussion, one hour. Limited to graduate students. Survey of some basic normative categories, arguments, and tools essential for addressing questions of public policy. Normative questions are those that concern whether actions, characters, or states of world are right or wrong—or, in less absolute cases, better or worse than possible alternatives. Allegedly value-free methods of analysis do not help decide policy questions. Certain policy questions raise normative concerns sooner or more urgently than others: those that go beyond matters of economic efficiency and touch on questions of human dignity, equality, justice, or national or cultural traditions. Some questions that seem to be subject to efficiency analysis raise some strong ethical concerns distinct from those of disagreement that exists over what efficiency is and in what cases or across what dimensions it ought to govern. Letter grading.

212. Social Welfare Policy. (4) Same as Social Welfare M209U.) 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 policies. Examination of development of infrastructure to support needs of children and families. S/U or letter grading.

213. Mental Health Policy. (4) Same as Social Welfare M209K.) 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 mental ill and services they are provided. S/U or letter grading.


215. Health Policy. (4) Same as Social Welfare M290M.) Lecture, three hours. Introduction to contemporary issues in healthcare financing and delivery; providing historical perspective on emergence of these issues. Examination of major public programs and their relationship to issues of access and cost. S/U or letter grading.

216. 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 governments. Letter grading.

217. Graduate Seminar in Environmental Economics and Policy. (4) (Same as Environmental Health Sciences M217.) Seminar, four hours. Preparation: undergraduate-level statistics, basic undergraduate microeconomics. Introduction to applied scholarship in environmental economics and policy. Enables students to become more proficient consumers and producers of social science research that explores questions of environmental policy. Exposed students to multidisciplinary sustainability broadly construed. Topics include health and economic impacts of climate change, adaptation to climate change, efficient and equitable design of environmental policies, and development of green technologies. Development of detailed empirical research proposal and short presentation. Letter grading.

218. Research Design and Methods for Social Policy. (4) (Same as Social Welfare M216.) Lecture, three hours; outside study, nine hours. Limited to graduate students. How to become more sophisticated consumers and producers of qualitative and quantitative social science research. In first half of course, formulating principles of research design; in second half, various data collection methods, including ethnography, interviewing, and survey design. Letter grading.

220. Transportation, Land Use, and Urban Form. (4) (Same as Urban Planning M256.) Lecture, three hours. Historical evolution of urban form and transportation systems, intrametropolitan location theory, recent trends in urban form, spatial mismatch hypothesis, land use, and transportation; travel prediction, generation, trip, distribution, mode split traffic assignment, critique of traditional travel forecasting methods and new approaches to travel behavior analysis. Letter grading.

221. Travel Behavior Analysis. (4) (Same as Urban Planning M221.) Lecture, courses 201 and 203, or Urban Planning 207 or 220B. Descriptions of travel patterns in metropolitan areas, recent trends and projections into future; overview of travel analysis methods (GIS); transportation in strong central city and polycentric city, neoliberal planning debate, rail transit and urban form. Letter grading.

222. Transportation Economics, Finance, and Policy. (4) (Same as Urban Planning M258.) Lecture, three hours. Overview of transportation finance and economics; concepts of efficiency and equity in transportation finance; historical evolution of highway and transit finance; public and private participation in road finance; toll roads, road costs and cost allocation, truck congestion; current issues in transit finance; transit fare and subsidies, policies, corporate and privatization of transit services. Letter grading.

223. Transportation and Environmental Issues. (4) (Same as Urban Planning M258.) Lecture, three hours. Regulatory structure linking transportation, air pollution, energy issues, energy policy, and air pollution; overview of transportation-related approaches to air quality enhancement; new car tailpipe standards; vehicle inspection and maintenance issues; transportation demand management and transportation control measures; alternative fuels and electric vehicles; corporate average fuel economy and global warming issues; growth of automobile worldwide fleet; automobile in sustainability debate. Letter grading.

224A. Introduction to Geographic Information Systems. (4) (Same as Urban Planning M206A.) Lecture, three hours; laboratory, one hour. Preparation: one graduate-level statistics course with one packaged statistics program. Principles of Geographic Information Systems (GIS) and applied techniques of using spatial data for mapping and analysis. Topics include data quality, digital image, spatial analysis, and information systems. Use of mapping and spatial analysis to address planning problem. Letter grading.

224B. Advanced Geographic Information System. (4) (Same as Urban Planning M206B.) Studio, three hours. Requisite: course M224A or Urban Planning M206A. Advanced topics in geographic information systems (GIS) utilizing geoprocessing tools in ArcMap, map design, and spatial analysis. Letter grading.

225. Education Policy and Education Inequality. (4) Seminar, three hours; outside study, nine hours. Limitation 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, private and public school choice, school accountability policies, interventions to improve school teacher quality, parenting and preschool interventions, and supplemental educational services. Letter grading.

227. 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 organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

228. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Social Welfare M241E and Urban Planning M288.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Various practical options for attaining social welfare objectives; research and field experience directed toward study of social problems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

229. Law and Management of Nonprofit Organiza- tions. (4) (Same as Management M229.) Lecture, three hours. Introduction to important legal, financial, and management issues confronting nonprofit organizations. Topics include how to start nonprofit tax-exempt status under IRC Section 501(c)(3), corporate governance, political and legislative activity restrictions, and strategic planning, fundraising, nonprofit accounting, and employment law. S/U or letter grading.
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 (s) 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 Radiation Oncology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culinating paper required. May be repeated. Individual contract required. P/NP or letter grading.

RADIOLOGICAL SCIENCES

David Geffen School of Medicine

Scope and Objectives

The Department of Radiation Oncology includes clinical divisions at the UCLA Medical Plaza and Rea- gan 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 cosmetic while eliminating the cancer. Characteristics 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 pathological characteristics of various radiations is essential.

The educational programs serve medical, dental, basic science (biology and physics), nursing, and radia- tion therapy students, and community and post-graduate physicians; there also is a four-year pro- gram 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

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 (s) 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.

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For more details on the Department of Radiation Oncology and courses offered, see the department website.
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.

For more details on the Department of Radiological Sciences, see the department website.

RELIGION, STUDY OF

Interdepartmental Program
College of Letters and Science

378 Kaplan Hall
Box 951511
Los Angeles, CA 90095-1511

Study of Religion
310-206-8799

Carol A. Bakhos, PhD, Chair

Faculty Committee

Faculty Committee
Carol A. Bakhos, PhD (Near Eastern Languages and Cultures)
John P. Carriero, PhD (Near Eastern Languages and Cultures)
Lowell Gallagher, PhD (English)
Jeffrey J. Guhin, PhD (Sociology)
Stephanie W. Jamison, PhD (Near Eastern Languages and Cultures)
Eleanor K. Kaufman, PhD (Comparative Literature, English, French and Francophone Studies)
Carla Gardina Pestana, PhD (History)
Allen F. Roberts, PhD (French and Francophone Studies, World Arts and Cultures/Dance)
Stefania Tutino, PhD (History)
Ronald W. Vroon, PhD (Slavic, East European, and Eurasian Languages and Cultures)
Luke B. Yarbrough, PhD (Near Eastern Languages and Cultures)

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, Anthropology 3, Asian M60, History 1A, 1B, 1C, 9A, 9B, 9C, 9D, 9E, M10A, 10B, 11A, 11B, Philosophy 2, 21, Study of Religion M10, M50, M60A through M60E, M60W, M61, M66W.

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. During their senior year students must complete the capstone seminar, Study of Religion 191.

A course may be taken twice, on different topics, for credit toward the major where repetition is allowed by the department offering the course. A maximum of two upper-division courses in an ancient language relevant to the course of study may be applied toward the major requirements with consent of the adviser.

A maximum of 12 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the major. Each course for preparation for the major and the major must be taken for a letter grade.

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 address.
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 is 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 where repetition is allowed by the department offering the course. A maximum of 4 units of special studies courses (197, 198, 199) approved by the advisor 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. Social, Cultural, and Religious Institutions of 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 synagogue; evolution of folk beliefs and year-cycle and life-cycle 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 to provide 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 nearly all religious traditions found in Los Angeles. Students are encouraged to take this course with a particular focus on the religious landscape of Los Angeles.

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.

M20. Introduction to Islam. (5) (Formerly numbered M109.) Lecture, three hours; discussion, one hour. Genesis of Islam, its doctrines, and practices, with readings from Qur’an and Hadith; studies of law and theology; piety and Sufism; reform and modernism. P/NP or letter grading.

M30. Christianity and the West. (5) (Same as Slavic M30.) Lecture, three hours; discussion, one hour. Survey of three major religious branches of Christianity—Eastern and Western Orthodoxy, Roman Catholicism, and Protestantism. Continuing emphasis on religious doctrine, practice, and cultural issues such as the role of women, the nature of tradition, the role of science, and the significance of the medieval period. 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 monotheisms of the ancient world—Judaism, Christianity, and Islam—historically and comparatively. Development of religious thought and practice in these traditions, with emphasis on how religious ideas and structures developed in the ancient world. P/NP or letter grading.

M52. 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 what health care might look like in the future. Artistic and literary expressions of selected faiths and spiritual practices throughout Southern California and to provide 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 nearly all religious traditions found in Los Angeles. Students are encouraged to take this course with a particular focus on the religious landscape of Los Angeles.

M55. 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 what health care might look like in the future. Artistic and literary expressions of selected faiths and spiritual practices throughout Southern California and to provide 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 nearly all religious traditions found in Los Angeles. Students are encouraged to take this course with a particular focus on the religious landscape of Los Angeles.

M60C. Introduction to Korean Religions. (5) (Same as Korean M60C.) Lecture, three hours; discussion, one hour. Knowledge of Asian languages 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 characteristics, and social impacts. P/NP or letter grading.

M60D. Religion in Classical India: Introduction. (5) (Same as South Asian M60D.) Lecture, three hours; discussion, one hour. Introduction to religious aspects of classical India—Vedic, Brahmanical, Hindu, Jain, and Buddhism—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 M60E.) Lecture, three hours. Introduction to historical development and contemporary practice of religions in Southeast Asia. Examination of indigenous religious beliefs and major textually based religions introduced to region, including Hinduism, Buddhism, Islam, and Christianity. P/NP or letter grading.

M60W. Introduction to Buddhism. (5) (Same as Asian M60W.) Lecture, three hours; discussion, one hour. Enforced prerequisite: 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 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 Buddhisms. Particular attention to problems involved in study of religion. Satisfies Writing II 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 interbeing Zen and other fundamental cultural and religious conceptions. To enter the Space of Dharma within Buddhist thought and practice, art, literary arts, society, and daily life. Letter grading.

M61W. Introduction to Chinese Religions. (5) (Same as Chinese M61W.) Lecture, three hours; discussion, one hour. Enforced prerequisite: 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 and doctrine, and themes common to Buddhism, Daoism, and Confucianism. Satisfies Writ- ing 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.

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 and led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grade only.

90. 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 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. 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 social 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. Possibility of how study of religion has interacted with other academic fields, especially biblical studies, anthropology, sociology, psychology, and evolutionary biology. P/NP or letter grading.

M105A. Bahá’í Faith in Iran: Historical and Sociological Perspectives. (4) (Same as Islamic Studies M105A.) Lecture, three hours. Focus on history of 20th-century Iran beginning with constitutional revolution, development and persecution of Bahá’ís, and latter’s relation to reform movements in Iran. May be taken independently for credit. P/NP or letter grading.

M105B. Bahá’í Faith in Iran: Survey of Bahá’í Scriptures and Thought. (4) (Same as Islamic Studies M105B.) Lecture, three hours. Readings in English. Analysis of major writings by Bab, Bahá’u’lláh, and ‘Abdu’l-Bahá. Emphasis on mystical and social principles. 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 Islamic Studies M105C.) Lecture, three hours. Focus on personalities of Bab, Bahá’u’lláh, and ‘Abdu’l-Bahá. Emphasis on historical and social context of Iran’s modern history. May be taken independently for credit. P/NP or letter grading.

M106A. Premodern Islam. (4) (Same as History M106A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of texts and objects from Hebrew Bible to medieval Islamic law, and Quranic and early Islamic sources. Examination of number of religious traditions, including Judaism, Christianity, and Islam. May be repeated for credit with consent of instructor. P/NP or letter grading.

M107. Islam in West. (5) (Same as Arabic M107 and Islamic Studies M107.) Lecture, three hours; discussion, one hour. Focus on early development of Islam with special attention to doctrine of nature of God, human responsibility, guidance, revelation and religion authority, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/NP or letter grading.

M108. Qur’an. (4) (Same as Arabic M108.) Lecture, three hours. Introduction to Quran, its early history, development of strong analytical writing and speaking skills. P/NP or letter grading.

M109. Phar’an. (4) (Same as Arabic M109.) Lecture, three hours. Focus on Arabic and cultural content of Quranic sources. Examination of both formal 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.

M110. Religion and Violence. (4) Seminar, three hours; discussion, one hour. Exploration of complexity of religious mobilization and legitimation of violence. Materials include theoretical texts by Rene Girard, Walter Burkhart, Jonathan Schear, David Rapport and other contemporary discourses about human rights, feminism, and contemporary reform movements. Primary sources include excerpts from Quran, Quranic interpretations of gender, and writings of Muslims, Christians, and reformists. Strong focus on analytical and writing skills through in-class assignments and discussion. Letter grading.

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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. Consideration of axis questions and issues that cross faith traditions. May be repeated for credit with consent of instructor. P/NP or letter grading.

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M116. Islamic History of Religion. (5) (Same as History M116C.) Lecture, three hours; discussion, one hour. Focus on history and development of early Islam. Consideration of historical dimension of people’s experience in U.S. Examination of number of religious traditions that have been important in this country, with emphasis on monotheistic traditions and contemporary religion in other aspects of American culture. P/NP or letter grading.

M117. Introduction to Biblical Studies. (4) (Same as Ancient Near East M117.) Lecture, three hours. Examination of different ways of interpreting the Bible, with emphasis on relating developments in religion to other fields of study. Letter grading.

M118. Biblical and Qur’anic Studies. (4) (Same as Middle Eastern M118.) Lecture, three hours. Survey of various early Islamic religious beliefs and practices, their origin, and development, with special attention to diversity of religious practice in ancient Iran and Canaan during 1st millennium BCE. P/NP or letter grading.

M119. Jewish and Islamic Studies. (4) (Same as Jewish Studies M119.) Lecture, three hours. Examination of the interplay of factors that, in the interactions between indigenous Jewish and Islamic cultural traditions, have intersected in specific historical and cultural contexts. May be repeated for credit with consent of instructor. P/NP or letter grading.

M120. Seminar in Islamic Studies. (4) (Same as History M120.) Lecture, three hours; discussion, one hour. Knowledge of Islamic is required. Development of Buddhism in Japan, in interaction with both Japanese and immigrant cultures from other countries. Letter grading.

M121. Buddhist Studies. (4) (Same as Religious M121.) Lecture, three hours; discussion, one hour. Knowledge of Buddhist is required. Development of Buddhism in India, in interaction with both Indian and immigrant cultures from other countries. Letter grading.

M122. Buddhist Studies. (4) (Same as Religious M122.) Lecture, three hours; discussion, one hour. Knowledge of Buddhist is required. Development of Buddhism in India, in interaction with both Indian and immigrant cultures from other countries. Letter grading.

M122. Buddhist Studies. (4) (Same as Religious M122.) Lecture, three hours; discussion, one hour. Knowledge of Buddhist is required. Development of Buddhism in India, in interaction with both Indian and immigrant cultures from other countries. Letter grading.

M123. Jewish and Islamic Studies. (4) (Same as Jewish Studies M123.) Lecture, three hours. Examination of the interplay of factors that, in the interactions between indigenous Jewish and Islamic cultural traditions, have intersected in specific historical and cultural contexts. May be repeated for credit with consent of instructor. P/NP or letter grading.
The Scandinavian Section

Undergraduate Study

The Scandinavian Languages and Cultures and Nordic Studies majors are designated capstone majors. Under the guidance of faculty members, students

SCANDINAVIAN SECTION

College of Letters and Science

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Scandinavian Section
310-825-6828

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Jesse L. Byock, PhD
James R. Massengale, PhD
Mary Kay Norseng, PhD
Ross P. Shideler, PhD

Associate Professor
Arne O. Lunde, PhD

Lecturer
Patrick J. Wen, PhD

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.

ROTC PROGRAM

See Aerospace Studies (Air Force), Military Science (Army), and Naval Science (Navy/Marines).
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.

**Undergraduate 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. Non-Scandinavian students 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 Courses**

**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 specific command of the economics, politics, environments, and histories of the Nordic region
- 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

**Preparation for the Major**

Required: Nine courses from the following five tracks, with at least one course in four of the tracks:


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
- Working knowledge of scholarly discourse in Scandinavian languages and cultures
- 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

**Preparation for the Major**

Required: Nine courses from the following five tracks, with at least one course in four of the tracks:


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 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 50.

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 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.
11. Elementary Norwegian. (4) Discussion, four hours. P/N or letter grading.

14A-14B. Accelerated Elementary Norwegian. (6–8) Lecture, four hours. Requisite for course 14B: course 14A. Accelerated courses 14A and 14B equivalent to combined 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/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 grading.
21. Elementary Danish. (4) Discussion, four hours. P/N or letter grading.
40. Heroic Journey in Northern Myth, Legend, and Epic. (4) Lecture, three hours. Not open for credit to students with credit for course 40W. All readings in English. Comparison of journeys of heroes. Readings in mythology, legend, folktales, and epic, including Nibelungenlied, Volsunga saga, Eddas, and Beowulf. Cultural and historic backgrounds to texts. P/N or letter grading.

Upper-Division Courses

105A-105B. Intermediate Swedish. (4–4) (Formerly numbered 4, 5) Lecture, four hours. Enforced requisite for course 105A: course 3; for course 105B: course 105A. P/N or letter grading.
105C. Advanced Swedish. (4) (Formerly numbered 105.) Lecture, three hours. Enforced requisite: course 105B. Readings, composition, and conversation in Swedish. May be repeated once for credit. P/N or letter grading.
106A-106B. Intermediate Norwegian. (4–4) (Formerly numbered 14, 15.) Lecture, four hours. Enforced requisite for course 106A: course 13; for course 106B: course 106A. P/N or letter grading.
106C. Advanced Norwegian. (4) (Formerly numbered 106.) Lecture, three hours. Enforced requisite: course 106B. Readings, composition, and conversation in Norwegian. May be repeated once for credit. P/N or letter grading.
107C. Advanced Danish. (4) (Formerly numbered 107.) Lecture, three hours. Enforced requisite: course 107B. Readings, composition, and conversation in Danish. May be repeated once for credit. P/N or letter grading.
131. 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 C231A. Letter grading.
123A. Elementary Old Norse. (4) Lecture, three hours. Introduction to grammar and pronunciation of Old Norse. Selected readings from sagas and Prose Edda. P/N or letter grading.
123C. Advanced Old Norse. (4) Lecture, three hours. Enforced requisite: course 123B. Readings from a variety of Old Norse-Icelandic texts. Continuation of development of translation skills, as well as familiarity with Old Norse-Icelandic textual and philological, linguistic, literary, and cultural contexts surrounding their interpretation. P/N or letter grading.
C133A. 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 history and society that produced these narratives. Concurrently scheduled with course C233A. Letter grading.
133C. Social Network Analysis and Icelandic Fami- ly Saga. (4) Seminar, three hours. Exploration of how character interactions can be analyzed for developing social network view of stage on which saga action plays out. Examination of how to best to model sagas as dynamic social networks and learn about network analysis (SNA) that deepen understanding of saga actions. SNA provides additional opportunity to explore experimental situations and recognize alternative social pathways that may have led to other types of community formations. Study of Icelandic saga to- ward increasing complexity, developing understanding of characters and character roles, and using this as basis of preliminary investigations. P/N 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. Reading and examination of this lore that is chiefly preserved in two collections traditionally called Poetic (or Elder) Edda and Prose (or Younger) Edda. P/N or letter grading.
C141A. Theory of Scandinavian Novel. (4) Seminar, three hours. 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 sched- uled with course C241A. P/N or letter grading.
141B. Nordic Poetry. (4) Seminar, three hours. Read- ings in English translation. Survey of Nordic poetry from Middle Ages to present, including Poetic Edda of 13th-century Iceland, Scandinavian ballad tradition, some folk poetry from Finland’s national epic Kalevka, and modern lyric. Reading of essays on translating poetry and consideration of particular problems poetry presents for translators, as well as what is lost and/or gained in translation. Study of poetry within following contexts: role(s) poetry has served in Nordic societies through its rise in 19th century and its 20th-century influences from and contributions to European literary movements; and special status of poetry in preserving small national languages and literatures, as indicated by financial support from Nordic states and publishers of contemporary poems and poetry. P/N or letter grading.
141C. 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 Jacobsen, Alexander Kielland, Amalie Skram, Carl August Strindberg, in context of emergence of modern Nordic theater 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, Pär Lagerkvist, Kjeld Hamre, and Ruben Palm. Examination of author’s 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 modern Nordic theater 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, Pär Lagerkvist, Kjeld Hamre, and Ruben Palm. Examination of author’s 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.

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 with their Martin Beck series, and once they had detective fiction for years. Maj Sjöwall and Per Wahlöö were famous worldwide in 1960s and 1970s, and their work, as well as its literary transgression of aesthetic theory, historiography and biography, feminist theory, postmodern and trans-cultural theory, and identity. Secondary readings include texts by Bhabha, Gilbert and Gubar, JanMohamed, Kierkegaard, Nietzsche, Ngugi, Said, and Thumman, P/NP or letter grading.

148A. Hallöldr Laxness. (4) Lecture, three hours. Reading and discussion of works in English translation by Icelandic Nobel laureate Halldór Guðmundsson Laxness (1902 to 1998), P/NP or letter grading.

152. Backgrounds of Scandinavian Literature. (4) Seminar, three hours. Readings and discussion of representative texts selected from literature of medieval, Renaissance, baroque, and Enlightenment periods. 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 both English and German Romantic writers and artists. P/NP or letter grading.

155. Modern Breakthrough. (4) Seminar, three hours. Readings and discussion of works from Roman tic, realistic, and post-Romantic literature of Scandinavia in 19th century. P/NP or letter grading.

158. Scandinavian Literature of 20th Century. (4) Seminar, three hours. Readings and discussion of selected texts of major 20th-century Swedish authors. P/NP or letter grading.

157. Contemporary Nordic Literature. (4) Seminar, three hours. Readings and analysis of selected texts by major 20th-century Swedish authors. P/NP or letter grading.

161. Introduction to Nordic Cinema. (4) Seminar, three hours. Designed for students in general and for those preparing for more advanced studies in Scandinavian cinema and popular genres such as war films, horror, noir, and other key Swedish filmmakers. Particulars of filmmakers within multiple frameworks of ability-theory, and queer-theory approaches. Development of critical thinking and close textual analysis skills, and understanding and appreciation of genre that continues to pervade popular culture. Readings in English and subtitles. P/NP or letter grading.

162. Nordic Folk and Fairy Tales. (4) Seminar, three hours. Exploration of Nordic version of classic tale-types such as Dragon Slayer, Cinderella, Hansel and Gretel, and King Lindorm in larger conceptual contexts. Reading of important works of Nordic and international folktales, 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 that continues to pervade popular culture. Readings in English and subtitles. 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, Cinderella, Hansel and Gretel, and King Lindorm in larger conceptual contexts. Reading of important works of Nordic and international folktales, 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 that continues to pervade popular culture. Readings in English and subtitles. P/NP or letter grading.

173A. Popular Culture in Scandinavia. (4) Seminar, three hours. Examination of popular culture in Scandinavian through study of contemporary Scandinavian literary, film, music, and art. Investigation of how issues such as gender, ethnicity, disability, sexuality, and race are represented in film correspond to historical reality of Vikings? 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, disability, sexuality, 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 this most powerful of Swedish filmmakers within 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 C266A. 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 century between 1919 and 1964. Contextualization of silent and sound works of this most personal of filmmakers within multi-faceted world of international film industry, transnational European cinema, and issues of auteur filmmaking. Readings by key Dreyer scholars such as David Bordwell, Ray Carney, Paul Samuels, Mark Stenersen, and others, as well as Dreyer’s own writings on cinema. All films have English intertitles or subtitles. Concurrently scheduled with course C266C. P/NP or letter grading.

C171. Introduction to Scandinavian Folklore. (4) Seminar, three hours. Exploration of tales and legends of Scandinavian tradition as well as to interpretive methodologies that strive to answer question why do people tell stories that they tell? Concurrently scheduled with course C172A. Letter grading.

C172A. Nordic Folk and Fairy Tales. (4) Seminar, three hours. Exploration of Nordic version of classic tale-types such as Dragon Slayer, Cinderella, Hansel and Gretel, and King Lindorm in larger conceptual contexts. Reading of important works of Nordic and international folktales, 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 that continues to pervade popular culture. Readings in English and subtitles. P/NP or letter grading.

C174A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Exploration of immigrant and minority 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, Afghanistan, Cambodia, and countries throughout Africa. Cultural landscape previously marked by relatively high degree of cultural homogeneity now affected by greater 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. Contextualization of emergence of new voices in Nordic cultural landscape, represented by major new cultural trends including work by Icelandic Nobel laureate Halldór Guðmundsson Laxness (1902 to 1998), P/NP or letter grading.
197. Individual Studies in Scandinavian, (2 to 4) Tutor, 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 for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Scandinavian. (4) Tutor, three 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

C231. 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 C131. Graduate students do additional readings and write more extensive research papers. Letter grading.

C233A. Saga. (4) Seminar, three hours. Sagas are largest intact medieval text in English, with selections from different types of Icelandic sagas. Consideration of history and society that produced these narratives. Concurrently scheduled with course C133A. Graduate students do additional readings and write more extensive research papers. Letter grading.

C23B. Advanced Old Norse Prose. (4) Lecture, three hours. Requisite: course 132B. Readings of major saga texts. Also, several directed exercises, paper and written research papers of greater length and depth. S/U or letter grading.

C237. Old Norse Literature and Society. (4) Seminar, three hours. Critical issues in medieval Scandinavian studies. 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. Readings and discussion of selected plays by Henrik Ibsen. 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.

C246A. Henrik Ibsen. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Readings and discussion of selected plays by Henrik Ibsen. May be 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.

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 Norwegian 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 film 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 broader and critical method for discussing films in general and Danish cinema in particular. Other readings include selections from Hjort, Sandberg, Tangherlini, and other Scandinavian theorists. Concurrently scheduled with course C163A. S/U or letter grading.

C265C. Introduction to Swedish Cinema. (4) Lecture, three hours. Introduction to and exploration of history of Swedish cinema from silent era to present day. Films 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 Sjoberg, Mai Zetterling, Viggo Sjoman, Jan Troell, Lukas Moodysson, and Josef Fares. Development of Scandinavian high art cinema and popular genres such as rural romanticism, melodrama, sex, crime, and horror. All films have English subtitles. May be concurrently scheduled with course C165C. S/U or letter grading.

C266C. Introduction to Norwegian Cinema. (4) Seminar, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present day. Films include auteurs in international canon, such as Roald Dahl, Edith Carlmar, Niels Gaup, Erik Skopldjerg, 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 C166C. S/U or letter grading.

C267C. 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 advisor. May be concurrently scheduled with course C176C. S/U or letter grading.

C266A. 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 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. May be concurrently scheduled with course C166A. S/U or letter grading.

C266C. 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 a whole. Focus on films that were made during nearly half a century between 1919 and 1964. Contextualization of silent and sound works of this most personal of filmmakers within multiple frameworks: Danish national film industry, transnational European cinema, and -
M271. Study of Oral Tradition: History and Method
Course, three hours. Exploration of scholarly and literary attempts to study, define, analyze, promote, and/or appropriate oral traditions, from Homer and ancient Greece to origins 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 rapping. S/U or letter grading.

M272. Collecting Oral Tradition
Course, 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
Course, three hours. Exploration in depth of variety and history of, and scholarship on, a particular oral traditional genre (e.g., balad, song, epic, proverb, riddle, folktales, legend) or a set of closely related oral traditional genres. S/U or letter grading.

C274A. Minority Cultures in Scandinavia
Seminar, three hours. Exploration of emergence of immigrant cultures in Nordic region. Beginning in 1990s, 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 Rinkeby Swedish. Concurrently scheduled with course C174A. S/U or letter grading.

C275. Introduction to Sami Language and Culture
Course, four hours. Discussion of Sami language (Lappish) and culture with emphasis on traditional and modern practices, national and regional history, and daily life in Sami communities. Concurrently scheduled with course C175. S/U or letter grading.

C280. Literature and Scandinavian Society
Seminar, three hours. 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 Seminars, to be arranged with faculty member. Preparation: apprentice 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.

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 Scandinavians. 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
1037 Young Hall
Box 951569
Los Angeles, CA 90095-1569

Arlene A. Russell, PhD, Co-Chair
Patricia E. Phelps, PhD, Co-Chair

Structure 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 1A, 1B, 14A, 14B, 14C, 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, 1B, 4AL, 4BL (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 110 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 100SL, (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, 121, 123, 125, 128, 130, 132, 133, 134, 138, 146, 168, M182A/M194A, M183A/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
Lower-Division Courses
1SL. Classroom Practices in Elementary School Science
(2) Seminar, 90 minutes; fieldwork, three hours per week for eight weeks. Introduction for prospective science teachers to field of elementary education and teaching and learning of science in elementary school classrooms. P/NP grading.

2SL. Classroom Practices in Middle School Science
(2) Seminar, 90 minutes; fieldwork, three hours. Recommended requisite: course 1SL. Introduction for prospective science teachers to field of secondary education and teaching and learning of science in middle school classrooms. 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. 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.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated 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

100SL. Classroom Practices in High School Science. (5) Seminar, three hours; service learning field work, three hours. Recommended requisite: course 151L or 100SL. Introduction for prospective science teachers to field of secondary education and teaching and learning of science in high school classrooms. Pairs of students are placed in local high school classrooms to observe, participate, and assist mentor teachers in instruction. Discussion of learning in high school curricula, cognitive development of students at this level, and best means to teach appropriate science concepts at this level. 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 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. Individual honors contract required. Honors content noted on transcript. Letter grading.

SLAVIC, EAST EUROPEAN, AND EURASIAN LANGUAGES AND CULTURES

College of Letters and Science
322 Kaplan Hall
Los Angeles, CA 90095-1502

Slavic, East European, and Eurasian Languages and Cultures
310-825-3856
Department e-mail

Ronald W. Vroon, PhD, Chair

Faculty Roster

Professors
Roman Koropeckyj, PhD
Gail D. Lenhoff, PhD
Igor Plishtikov, PhD
Ronald W. Vroon, PhD (Vladimir and Lydie Markov Professor of Russian Literature)

Professors Emeriti
Henning Andersen, PhD
Peter C. Hodgson, Jr., PhD
Emily R. Klein, PhD
Aleksandr L. Osipov, PhD

Assistant Professor
Vadim Shneyder, PhD

Senior Lecturers
Susan C. Kresin, PhD
Anna Kudyma, PhD

Lecturers
Melinda Borbely, MA
Marianna Chodorowska-Plich, PhD
Yelena Furman, PhD
Georgiana Galateanu, PhD
Agnieszka Jezyk, PhD
Viktoria Lejko-Lacan, PhD

Adjunct Professor
Vladimir Paperny, PhD

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 1 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.

Undergraduate Study

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 previously acquired subject matter knowledge and skills to plan a research project and write a substantial academic paper. They also gain experience engaging in scholarly discourse, preparing appropriate media for public presentation, and submitting their work to an academic journal.
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 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, 103C, 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 152, 187A through 187M, Russian C124G, Serbian/Croatian 187A through 187M, Ukrainian 152, 187A through 187M; one of the three courses may be selected from Russian M118, 119, 120, C124C, C124D, C124N, C124T.

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

Capstone Major

Learning Outcomes

The Russian Language and Literature major has the following learning outcomes:

- Incorporation of knowledge acquired to formulate an independent study topic and research project
- Selection and use of original sources in Russian or a related language to prepare a thesis
- Acquisition of skills relating to development of discourse and argument that is clear, reasoned, reflective, informed by evidence, and aimed at deciding what to believe
- Determination of what information should be developed and analyzed
- Completion of conference presentation that includes fielding audience questions
- Mastery of oral communication including interpersonal communication, presentation, and discussion
- Editing of the research paper into a journal article, and submission of it to an academic journal

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


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

Capstone Major

Learning Outcomes

The Russian Studies major has the following learning outcomes:

- Incorporation of knowledge acquired to formulate an independent study topic and research project
- Selection and use of original sources in Russian or a related language to prepare a thesis
- Acquisition of skills relating to development of discourse and argument that is clear, reasoned, reflective, informed by evidence, and aimed at deciding what to believe
- Determination of what information should be developed and analyzed
- Completion of conference presentation that includes fielding audience questions
- Mastery of oral communication including interpersonal communication, presentation, and discussion
- Editing of the research paper into a journal article, and submission of it to an academic journal

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:

- Russian 6 or 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C
- Russian 6 or 102A, 102B, 102C, 103A, 103B, 103C
- Russian 6 or 102A, 102B, 102C, 103A, 103B, 103C

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.

Slavic, East European, and Eurasian Languages and Cultures / 723

During their senior year, students must also take Slavic 191TA, 191TB, 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.

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 198A, 198B, 198C 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 thesis. Students who enroll in the honors program are exempt from taking the standard course sequence (Slavic 191TA, 191TB, 191TC).

The honors thesis is intended to be a substantial piece of original scholarship at least 40 pages in length exclusive of front matter, appendices, and bibliography (25 pages to satisfy the regular capstone senior thesis major requirement). Students are required to use a Slavic, east European, or Eurasian language in their research, with the scope of the language work to be determined in consultation with their faculty adviser. Evaluation of the honors thesis is made by the faculty adviser.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Slavic 198A, 198B, 198C with grades of B or better.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Slavic 198A, 198B, 198C with grades of A– or better.

Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

In the event that a student does not complete the departmental honors program or qualify for departmental honors/highest honors, their paper may count toward the regular capstone senior thesis requirement for their major (25 pages minimum to satisfy requirement).

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.

To enter the minor students must be 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 Lower-Division Course (5 units): Central and East European Studies 91 or Slavic 90.

Required Upper-Division Courses (28 to 31 units): (1) One three-quarter 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 (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 121C4D, Serbian/Croatian 154, or Ukrainian 152; (3) 12 units of second-year or higher-level language courses to be selected from Czech 102A, 102B, 102C, 187A through 187M, Hungarian 102A, 102B, 102C, 187A through 187M, Polish 102A, 102B, 102C, 187A through 187M, Romanian 102A, 102B, 102C, 187A through 187M, Serbian/Croatian 102A, 102B, 102C, 187A through 187M, Ukrainian 102A, 102B, 102C, 187A through 187M (187 courses are 2 units each); OR three courses dealing directly with any central and east European culture to be selected from Central and East European Studies M120, 125, 126, Czech 155, Ethnomusicology 161C, History 120A through 120D, Polish 152A, 152B, 152C, Romanian 152, Russian 121C4D, Ukrainian 152.

With approval of the undergraduate adviser, other related upper-division courses 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.

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 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 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.

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.

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.

Russian Literature Minor

To enter the Russian Literature 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 M11B, 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.

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.
Russian Studies Minor
To enter the Russian Studies 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, 90A, 90B, or 908W.

Required Upper-Division Courses (20 units): Five courses in Russian-related fields, with a minimum of three courses selected from History M127A through 127D, Political Science 128A, 128B, 156A.

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.
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 Slavic, East European, and Eurasian Languages and Cultures offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Slavic, East European, and Eurasian Languages and Cultures.

Bulgarian
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.

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.

91. Culture and Society in Central and Eastern Europe. (5) Lecture, three hours; discussion, one hour. Interdisciplinary course to introduce students 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 in 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.

Upper-Division Courses

Upper-Division Courses

101A-101B-101C. Elementary Bulgarian. (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 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.

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.

91. Culture and Society in Central and Eastern Europe. (5) Lecture, three hours; discussion, one hour. Interdisciplinary course to introduce students 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 in 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.

Upper-Division Courses

Upper-Division Courses

101A-101B-101C. Elementary Bulgarian. (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 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 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 maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

125. Interwar Central European Prose. (4) Formerly numbered Slavic 125.) Lecture, three hours. Analysis of selected novels, stories, plays, and essays of representative authors of 1920s and 1930s in translation. Special attention to relation between literature and historical and ethnic concerns. P/NP or letter grading.

126. Coldwar Central European Culture. (4) Lecture, three hours. Examination of coldwar Central European culture through prism of prosely fiction, essays, and film from 1947 to 1989. Analysis of strategies of Polish, Czech, Hungarian, and East German writers as articulation of tensions, contradictions, and compromises informing communist rule in central and eastern Europe, with focus on post-communism in former communist countries. Sensitizes students to complexity of issues in region and helps them better understand multiplicity of causes of present situation. Interdisciplinary study, drawing on sociological, women's studies, articles, and short fiction by 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 rendered in fictional form by women writers from region. P/NP or letter grading.

127. Central European Culture after Fall of Communism. (4) Lecture, three hours. Examination of Central and East European culture through lens of literature, film, visual arts, music, and other artifacts of material culture from 1989 onward. Analysis of Polish, Czech, Slovak, Romanian, Hungarian, former Yugoslavian and East German writers, essayists, filmmakers, musicians, visual artists, and graphic novelists in order to reflect on nature of political and societal changes after fall of communism. 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: Central and Eastern Europe. (1) Lecture, one hour. Seminar: variable topics selected as adjunct to upper-division lecture course. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

191. Variable Topics Research Seminars: Central and Eastern Europe. (1) Lecture, one hour. Seminar: variable topics selected as adjunct to upper-division lecture course. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
Czech

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.

89CH. 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-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.

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.

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.

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.

101A-101B-101C. Elementary Hungarian. (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, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

102A-102B-102C. Advanced Hungarian. (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.

Hungarian

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 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.

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 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-101B-101C. Elementary Hungarian. (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, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

101A-101B-101C. Elementary Hungarian. (4–4–4) 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. Introduction to grammar, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

101A-101B-101C. Elementary Hungarian. (4–4–4) 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. Introduction to grammar, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

101A-101B-101C. Elementary Hungarian. (4–4–4) 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. Introduction to grammar, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

101A-101B-101C. Elementary Hungarian. (4–4–4) 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. Introduction to grammar, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

Lithuanian

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 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.

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 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-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, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

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, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.
102C. Each course may be waived with consent of instructor. Review and reinforcement of grammar introduced in first year of study, expansion of vocabulary, further training in written and oral expression. 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.

Polish

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. 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 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-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, literature, and culture. P/NP or letter grading.

102A-102B-102C. Advanced Romanian. (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.

152A-152B-152C. Survey of Polish Literature. (4–4–4) Lecture, three hours. Lectures and readings in English. Survey of Polish literature and culture. 152A. From the Middle Ages to Neoclassicism; 152B. Reimaging a Nation. Readings in 19th-century Polish literature and culture. 152C. Dreaming, Mocking, and Writing “as if.” Readings in modern Polish literature and culture.

C180. Variable Topics in Polish Literature. (4) Seminar, three hours. Reading knowledge of Polish 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.

187A. Advanced Tutorial Instruction in Polish. (2) Tutorial, one hour; laboratory, one hour. Preparation: two years of Polish and/or Polish placement test. Tutorial and guided independent study of advanced Polish: 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 Polish. (2 each) 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. May be repeated for credit with topic change. Concurrently scheduled with course C180. S/U 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 Polish Literature. (4) Seminar, three hours. Reading knowledge of Polish 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.

Rumanian

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

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, literature, and culture. 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. May be waived with consent of instructor. Basic courses in Romanian language, literature, and culture. P/NP or letter grading.


152. Survey of Romanian Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of Romanian literature from Middle Ages to present. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Romanian. (2) Tutorial, one hour; laboratory, one hour. Enforced requisite: course 102C or Romanian placement test. Tutorial and guided independent study of advanced Romanian: 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 Romanian. (2 each) 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. 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. 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.
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; laboratory, one hour. Requisite: 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.

10A-15B. Accelerated Elementary Russian. (8–7) Recitation, five hours; laboratory, two hours. Material of first-year Russian course to be covered in two terms, with extensive use of language laboratory and the Russian Room. 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.


25. Great Russian Novel. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 25W. Knowledge of Russian not required. Study of major works by great 19th-century Russian novelists. P/NP or 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, how cinema has served interests of state, and how it has defied 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 increased dramatically. From Russian history and culture and the former Soviet territories, key distinctions in humanities have become unclear, including fundamental confusion between limits of Slavic and Near Eastern studies. Examination of relation of Russian history and culture to its borders: Caucasus, Central Asia, China, and Japan. P/NP or letter grading.

39. 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. 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.

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 art. Emphasis on vocabulary development and review of Russian state by Muscovy, Autocracy and its borders: Caucasus, Central Asia, China, and Japan. P/NP or letter grading.

91. Seminars. (1–3) Seminar, one hour. Limited to 25 students. Not open for credit to students with credit for courses 91A-91B. Taught in Russian. Designed for students with high proficiency in Russian. Intensive seven-week course in Russian language covering reading, writing, speaking, listening, and grammar. Literature selected in Russian history also included. Opportunity to interact with Russian speakers outside of class and serve as volunteers. Part of Russian Flagship Program Abroad. May not be repeated for credit. Offered in summer only. Letter grading.

111A-111B-111C. Russian Flagship Program Abroad: Superior Russian. (5–5–5) Lecture, three hours. Enforced requisite: course 110 or equivalent coursework as determined by department. Course 111A is enforced requisite to 111B, which is enforced requisite to 111C. Taught in Russian. Designed for students with advanced proficiency. Development of all four language skills, and official correspondence. Acquisition of advanced syntactical structures and expansion of lexical repertoire. Emphasis on formal interpersonal and presentational modes. Letter grading.

112A-112B-112C. Russian Flagship Program Abroad: Russian Literature and Culture. (4–4–4) Lecture, three hours. Enforced requisite: course 110 or equivalent coursework as determined by department. Course 112A is enforced 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. 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 as determined by department. Course 113A is enforced requisite to 113B, which is enforced requisite to 113C. Taught in Russian. Use of discourse practices (speaking, listening, reading, and writing) to participate effectively in discussions of professional topics and situations outside of course. Opportunity to communicate in Russian in all professional and social activities. Experiential learning includes opportunities to participate in courses with local students, providing service to community, or interning in one business. Letter grading.

M118. History of Russia, Origins to Revolution. (4) (Same as History M127A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Kievan 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.

119. Golden Age and Great Realists. (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. Survey of 19th-20th century Russian literature (Pushkin, Gogol, Tolstoy, Dostoevsky, Chekhov) in its cultural, political, and social context. P/NP or letter grading.

120. Literature and Revolution. (4) Lecture, three hours. Designed for juniors/seniors. Majors are advised to take this course in their sophomore year. Lectures and readings in English. Survey of Russian literature today, with examination of status of Russia’s classics(a) traditions for artists and audiences working in modern Russia. Death of one tradition and attempts at creation of another lead away from written word into
neighboring forms of expression, primarily visual. Consideration of battles of modern storytelling, with cinema, television, animation, music videos, and internet. Letter grading.

122. Siberia. (5) Lecture, three hours. Introductory survey in which current cultural and ecological issues are situating in light of geographical and historical background, 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 locus for closer examination of the phenomenon of the Russian soul and geographic curiosity 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 (The Gift), American novelist (Loita), autobiographer (Speak Memory), and critic. Concurrently scheduled with course C224N. 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 novels, 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.


M127. 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. Emphasis on Russian women expressing their views in works by both Russian and European authors. 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 emphasis on language(s) in field have been reconsidered in light of society's increasingly visual workings. New attitude toward our own changing culture (i.e., toward its future) has equal value if applied retrospectively to multiple cultures of one erstwhile

empire. In territory where many tongues or 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 reflect change and social change much better than ponderous grandeur of feature-length cinema. 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 change or instructor change. 130A. Introduction to Analysis of Russian Poetry. Role of biography, cultural subtexts, metrical, and form in interpreting poetic texts. 130B. Poetry of Russian Nationalism, 1860-1917. Lectures and readings of major works of late 18th and 19th centuries in their historical and cultural contexts. 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 incipient 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 national consciousness, relationship between word and image in those acts of persuasion, how even fleeting dogma cannot escape importance of audience desires, different forms of social existence as refuge from broader changes, and what values of world's biggest country are. Role of language in self-definition. Is selfhood verbal or visual matter? P/NP or letter grading.

132. Comparative Literature M132.) Lecture, 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 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.

140A-140D. Russian Prose Fiction. (4 each) Lecture, three hours. Preparation; third-year Russian recommended. Lectures and readings in Russian. May be repeated for credit with topic and/or instructor change. 140A. Introduction to Analysis of Russian Narrative Prose. Close analysis of genre, narrative, and rhetorical strategies and interplay of literature, history, and culture. 140B. Russian Romantic Prose. Gogol, Turgenev, Pushkin, and others. Letter grading.

140C. Great Realists. Dostoevsky, Tolstoy, and others.


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 C224O. P/NP or letter grading.

167A. Advanced Tutorial Instruction in Russian. (2) Tutorial, hour-long class on Russian topics. Consent of instructor required: course 102C or Russian placement test. Tutorial and guided independent study of advanced Russian. Advanced conversation, composition, vocabulary development, and selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

167B-167M. Advanced Tutorial Instruction in Russian. (2) Tutorial, one hour; laboratory, one hour. Preparation: previous coursework in Russian. Re- placement test. Tutorial and guided independent study of advanced Russian: advanced conversation, composition, vocabulary development, and 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 oral presentations, 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. Involves study daily 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 requires instructor's consent. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Russian Literature. (4) Seminar, three hours. Requisite: course 3. Reading and discussion of selected authors; culminating in major paper required. 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. Requisite: course 102C. Conducted in Russian. Reading and analysis of texts with focus on vocabulary, pronunciation, and style, respectively, in three consecutive terms. S/U or letter grading.


211A. Literature of Medieval Rus'. (4) Lecture, three hours. Required for MA (literature). Survey of the literature from its beginning through the Kievan and Muscovite periods up to end of the 17th century.

211B. 18th-Century Russian Literature. (4) Lecture, three hours. Required for MA (literature). Lectures and readings in major texts of 18th-century Russian writers. Analysis of related literary works.


212B. Age of Realism. (4) Lecture, three hours. Required for MA (literature). Survey devoted to emergence of critical and psychological realism, beginning with early works of Turgenev, Goncharov, and Dostoevsky, moving to major novels of Tolstoy, Dostoevsky, and Saltykov-Shchedrin, and concluding with works of the prerevolution period, especially short stories of Chekhov. S/U or letter grading.

213A. 20th-Century Russian Literature, 1890 to 1929. (4) Lecture, three hours. Required for MA (literature). 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, Belyi, Khlebnikov, Pasternak, Platonov, and others. S/U or letter grading.

213B. 20th-Century Russian Literature, 1930 to 1989. (4) Lecture, three hours. Required for MA (literature). 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, Belyi, Khlebnikov, Pasternak, Platonov, and others. S/U or letter grading.

text of poetry and prose, metropolitan and emigre, of recent vintage. May be repeated for credit. Letter grading.


C224P. 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 C124P. S/U or letter grading.

C224T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in English. Early and late stories and novels, excerpts from the diaries and the novel major such as War and Peace or Anna Karenina. Concurrently scheduled with course C124T. S/U or letter grading.

C240. 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 C170. S/U or letter grading.


270. Russian Poetics. (4) Lecture, three hours. Introduction to technical study of Russian poetics and verification, with emphasis on linguistics, stanza, form, rhyme, and development of various verse types from the 18th into the 20th century.

277. Studies in Russian Literature: Nabokov. (4) Lecture, three hours. Lectures and readings in English. Russian novelist (The Gift, American novelist (Lolita), autobiographer (Speak Memory), and critic. Concurrently scheduled with course C124N. S/U or letter grading.

296. Seminar: History of Russian Culture. (4) Discussion, three hours. Reading and discussion on selected topics in history of Russian culture.

298. 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 applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

299HC. 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. Letter grading.

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. 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. Letter grading.

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 areas that are 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 overlords, 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, 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.

50. Introductory Seminar: Writing of Study. (5) As Asian M20, Indo-European Studies M20, Near Eastern Languages 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 independence mark these centers as 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.

40. Christianity East and West. (5) (Same as Religion M40.) Lecture, three hours; discussion, one hour. Survey of three major historical branches of Christianity—Eastern and Oriental Orthodox, Roman Catholicism, and Protestantism, contrasting their historical, dogma, culture, and community structures develop in those three traditions. P/NP or letter grading.

87. Languages of Los Angeles. (5) Lecture, three hours; discussion, one hour. Exploration and interdisciplinary investigation of Los Angeles as multicultural and multilingual metropolis Research and analysis of features of major linguistic communities in Los Angeles and surrounding areas (Armenian, Cape Verdean, Korean, Russian, Spanish, and others), with particular attention to social and cultural factors that play role in maintenance of language use in any given context. Familiarization with discipline and methodologies of urban linguistics as part of urban geographical studies and as tool for investigating growing linguistic and cultural diversity of America’s large cities. P/NP or letter grading.

Slavic

Lower-Division Courses

101A-101B-101C. Elementary Serbian/Croatian. (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 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. Required: 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 placement in 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.
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. Individual contract required. 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 and led by lecture course instructor. May be repeated for credit. Individual 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 institutions of Slavic 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. Required for students enrolled in college research for foreign language 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.

Introduction to Slavic Civilization.

Upper-Division Courses

CM114. Teaching and Learning of Heritage Languages. (Same as Asian CM124 and Near Eastern Languages CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and topics focus on such topics as definition of HLLs and HLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs, 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 CM214. 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 14 units. Individual contract required. Honors content noted on transcript. Letter grading.

190. 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 MA (literature). Designed to prepare in comprehensive knowledge of course through 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 phonology and grammar; readings.


202C. Senior Capstone Thesis in Slavic Languages and Literatures and Literatures. (4) Seminar, three hours. Considered 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.

290. 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 methodology as well as problems of pedagogical grammar. S/U grading.

296. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

297. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (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 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. 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.
**Upper-Division Courses**

101A-101B-101C. Elementary Ukrainian. (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 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 102B, which is recommended preparation for 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 Kotsybayevsky, 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. 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.

**Graduate Degree**

The Social Science interdepartmental Program offers a self-supporting Master of Social Science (MSS) degree.

**Social Science**

**Graduate Course**

SOCIAL SCIENCE

Interdepartmental Program
College of Letters and Science
2500 Public Affairs Building
Box 957174
Los Angeles, CA 90095-7174

Social Science
310-825-3565
Juliet A. Williams, PhD, Chair

Faculty Committee

Faculty Committee
Andrew Apter, PhD (Anthropology, History)
Georgia C. Kernell, PhD (Communication)
Tamar Kremer-Saddik, PhD (Anthropology)
PJ Lamberson, PhD (Communication)
Davide Panagia, PhD (Political Science)
Sarah Abrevaya 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 the social sciences, students develop proficiency with qualitative and quantitative 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.
SociaI Thought

Interdisciplinary Minor
College of Letters and Science
A316 Murphy Hall
Box 951430
Los Angeles, CA 90095-1430

Social Thought

The Social Thought minor provides an opportunity for students to take a series of courses that focus on modern social and intellectual thought from the 17th through the 20th century. The minor builds on lower-division introductory exposure to the modern ideas of Descartes, Hobbes, Locke, Smith, Rousseau, Wollstonecraft, Mill, Marx, Weber, Darwin, Nietzsche, Freud, Du Bois, de Beauvoir, and others and promotes more intense and broad exposure to the great ideas and modern thinkers of the contemporary world. It culminates with enrollment in a two-term senior thesis tutorial related to a theme from previous coursework and closely supervised by a faculty mentor. The senior thesis occurs in conjunction with a weekly research colloquium where students meet with faculty members to discuss their senior thesis work or related work in the minor. The minor is intended to supplement the liberal arts education of undergraduates who, through their major, are interested in finding an area of specialization related to career objectives and who seek broad and systematic training in the major ideas of the modern world.

Scope and Objectives

The Social Thought minor provides an opportunity for students to take a series of courses that focus on modern social and intellectual thought from the 17th through the 20th century. The minor builds on lower-division introductory exposure to the modern ideas of Descartes, Hobbes, Locke, Smith, Rousseau, Wollstonecraft, Mill, Marx, Weber, Darwin, Nietzsche, Freud, Du Bois, de Beauvoir, and others and promotes more intense and broad exposure to the great ideas and modern thinkers of the contemporary world. It culminates with enrollment in a two-term senior thesis tutorial related to a theme from previous coursework and closely supervised by a faculty mentor. The senior thesis occurs in conjunction with a weekly research colloquium where students meet with faculty members to discuss their senior thesis work or related work in the minor. The minor is intended to supplement the liberal arts education of undergraduates who, through their major, are interested in finding an area of specialization related to career objectives and who seek broad and systematic training in the major ideas of the modern world.

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 Lower-Division Courses (16 to 20 units):

Required Research Colloquia and Senior Thesis (2 units): Students must also complete Social Thought 190A and 190B 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 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. 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

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.

190A-190B. Research Colloquium in Social Thought I-II, (2–2) 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.


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.
and organization of community and forces that influence its development and change. P/NP or letter grading.

103. Introduction to Direct Practice with Individuals, Families, and Groups. (4) Lecture, four hours. Requisites: courses 102A, 102B, 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.

M104CG. Gender and Ethnicity. (4) Same as Chicana and Chicano Studies M106B, Gender Studies M104C, and Public Affairs M131J. Lecture, four hours. Exploration of the impact of ethnicity on various aspects of aging and population in aging process. Examination of gender and ethnicity within context of both physical and social aging, in multidisciplinary perspective utilizing faculty from various fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) Same as Gerontology M104D) Lecture, four hours. Examination of theoretical models and concepts of policy process, with application to aging policy. Analysis of decision-making processes that affect aging policy. Description of history of contemporary aging policy. Exploration of current policy issues affecting elderly. P/NP or letter grading.

M104E. Social Aspects of Aging. (4) Same as Gerontology M101E) Lecture, four hours. Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly seminars organized around key aspects of social gerontology. P/NP or letter grading.

105. Social Welfare Policy in Modern America: Historical Perspectives. (4) Lecture; three hours; outside study, nine hours. Historical overview of American social policy dealing with three core societal problems: poverty, sickness, and joblessness. Programs developed by governments to amelorate these problems have typically required government intervention or 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 in comparison of welfare states in other nations. Letter grading.

106. Research Seminar and Field Observation: Social Welfare. (4) Seminar; three hours; discussion, one hour. Discussion of research methodology in social work and field work in settings that engage with focus on development of basic skills in the areas of research. Students select one field of observation experience (module) from a number of field settings. P/NP or letter grading.

107. Field Practice: Social Welfare. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 106. In field practice students are placed in a specific agency where they combine observation and practice with field work in specific agency tasks and roles under instructional supervision of an agency mentor and a UCLA faculty member. P/NP or letter grading.

M108, Biomedical, Social, and Policy Frontiers in Human Aging. (5) Same as Gerontology M108 and Public Affairs M130.) Lecture, four hours. Limited to juniors/seniors. Course of human aging charted in ways that address the implications of knowledge, skills, and expertise in determining effective policies in other countries. P/NP or letter grading.

120. Community Analysis and Community Needs. (4) Lecture, three hours. Limited to juniors/seniors. Current research and theory on determinants of community characteristics and social policy, with focus on development of basic skills in the areas of research. Students select one field of observation experience (module) from a number of field settings. P/NP or letter grading.

M140. Introduction to Study of Aging. (4) Same as Psychology 141C, 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.

M142SL. Intergenerational Communication across Lifespan. (4) (Same as Gerontology M142SL.) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. Corequisite: course 104A. In conversation? How do you talk to your grandparents? Does your family talk well to one another as group? How do you communicate well with those over 30 years older than you? How do you interact with one another, and their interactions have significance throughout their lives. Introduction to psychological, interpersonal, and societal issues related to intergenerational communication across lifespan. 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 concern to parents, communities, and nations. Examination of research related to use and related harm (such as crime and mental health disorders) and effectiveness of interventions to reduce these problems. Through review of science-based programs and policies, evaluation of effectiveness of evidence-based interventions to increase student knowledge, skills, and expertise in determining effective interventions to reduce drug-related harm, using models to date and for future.

164. HIV Prevention in U.S. and Developing World. (4) Lecture, three hours. Limited to juniors/seniors. Examination of various approaches to HIV prevention, drawing on infectious disease paradigms from public health and nursing theories and practices to understand the spread of HIV in different settings. Focus on the role of government in addressing and responding to community needs, is- sues, and concerns regarding HIV and its impact on commu- nities can work together in partnership to enhance quality of community life. 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. How does rich diversity of people of all ages with disabilities are leading active and productive lives in American communities. Many others are struggling to make such lives possible. How do social and commu- nities can work together in partnership to enhance quality of community life. P/NP or letter grading.

181. Nonprofit Sector, State and Civil Society. (4) Lecture, three hours. Limited to juniors/seniors. Examination of the political economy perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and its constituent elements. Examination of social policies and programs, evaluation of effectiveness of legal and policy environments and distinct organiza- tional forms. Comparative perspective between U.S. and other countries or 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 tools, techniques, and strategies, and prepare for pre-departure training.

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 discuss selected USIE tools, techniques, and strategies, and prepare for pre-departure training.

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Physical, emotional, and social areas of human function. May be repeated.

Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics of 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 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 credit with topic change. Letter grading.

191. Variable Topics Research Seminars: Social Welfare. (1–2) Seminar, outside study, nine hours. Examination in depth of particular subfield of social welfare (e.g., child welfare, children and youth, nonprofit, health, mental health). Limits of investigation set by instructor. May be repeated for credit with topic change. Letter grading.

194. Internship Seminars: Social Welfare. (1) Seminar, one hour; outside study, three hours. Corequisite: course 194. Not open to freshmen. Introduction to topics relevant to psychosocial determinants of children’s health and community resources for children and families, with opportunity to gain breadth and depth of knowledge in seminar setting. May be repeated for credit. P/NP grading.

195. Community Internships in Social Welfare. (2) Seminar, two and one half hours; discussion, one hour. Introduction to terminology and scope of systems framework that underlies social work practice interventions. Students learn how to identify and assess small- and large-scale forces that influence problems presented by clients. Letter grading.


210B. Foundations of Social Work Practice II. (4) Lecture, two and one half hours. Corequisite: course 401B. Weighing and carrying out evidence-supported practices based on differential assessment of people and their situations in focus on follow-up intervention approaches: case management, motivational interviewing, crisis intervention, cognitive, task-centered, and solution-focused therapies, as well as interventions appropriate for family functioning, small group processes, and environmental modification (advocacy and community organization). Continued evaluation of outcomes. Letter grading.

210C. Foundations of Social Work Practice III. (4) Lecture, two and one half hours. Corequisite: course 401C. Core concepts of social work practice in organizational, community, and policy settings. Exploration of leadership style and development of personalized group work skills. Role of macro practice in agency-based social work in advancing strategies of organizational and social change. Interface and interaction among policy decisions, community needs, and program development. How societal values influence formulation, implementation, and evaluation of social welfare policies, programs, and services. Analysis of social, economic, and governmental factors. Use of community practice in order to understand policy roots of economic and social injustices. Letter grading.

211A. Human Behavior in Social Environment: Theoretical Perspectives in Social Work and Social Welfare. (4) Lecture, two and one half hours. Concentrated study of current conceptual and social functioning covering various perspectives on roots and significance of racism and other forms of oppression in life (e.g., symbolic, compulsive, behavioral). Contributing to initiation and maintenance of institutional oppression and inequality across social categories such as race, ethnicity, gender, sexuality, religion, ability, and age. Letter grading.

211B. Human Behavior in Social Environment: Theoretical Perspectives in Social Work and Social Welfare II. (4) Lecture, two and one half hours. Concentrated study of current conceptual and social functioning covering various perspectives on roots and significance of racism and other forms of oppression in life (e.g., symbolic, compulsive, behavioral). Contributing to initiation and maintenance of institutional oppression and inequality across social categories such as race, ethnicity, gender, sexuality, religion, ability, and age. Letter grading.

Graduate Courses

202A–202B. Dynamics of Human Behavior. (4–4) Lecture, two and one half hours. Requisites: courses 201A, 201B. Developmental processes in physical, emotional, and social areas of human functioning as those problems relate to role and function of social workers. S/U or letter grading.

203A–203B. Internship Seminars. (4–4) Seminar, two and one half hours. Integrative courses that bring together theory and practice of social work in variety of topic areas relevant to profession. Includes identification of problem areas and regulations-at-risk requiring further examination. S/U or letter grading.


M203X. Special Topics in Social Welfare. (4–4) (Same as Public Policy M291C and Urban Planning M210A.) Seminar, three hours; outside study, nine hours. Advanced seminar on emerging issues across public policy, social welfare, and urban planning. May be repeated for credit. P/NP or letter grading.

M206A. Homelessness: Housing and Social Service Issues. (4–4) (Same as Urban Planning M270.) Lecture, 90 minutes; discussion, 90 minutes; one field trip. Review of diverse, complex issues. Homelessness—what is, what services and housing are available, existing and proposed programs—appropriate architecture, management, and sources of funding. Outside speakers include providers of services to homeless. Letter grading.


210B. Foundations of Social Work Practice II. (4) Lecture, two and one half hours. Corequisite: course 401B. Weighing and carrying out evidence-supported practices based on differential assessment of people and their situations in focus on follow-up intervention approaches: case management, motivational interviewing, crisis intervention, cognitive, task-centered, and solution-focused therapies, as well as interventions appropriate for family functioning, small group processes, and environmental modification (advocacy and community organization). Continued evaluation of outcomes. Letter grading.

210C. Foundations of Social Work Practice III. (4) Lecture, two and one half hours. Corequisite: course 401C. Core concepts of social work practice in organizational, community, and policy settings. Exploration of leadership style and development of personalized group work skills. Role of macro practice in agency-based social work in advancing strategies of organizational and social change. Interface and interaction among policy decisions, community needs, and program development. How societal values influence formulation, implementation, and evaluation of social welfare policies, programs, and services. Analysis of social, economic, and governmental factors. Use of community practice in order to understand policy roots of economic and social injustices. Letter grading.

211A. Human Behavior in Social Environment: Theoretical Perspectives in Social Work and Social Welfare. (4) Lecture, two and one half hours. Intro- duction to terminology and scope of systems framework that underlies social work practice interventions. Students learn how to identify and assess small- and large-scale forces that influence problems presented by clients. Letter grading.

211B. Human Behavior in Social Environment: Theoretical Perspectives in Social Work and Social Welfare II. (4) Lecture, two and one half hours. Concentrated study of current conceptual and social functioning covering various perspectives on roots and significance of racism and other forms of oppression in life (e.g., symbolic, compulsive, behavioral). Contributing to initiation and maintenance of institutional oppression and inequality across social categories such as race, ethnicity, gender, sexuality, religion, ability, and age. Letter grading.

215A. 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 welfare and social science research. Students learn and practice formulating research problems, research questions, and hypotheses and learn how to critically examine 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. Overview of key aspects of social welfare public policy, focusing on major areas of social welfare policy and how they have given rise to today’s social policy structure. Path of social welfare policy development, birth of profession of social work and how it has paralleled the development of issues from early colonial settlements to present day. Specific events and important individuals that have influenced public policy affecting vulnerable populations, such as racial and ethnic minorities, women, children, the poor, and other diverse populations. Examination of role of social research in informing social welfare policy. Letter grading.

214B. 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 developments. 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.

223. Seminar: Social Work Profession. (2) Seminar, two hours. Nature and role of social work in contemporary society; relationships with other professions; future trends and roles of 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. Exploration of one problem for study—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 problems have been conceptualized and studied 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 particular problems, 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 welfare research problem, moving from understanding of evolution and context of general problem to more detailed and intensive review of the literature on specific researchable question to deepen student understanding of existing knowledge on topic and begin to identify one or more critical gaps in knowledge to explore. Development and understanding of art methods of summarizing research literatures, identifying seminal studies, and interpreting contradictory findings. Regular meetings to discuss ongoing work and to engage students to review their work with their faculty advisers and/or other mentors with expertise in their problem areas. Letter grading.
231A. Direct Social Work Practice with Couples and Families. (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 given to various approaches and techniques affecting functioning of individuals and groups and to diagnostic knowledge and competence required in rehabilitation and prevention. 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 given to various approaches and techniques affecting functioning of individuals and groups and to diagnostic knowledge and competence required in rehabilitation and prevention. S/U or letter grading.

231C. 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 given to various approaches and techniques affecting functioning of individuals and groups and to diagnostic knowledge and competence required in rehabilitation and prevention. S/U or letter grading.

231D. 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 theories, concepts, and principles underlying social casework practice. Specific attention given to various approaches and techniques 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: Child Welfare. (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 given to various approaches and techniques 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 theories, concepts, and principles underlying social casework practice. Specific attention given to various approaches and techniques affecting functioning of individuals and groups and to diagnostic knowledge and competence required in rehabilitation and prevention. S/U or letter grading.

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 roles of social workers in helping family members recover from experiences with substance abuse, domestic violence, sexual difficulties, and more. S/U or letter grading.

231H. 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. Focus on various evidence-based approaches to providing services to pervasive and persistent mentally ill. Exploration of strengths-based reframing of psychiatric diagnosis to incorporate 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.

231I. Advanced Social Welfare Practice: Health. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of various roles that social workers occupy in health settings and strategies for working with healthcare teams. From caseload management of a 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.

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 roles of social workers in helping family members recover from experiences with substance abuse, domestic violence, sexual difficulties, and more. 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. Focus on various evidence-based approaches to providing services to pervasive and persistent mentally ill. Exploration of strengths-based reframing of psychiatric diagnosis to incorporate 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.

231L. 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. Focus on various evidence-based approaches to providing services to pervasive and persistent mentally ill. Exploration of strengths-based reframing of psychiatric diagnosis to incorporate 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. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of various roles that social workers occupy in health settings and strategies for working with healthcare teams. From caseload management of a 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. Corequisite: required social work practicum. Advanced-level, critical analysis of roles of social workers in helping family members recover from experiences with substance abuse, domestic violence, sexual difficulties, and more. S/U or letter grading.

232. Prevention and Promotion in Health and Mental Health. (4) Lecture, two and one half hours. Corequisite: required social work practicum. Process of grant writing, with emphasis on development of proposals. Explanation of theories and techniques to develop framework for social work practice. Clinical case management explored as intervention in its own right in addition to its use as mechanism for linking children and families to other social systems, professions, and forms of intervention. Interpretation of current public child welfare events, trends, terms, and laws and their relationship to direct practice issues. S/U or letter grading.

232A. 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. Focus on various evidence-based approaches to providing services to pervasive and persistent mentally ill. Exploration of strengths-based reframing of psychiatric diagnosis to incorporate 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.

232B. 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. Focus on various evidence-based approaches to providing services to pervasive and persistent mentally ill. Exploration of strengths-based reframing of psychiatric diagnosis to incorporate 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.

232C. Prevention and Promotion in Health and Mental Health. (4) Lecture, two and one half hours. Corequisite: required social work practicum. Process of grant writing, with emphasis on development of proposals. Explanation of theories and techniques to develop framework for social work practice. Clinical case management explored as intervention in its own right in addition to its use as mechanism for linking children and families to other social systems, professions, and forms of intervention. Interpretation of current public child welfare events, trends, terms, and laws and their relationship to direct practice issues. S/U or letter grading.

232D. Prevention and Promotion in Health and Mental Health. (4) Lecture, two and one half hours. Corequisite: required social work practicum. Process of grant writing, with emphasis on development of proposals. Explanation of theories and techniques to develop framework for social work practice. Clinical case management explored as intervention in its own right in addition to its use as mechanism for linking children and families to other social systems, professions, and forms of intervention. Interpretation of current public child welfare events, trends, terms, and laws and their relationship to direct practice issues. S/U or letter grading.

241G. Advanced Social Welfare Practice: Community Planning and Administration. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Designed to familiarize students with use of geographic data in community practice. Development and use of GIS to inform community practice. S/U or letter grading.

241H. Advanced Social Welfare Practice: Institutional Governance and Human Service Management. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Conceptual framework and analytic tools provided to understand organizational features of human services. Human service organizations work on practical processes of problem solving and substantive social welfare problems at community level. This form of community practice fills niche between professional and knowledge and skill set possessed by agency and program administrators on one hand and by policy analysts and policymakers on other hand.

241I. Advanced Social Welfare Practice: Community Planning and Administration. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Designed to familiarize students with use of geographic data in community practice. Development and use of GIS to inform community practice. S/U or letter grading.

241J. Advanced Social Welfare Practice: Community Planning and Administration. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Conceptual framework and analytic tools provided to understand organizational features of human services. Human service organizations work on practical processes of problem solving and substantive social welfare problems at community level. This form of community practice fills niche between professional and knowledge and skill set possessed by agency and program administrators on one hand and by policy analysts and policymakers on other hand.

241K. Advanced Social Welfare Practice: Community Planning and Administration. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Conceptual framework and analytic tools provided to understand organizational features of human services. Human service organizations work on practical processes of problem solving and substantive social welfare problems at community level. This form of community practice fills niche between professional and knowledge and skill set possessed by agency and program administrators on one hand and by policy analysts and policymakers on other hand.
learning necessary skills to conduct functional grant proposals. Application of problem-solving knowledge to development of human service grants. Various steps in writing grant proposals and opportunity to design/prep grant proposals. S/U or letter grading.

24J. Advanced Social Welfare Practice: Community Practice and Development of Conceptual Frameworks; outside study, nine hours. Corequisite: required social work practicum. Designed to deepen student knowledge of community practice methods and empirical base that underpins community practice. Focus on community social work. Theory, practice, and research methods related to major community practice approaches in context of evolving community theories and philosophies of social justice, history of ideas, and key ethical frameworks underpinning social work. Connects theory and practice through focus on poverty interventions, welfare policy, mass incarceration, community organizing, homelessness, and displacement. Focus on U.S. with emphasis on global and comparative approach to social welfare. Letter grading.


258. Critical Problems in Social Welfare. (2) Discussion, two hours. Designed for PhD students. Current problems in field of social welfare. Specific topics vary 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, three hours. Limited to graduate students. Designed to provide in-depth understanding of particular topics in area of applied statistics/measurements. Students engage in conducting research in broad array of fields that comprise social sciences. Letter grading.

260A. Research Capstone I: Project Development. (4) Lecture, two and one half hours. Formulation of research problems, questions, and hypotheses that guide critical review of literature and illuminate understanding of interest area. Working in groups of three to four, development of proposal for research capstone project that includes outlining plans for collecting data or using existing data to address applied problem. Culminates in full-class format of project and articulated work plan for team members. Letter grading.

260B. Research Capstone II: Data Gathering, Analyses, and Interpretation. (2) Research group meeting, two hours. Supports students in implementation of study, including data gathering and preliminary analysis. Class meetings may occur in small or large groups to assist with trouble shooting or to teach specialized research skills. Culminates in presentation of findings and initial results. In Progress grading (credit to be given only on completion of course 260C).

260C. Research Capstone III: Data Gathering, Analyses, and Interpretation. (2) Research group meeting, two hours. Analysis and interpretation of data and finalization of presentation formats of results. Grounding of interpretation of results in existing literature and discussion of findings for real-world applications. Culminates in final paper that includes abstract, literature and theory review, methods, results, discussion, and implications for social welfare. Letter grading.


286A. Survey of Research Methods. (4) Seminar, three hours. Basic concepts underlying research methods. Content includes experimental and non-experimental approaches to research problem formulation; research design, including experimental, comparative, and survey; sampling; statistical methods; methods of observation and techniques of data analysis. Letter grading.

286B. Advanced Research Methods. (4) Seminar, three hours. Advanced concepts underlying research methods. Continuing study of theoretical and conceptual issues as part of research problem formulation; re- search design, including experimental, comparative, and survey; sampling; statistical methods; methods of observation and techniques of data analysis. Letter grading.

286C. Research Internship. (4) Fieldwork, four hours. Supervised study and training through participation in on-going research project or one initiated by student and carried out under faculty supervision, enabling students to apply research skills developed in prior courses. May be repeated for credit. S/U grading.

280A-280B-280C. Seminars: Social Work. (4–4–4) Seminar, three hours; outside study, nine hours. Series of seminars dealing with trends in social work and social welfare, with focus on current social problems affecting individuals, groups, and communities and new avenues of intervention. Open to graduate students. S/U or letter grading.

290D. Criminal Justice and Mass Incarceration. (4) Lecture two and one half hours. Exploration of relationship between social welfare and criminal justice systems, focusing on gang interventions, re- form, and reentry. Examination of life trajectories, development of and response to gangs in U.S. and globally. Examination of origin and development of major
criminal justice policy surrounding gangs and relationship to punishment, incarceration, death penalty, and development and endurance of prison gangs. Analysis of criminal justice system history, future directions, and capacity of social welfare programs to address needs of marginalized populations. Letter grading.

290E. Lesbian, Gay, Bisexual, and Transgender Health, Law, and Public Policy. (4) Lecture two and one half hours. Examination of LGBT-identified communities throughout U.S. Identification of health disparities that lead to the development of LGBT-identified communities, including disparities among most marginalized individuals and those living at intersection of multiple identities. Use of law and policy by situating goal of achieving health equity for LGBT communities in current political climate. Offers opportunity to evaluate how better health outcomes for LGBT people may be helped by bringing relevant social science research to bear in shaping law and policy matters moving forward. Letter grading.

290F. Firearm Violence Prevention Policy. (4) Lecture, two and one half hours. Introduction to upstream way of thinking about firearm-related violence. Examination of range of topics connected to contemporary debates about firearm violence in U.S. using collection of philosophical, social, and epidemiological literature. Ways of thinking about socially and scientifically about causes and consequences of firearm violence in different contexts, from mass shootings to firearm suicides. Major theories advanced to explain firearm violence, including scientific study of firearm violence, and important research findings about correlates, patterns, processes, and trends related to firearm violence. S/U or letter grading.

290G. Psychotropic Drugs and Medications: Harm Reduction Policies. (4) Lecture, two and one half hours. Philosophy and policy applications of harm reduction approaches to legal (including prescription) and illegal psychoactive drug use in U.S. and elsewhere. Visions and obstacles for future management of psychoactive drugs such as opioids, stimulants, psychedelics, and benzodiazepines according to harm reduction principles. Implications for social work practice across lifespan. Letter grading.

290H. Children with Special Healthcare Needs: Systems Perspective. (4) Same as Community Health Sciences M420 and Health Policy M420.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of 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.

290J. Child Welfare Policy. (4) Same as Public Policy M212.) 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 an infrastructure to support needs of children and families. S/U or letter grading.

290K. Mental Health Policy. (4) Same as Public Policy M213.) 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 provided. S/U or letter grading.

290L. Poverty, Poor, and Welfare Reform. (4) Same as Public Policy M214 and Urban Planning M246.) Lecture, three hours. Major policy and research issues concerning poverty and social welfare policy directed toward MA or MPS students. S/U or letter grading.

290M. Health Policy. (4) Same as Public Policy M215.) Lecture, three hours. Introduction to contemporary health care issues and scientifically about providing historical perspective on emergence of these issues. Examination of major public programs and their relationship to issues of access and cost. S/U or letter grading.

290N. Public Policy for Children and Youth. (4) (Same as Public Policy M216.) 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.

290P. Aging Policy, Elderly and Families. (4) Same as Public Policy M261.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of theoretical models and concepts in aging policy. Application of decision-making processes that affect social policies. Description of historical development of contemporary policy. Exploration of current proposals and implications for future policy. Letter grading.


290R. Law and Poor. (4) Same as Public Policy M295 and Urban Planning M248.) Lecture, three hours. Designed for graduate students. Study of major issues concerning rights and access to justice, 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.

290S. Politics, Power, and Philanthropy. (4) Same as Public Policy M227 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 organizational forms. Comparisons between U.S. and other countries. S/U or letter grading.

290T. Juvenile Justice Policy. (4) Lecture, two and one half hours; outside study, nine hours. Designed for graduate students. Exploration of evolution of juvenile justice system in U.S. and issues that have shaped current-day practice. Role of social workers in system to be theme throughout course. Letter grading.

290U. Community Development and Housing Policies: Roles of State, Civil Society, and Nonprofits. (4) Same as Public Policy M243 and Urban Planning M275.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of role of U.S. governmental agencies and civil society groups in providing services to communities. Is housing or economic development? Should interventions be directed toward inner city housing markets or through neighborhood revitalization strategies? How can solutions be learned from experiences of other countries? Letter grading.

290W. International Social Welfare. (4) Lecture, three hours; outside study, nine hours. Intended for graduate students interested in pursuing analysis of key international social welfare issues. Topics approached from perspective of globalization of social, economic, and political activities. Problems of global inequality, social security, and inequity, and issues of racial, ethnic, and cultural diversity, with emphasis on multifaceted contributions of social work, social services, and international social development within rich and poor countries. Acquisition of knowledge of international social welfare activities, as well as analytical skills to address and debate complex international issues. S/U or letter grading.

290X. Comparative Perspective on States, Markets, and Civil Society. (4) Same as Public Policy M247B and Urban Planning M210B.) Lecture, two and one half hours. Governance is about solving and managing societal problems in the context of change, poverty, migration, security, mobility, pollution, or trade relations. Sometimes problems and their proposed solutions are handled in consensual ways, yet there are also instances where problems and solutions are highly contested. Contemporary governance is complex set of laws, rules, and regulations involving rights and responsibilities of three institutional complexes of modern societies (state, market, and civil society), interests that guide them, and legitimacy and resources they command. Actors often reach across systemic, jurisdictional, and national boundaries; their relationships can be cooperative, neutral, or fraught with conflict, and governance outcomes can vary significantly. These dynamics involve fundamental challenges and, consequently, require significant governance readiness. 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.
Faculty Roster

Professors
Michael E. Alfaro, PhD
Soraya de Chadarevian, PhD
Wayne W. Grody, MD, PhD
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. Sinseheimer, PhD
Stefan Timmermans, PhD

Professors Emeriti
Christina G.S. Palmer, PhD,
Rachel C. Lee, PhD
Russell Korobkin, JD
Martie G. Haselton, PhD
Wayne W. Grody, MD, PhD
Soraya de Chadarevian, PhD

Associate Professors
Patrick Allard, PhD
Allison B. Carruth, 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
Michaelle A. Rensel, PhD

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: genes and gene expression, human evolutionary biology, and society, diversity, and identity. The majors provide an important integrative space where bridging the institutional divide between the life sciences and human sciences (humanities and social sciences) is necessary.

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 and to employ interdisciplinary skills to help solve them

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. Applicants 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 website.

Premajor

Incoming freshmen may be admitted as premajors on acceptance to UCLA. All other students must first complete Society and Genetics 5, M71A, or M72A, and then contact the undergraduate counselor in 3360 Life Sciences to request premajor standing.

Required Core:

- One course from Society and Genetics 5, M71A, or M72A.

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.

Applications submitted after the spring quarter beginning of spring quarter of their sophomore year. 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 website.

Premajor

Incoming freshmen may be admitted as premajors on acceptance to UCLA. All other students must first complete Society and Genetics 5, M71A, or M72A, and then contact the undergraduate counselor in 3360 Life Sciences to request premajor standing.

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, Life Sciences 1 and 2, or 7A, 7B, and 7C, Statistics 10 or 13, and two social theory courses from American Indian Studies M10, Anthropology 3, Asian American Studies 20, Chicana and Chicano Studies 10A, 10B, Clusters M1A, through 80CW, Gender Studies 10, Geography 3, History 3C, Honors Collegium 70A, Molecular, Cell, and Developmental Biology 40, 50, 60, Philosophy 4, 6, 8, 22 or 22W, Public Policy 10A, Society and Genetics 85, sociology I, M5.

Each course must be taken for a letter grade, and students must complete all premajor courses with a cumulative minimum grade-point average of 2.9.

Transfer Students

Transfer applicants to the Human Biology and Society BA major with 90 or more units must complete the following preparatory courses prior to admission to UCLA: one year of general biology (the equivalent of Life Sciences 1 and 2, or 7A, 7B, and 7C), introductory chemistry, one statistics course, one anthropology human evolution course, and two introductory social sciences or history courses. 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: Society and Genetics 101, 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:

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
- 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 societal concerns in planning, conducting, and assessing research.
- 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 website.

Preparation for the Major

Required Core: One course from Society and Genetics 5, M71A, or M72A, and then contact the undergraduate counselor in 3360 Life Sciences to request premajor standing.


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 124F, 124G, 124Q, 128F, 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 CM165, Human Genetics CM124, C144, Microbiology, Immunology, and Molecular Genetics C112, 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 C144

Human Biology and Society BS
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 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.

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, 197, 199, Sociology 143, M160A, M160B, Social Welfare 162, Society and Genetics 120, 121, 130, 131, M133, M140, M144, 160, 161, 162, 163, 164, 165, 170, 180, 188, 195CE, 197, 199, Sociology 138, 143, M144, 154, 156, 170. See below for additional course options in the subfocus areas of cell development, microbiology and immunology, molecular biology and genomics, physiology, 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, 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 103A, 106, 107, 158, or 168

Molecular Biology and Genomics: Molecular, Cell, and Developmental Biology 144, 172, and one course from CM156, Human Genetics CM124, C144, Microbiology, Immunology, and Molecular Genetics C122, 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 C144


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, 191S, and at least four additional upper-division elective courses (minimum 16 units) from the approved list.

The approved list of upper-division elective courses includes Anthropology 111, 124P, 124S, 126Q, 128P, M148, M150, Ecology and Evolutionary Biology 120, 121, 180A, 180B, Gender Studies M114, 134, M162,
Society and Genetics

Lower-Division Courses

5. Integrative Approaches to Human Biology and Society, (5) Lecture, three hours; discussion, one hour. Introduction to concept of problem-based approaches to study of biology and society and areas of concentration, such as bioethics and public science policy, evolutionary biology, which required behavior, historical, and social studies of life sciences, medical genetics 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-M71CW. Biotechnology and Society. (6–6–6) (Same as Clusters M71A-M71B-M71CW.) Course M71A is enforced requisite to M71B, which is enforced requisite to M71CW. Limited to first-year freshmen. Letter grading, M71A-M71B, Lecture, three hours; discussion, two hours. Exploration of methods, applications, and implications of biotechnology and ethics, social, and political implications as well as biological underpinnings. M71CW. 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-M72CW. Sex from Biology to Gendered Society, (6–6–6) (Same as Communication M72A-M72B-M72CW, Clusters M72A-M72B-M72CW, and Sociology M72A-M72B-M72CW) Course M72A is enforced requisite to M72B, which is 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. Enforced requisite: course M72B. Topics may include politics of reproduction, sexuality, sexual identity, social construction of gender, biotechnological and biocultural techniques. Satisfies Writing II requirement.

85. Critical Study of Health, Sickness, and Healing in Global Perspective, (4) Lecture, three hours. 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 introduce key dimensions of diversity (class, gender, urban/rural development) that influence how populations vary in encounter, experience, understand, and cope with sickness. Special relationships between Western medicine and traditional and alternative approaches to healing. Letter grading.

99. Honors Seminars, (1) Seminar, three hours. Limited to 20 students. Special topics. Supervised student-led inter-discipline lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. 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. Consult Undergraduate Research Center. May be repeated. P/NP grading.

99 Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week. Credit by petition for inter-discipline 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. Genetic Concepts for Human Sciences, (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for Life Sciences 4. Focused treatment of selected complex genetic concepts from molecular biology, population and quantitative genetics, and evolutionary biology, with emphasis on gene-environment interaction at various levels and culminating in exploration of notion of co-evolution of genetics and society. Basic science concepts presented in context and research topics. Current research on cancer, immune system and development, and how this research is performed and adds to knowledge. Letter grading.

102. Societal and Medical Issues in Human Genetics, (5) Formerly 142) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts concepts of ourselves as individuals and of our place in biological universe. Concepts of race/ethnicity and gender, ability of DNA-based forensics to identify specific individuals, ownership and commodification of genes, issues of privacy and confidentiality, issues of genetic discrimination, issues of predictive genetic testing. Discussion of human cloning for reproductive and therapeutic purposes. Exposure to modern research cases. Discussion of role of whole genome sequencing in clinical setting. Human Genome Project influence on medicine and on our concepts of self and identity. Letter grading.

105A. Ways of Knowing in Life and Human Sciences, (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 5 or M71A or M72A. Course 105A is not requisite to 105B. Introduction to study of epistemology: how do we come to recognize different ways of knowing what we know. In life and human sciences, instruments and methods are used to study, measure, and experiment. Exploration of how they are used to make learning, life of scientific knowledge: how to help students evaluate explanatory models, standards of proof, and qualitative versus quantitative studies. Explorations may include DNA sequencing, tissue culture, biostatistics, photography, and cinema, charts, trees, and databases. DNA sequencing is used to study gene functions, evolutionary patterns, and disease and plays role in legal context to reconstruct aspects of human history or to trace identity of people. Databases play role in life sciences in administrative, commercial, and legal contexts. Photo- tomics 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. Requisites: course 101 or Anthropology 1, or Life Sciences 4 and 23L, or TC (each may be taken concurrently). Course 105A is not requisite to 105B. Exploration of issues of human biology, inherently biological and social. Topics vary and may include race, obesity and nutrition, autism, disability or ability, gender, intelligence, or sexuality. Topics contain set of intertwined problems so complex, so difficult to define, and so wrapped up in concepts of what it is to be human, that it has spawned research from variety of perspectives in biological and human sciences. Students critically engage various intellectual perspectives—some competent, some complementary—that intersect on one particular topic. Examination of how researchers from social/historical and biological sciences contextualize the intellectual problem, methods they bring to bear on the findings they have produced. Letter grading.

108. Human Biology, Genetics, and Society, (5) Lecture, three hours; laboratory, two hours. Limited to senior Human Biology, Biology, Lectures, readings, discussions, and development of collaborative culminating project. Group-based research projects in mapping and staging contemporary controversies at intersections of genetics, society, reading of large amounts of material to make sense of both scientific concepts and social and political issues, with original research project and presentation required. Letter grading.

120. Genetics and Human History, (4) Lecture, three hours. Requisite: course 101 or Life Sciences 107. Advancements in genome research have rapidly transformed traditional archaeological and historical investigations of human past. How do recent research, focus on how genomic analysis has shed new light on old debates such as migration of Homo sapiens out of Africa, human interbreeding with Near Easterners, first migration to North America, ethnic expansions throughout Europe, and genetic legacy of historical figures such as Thomas Jefferson and Genghis Khan. Discussion of practical and theoretical issues surrounding genomics in the history of humans, including challenges of using ancient and modern DNA, population genetic theory, and ethical implications of genetic research for understanding ethnic history. Letter grading.

121. Race, Science, and Citizenship, (4) Seminar, three hours. Early development of scientific method and systematic exclusion of those in subordinate social groups from scientific practice. Interrogation of binaries that prop up scientific knowledge construction, and consideration of how norms and values embedded in Western science compare with indigenous or local knowledge systems. How medical research is motivated by competing assumptions of racial hierarchy and equality. Examination of governments’ use of science to classify racially inferior and contaminate foreigners as threats to social order. Exploration of how people use knowledge about their embodied experiences to demand rights and accept responsibility for their own health and vitality, either in opposition to or in alignment with scientific experts. How contemporary developments in science and technology bring to light some central concerns of social and political theory. Letter grading.

130. Biotechnology and Society, (4) Lecture, three hours. Topics include an overview of living matter from humans, animals, and plants as scientific and social undertaking. How biotechnology came into existence. Questions, controversies, and changes that come with ability to make living beings, animals, and plants ideal in American biologic. Biological modernism, ideas of immediacy and technical suppression of death, molecularization of life, genetic engineering, food biotechnology, and control of reproduction. Practice and
185. 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.

188. Special Courses in Society and Genetics. (4) Seminar, 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.

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 or participation in USIE. 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 USE 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 supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with a topic change. Limited to 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 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 credit with maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Society and Genetics. (5) Seminar, one hour. Limited to undergraduate students. Discussion of topics related to guest speaker series. May be repeated for credit. P/NP grading.

195CE. Community or Corporate Internships in Society and Genetics. (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 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 supervising faculty member required. Letter grading.


197. Individual Studies in Society and Genetics. (2 to 4) Tutorial, to be arranged. Enforced requisite: course 196. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter (paper or other project) required. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Society and Genetics. (2 to 4) Tutorial, six to 12 hours. Preparation of written proposal outlining study or research to be undertaken due to undergraduate adviser for department approval. Studies to involve laboratory research, not primarily literature surveys or library research. Proposal to be developed in consultation with instructor. Limited to juniors/seniors. Department majors may enroll with sponsorship from department faculty members or preapproved outside faculty members. Other juniors/seniors may enroll only with department faculty sponsors. Supervised individual research under guidance of faculty mentor. At end of term culminating paper describing progress of project and signed by student and instructor must be presented to department. May be repeated for credit. Individual contract required. Letter grading.

Graduate Course

375. Teaching Apprenticeship 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.
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.

### 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 premajor once they complete either Sociology 1 or 20 with a grade of C or better.

**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 106A, 106B, 110, 111, 112, 113, 124A, 191H, or Statistics 112; (3) one course from each of the following core areas: (a) interactions—Sociology 111, 124A, CM125, 126, 130, 132, 133, 134, or 152, (b) institutions and social processes—course 116, 121, 143, 151, 158, 172, 173, 174, M175, M176, or 181B, (c) power and inequality—course M115, 122, 123, 147A, M155, 156, 157, M161, M162, M164, M165, 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 bache-
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 Master of Arts (MA), Candidate in Philosophy (Cphi), 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, with focus on origins and development of black communities, competing theories and research findings, defining characteristics and contemporary issues. Letter grading.

10. 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.

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. Letter grading.

20. Introduction to Sociological Research Methods. (5) Lecture, three hours; discussion, one hour. Introduction to methods used in contemporary sociological research, with focus on issues of research design, data collection, and analysis of data. Fieldwork may be required. Letter grading.

40. 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. Racism toward African Americans and harms it has inflicted on African American community, as well as on nation as whole. Examination of psychology and sociocultural racism: research in video clips, social scientific texts, especially recent American humanists, 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 analysis of 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-M72C. Sex from Biology to Gendered Society. (6-6-6) (Same as Communication M72A-M72B-M72C, and Sociology and Genetics M72A-M72B-M72C) Course 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, one hour. Examination of many ways in which sex and sexual identity shape and are shaped by biological and social forces, approached from complementary perspectives in anthropology, sociology, medicine, and social psychology. Specific topics include biological origins of sex differences, intersex, gender identity, gender inequality, homosexuality, sex differences, sex/gender, and law, and politics of sexual research. M72C. Special Topics. Seminar, three hours. Enforced requisite: course M72B. Topics may include politics of reproduction, sexuality, sexual identity, social construction of gender, and reproductive technologies. Satisfies Writing II requirement.

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 supplementary readings, papers, 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.

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 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

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 10 hours. Research practices in which students write field notes on their experiences in and observations of intensive internship field placement. Readings focus on fieldwork roles and relations, observing and describing, writing field notes, field interviewing, ethical issues, and project follow-up. 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. Course examines a variety of field methods and unstructured interviews from field student placement. Use of techniques of qualitative data analysis, including qualitative coding, analytic memoing, and grounded theory, to analyze and interpret student data. May be repeated for credit. P/NP or letter grading.

110. Sociohistorical Methods. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. General problems of scientific abstraction, generalization, inference, and verification and particular problems of historical specification, comparison, and counterfactual reasoning. Application of testing and replicated explanation of historical event. P/NP or letter grading.

111. Social Networks. (4) Lecture, three hours; laboratory, one hour. Analysis of how social networks combine social structure, relationship, and resources, and their unexpected effects. Topics include job search, firm efficiency, and social movements. Visualization of social networks, 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 basic sociometry, matrix algebra, and differential and integral calculus), Statistics 10. Mathematical treatment of several sociological phenomena, such as occupational 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 mathematical treatment). Letter grading.

113. Statistical and Computer Methods for Social Research. (4) Lecture, three hours; laboratory, one hour. Requisite: Statistics 10, Continuation of Statistics 10, covering more advanced statistical techniques such as multiple regression, analysis of variance, or factor analysis. Content varies. Students learn how to use computer and write papers analyzing prepared data sets. P/NP or letter grading.

115. Environmental Sociology. (4) (Same as Environment M133 and Sociology M133) Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interrelations between social factors (such as class, race, gender, and religion) and political factors (such as pollution, waste disposal, sustainability, and global warming). P/NP or letter grading.


117. Family Demography. (4) Lecture, three hours; discussion, one hour. Examination of demographic behaviors, such as marriage, divorce, and childbearing, associated with family and household organization. Sociological approach to understanding causes and consequences of trends and differentials in family formation and dissolution. P/NP or letter grading.

118. Simulating Society: Exploring Artificial Communities. (9) (Same as Honors Collegium M148.) Seminar, three hours; computer laboratory, one hour. Examination of social behavior through computer simulations of behavior 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 primate cousins, with special focus on baboons, chimpanzees, and gorillas. Examination of primate sociology, sexual competition, demography and kinship, politics, communication, and interactions within and between groups. Implications for our lives as human primates. P/NP or letter grading.

120. Disability Rights Law. (4) (Same as Disability Studies M149.) Lecture, four hours. Examination of disability-related issues impacting all of all ages across the spectrum 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 contemporary work in social scientific study of religion. Analysis of definition of religion, role of religion in modern life, and role of categories like Islam in contemporary society. Focus on complicated question of what it means to say someone or 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 religion. P/NP or letter grading.

122. Sociology of Violence. (4) Lecture, three hours; discussion, one hour. Exploration of macro-, meso-, and micro-level violence, why states and civil society participate in violence, and physical, structural, and symbolic violence. Discussion of how various social categories such as race, ethnicity, gender, and class are involved in and structural, and symbolic violence. Dissection of violence and examination of cases of interstate 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 fundamental debates in sociology about structure (degree to which individual's actions are constrained by social forces) and agency (degree to which he or she can control his own course of action). Major theories (Marxist, Weberian, demographic, and strategic action) of social change take different views of structure and agency. Consideration of these theories against the 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 interaction, such as turn-taking organization, organization of repair, and social sequence structure of limited expansions. M124B. Requisite: course M124A. Consideration of some more expanded sequence structures, story structures, topical sequences, and overall structural organization of single conversations.

CM125. Talk and Social Institutions. (4) (Same as Communication M125.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Practices of communication and social interaction in major institutions of contemporary society. Setting varies but may include emergency services, police and courts, medicine, news interviews, and political oratory. Open to matriculated students scheduled with course C258. P/NP or letter grading.

126. Study of Norms. (4) Lecture, three hours; discussion, 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 programmatic problems 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 forms of knowledge. Study of ways in which bodies of knowledge are produced and transformed, and in everyday, organizational, and extraordinary contexts. P/NP or letter grading.

128. Sociology of Emotions. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed for juniors/seniors. Sociological theories and explanations of social conditions shaping and producing emotional experiences; effects of individual expression of emotions on social structure; historical, cultural, biological, and psychological bases of emotions; self and emotions; social construction of emotions. P/NP or letter grading.

129. Sociology of Time. (4) Lecture, three hours; discussion, one hour. Examination of social processes shaping experience, cognition, and enactment 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 career paths for Sociology majors, including such fields as business, nonprofit sector, government, healthcare, entertainment, and other areas. Development of career-relevant materials and skills. Letter grading.

132. Social Psychology: Sociological Approaches. (4) Lecture, three hours; discussion, one hour. Survey of contributions of social psychology and research in social psychology, including theories of social control; conformity and deviance; 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 relation to social unrest and their role in developing and changing social organization. P/NP or letter grading.

134. Culture and Personality. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed for seniors/juniors. Theories of relation of variances in personality to culture and group life, in primitive and modern societies, and evidence of social role on behavior. 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 extraneous psychoneurological 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 class, race, educational level, gender, age, sexual orientation, and class. Analysis of strength of this sociological argument and evaluation of explanatory potential of different theories to make sense of violent death, paying particular attention to forensic and medicolegal system to determine suicide and solve homicides. Review of historic and contemporary studies to examine how research and conceptualizations on suicide and homicide have changed, as well as social responses to these phenomena. 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 most continuous movement of people to the flow of the contemporary world. In recent decades, prompted by swift economic transformations, rural and urban Mexicans from every corner of Mexico have joined this migratory flow, setting well southwestern region and into far-reaching areas of U.S. interior. Migration is binding U.S. and Mexican stronger than ever, putting the complex and multilayered phenomena at top of bilateral agenda. Examination of sociological dynamics of international migration and labor as they apply to Mexico-U.S. context, including demographic, political, and economic dynamics of migration, economic and social determinants of social mobility, strains of migration and accessibility of education in Mexico and the U.S., with emphasis on long-term cultural consequences of immigration. P/NP or letter grading.

148. Sociology of Mental Illness. (4) (Same as Disability Studies M148.) Lecture, three hours; discussion, one hour. Examination of mental illness as a social construction of the person, and as a social problem that affects the ways in which communities organize their lives. P/NP or letter grading.

149A. Youth, Trouble, and Juvenile Justice. (4) Lecture, three hours; discussion, one hour. Examination of processes through which people become involved in juvenile justice system. Analysis of this system as people-processing and people-changing institution as context for considering critical 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 of aging, experience, and responses to aging in 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 Europeans, Asians, and Hispanics to the U.S. since the mid-19th century. Overview of immigrant experience on ethnic-racial groups that migrated voluntarily to this country, with emphasis on immediate postimmigration 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 Africans, Europeans, Mexicans, and Asians in the U.S., with emphasis on long-term cultural consequences of immigration. P/NP or letter grading.
M 153. Chinese Immigration. (4) (Same as Asian American Studies M 130C) Lecture, three hours; discussion, one hour. Survey of sociological studies of Chinese immigration, with focus on international context, text, organization, and institutions of Chinese America and its interactions with social environment. 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 life of nations other than the U.S. P/NP or letter grading.

M 155. Latinos in U.S. (4) (Same as Chicana and Chicano Studies M 155A) Lecture, three hours; discussion, one hour. Social construction of Latin communities and the nation generally, with emphasis on treatment of Latino 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 interplay between sociocultural and social structures and meaning systems. Survey of sociological studies of peer groups, family, education, and work issues. 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, women and ethnic minority participation, legal and illegal forms, public and private auspices. P/NP or letter grading.

173. Economy and Society. (4) Lecture, three hours; discussion, one hour. Sociology of economic life, with emphasis on principal economic institutions of the U.S. P/NP or letter grading.


M 162. Sociology of Gender. (5) (Same as Gender Studies M 162.) Lecture, three hours; discussion, one hour. Enforced requisite: course 1 or Gender Studies 10. Examination of processes by which gender is socially constructed. Latin American men and women: biological roles and gender. Special attention to differences 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.

M 163. Gender and Work. (4) (Same as Gender Studies M 163.) Lecture, three hours; discussion, one hour. 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.

M 164. Politics of Reproduction. (4) (Same as Gender Studies M 164.) Lecture, three hours; discussion, one hour. Title refers to intersection between politics and life cycle. Topics include social construction of gender and reproduction, reproductive issues, politicalization of mothers, motherhood, and mothering, surrogacy, and new reproductive technologies. Letter grading.

M 165. Sociology of Race and Labor. (4) (Same as Asian American Studies M 165 and Labor and Workplace Studies M 165B) 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 from jobs and unions, 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.

166. 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.

167. Medical Sociology. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Provides majors in Sociology and other social sciences, as well as students preparing for health sciences careers, with understanding of health-seeking behavior, inter- and intra-personal and organizational relations that are involved in receipt and delivery of health services. P/NP or letter grading.

168. Organizations and Society. (4) Lecture, three hours; discussion, one hour. Specific topics may include law and preindustrial and industrialized societies, legalization of crime, conflict, and social control, social movements toward equal justice, roles of lawyers and judges, social impact of court decisions. P/NP or letter grading.

170. Law and Society. (4) Lecture, three hours; discussion, one hour. Specific topics may include law and preindustrial and industrialized societies, legalization of crime, conflict, and social control, social movements toward equal justice, roles of lawyers and judges, social impact of court decisions. P/NP or letter grading.


185. American Society. (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. Social structure and social conflict in Latin America, with special attention to recent mass structuration crises and dilemmas of economic and political development. Country and specific focus varies each term. 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 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.

188B. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188A. Enforced corequisite: Honors College 101E. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor may 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 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. Enforced 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 not be applied toward elective units toward Sociology major. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
190HC. 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 writing assignments. Maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

19A. Undergraduate Seminar: Self and Identity. (5) Seminar, three hours. Limited to junior/senior Sociology majors. Examination of cultural, historical, and interactional contexts shaping definition, enactment, and experience of self. Reading, discussion, and development of culminating project. Letter grading.


19F. Undergraduate Seminar: Sociology of Globalization. (5) Seminar, three hours. Three to laboratory, 24 hours. Limited to CAPP Program students. Seminar for undergraduate students in Center for American Politics and Public Policy program in Washington, DC. Focus on development and execution of original empirical 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.

19G. Undergraduate Seminar: Urban and Suburban Sociology. (5) Seminar, three hours. Limited to juniors/seniors. 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. Study of global urbanization 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, segregation, social integration and fragmentation, gentrification, immigration, urban culture (especially art, museums, and movie and music industries), and environmentalism. Concurrently scheduled with course 2587. Letter grading.

19I. Undergraduate Seminar: Urban and Suburban Sociology in New York City. (5) Seminar, eight hours. Limited to students in summer UCLA Travel Study Program. Focused on New York City’s largest city, including New York’s attempt to plan for city of 9.2 million, rebuilding of World Trade Center, Robert Moses’s (New York’s master builder), urban renewal, New York, trans- portation systems, urban politics, house and architectural styles, including New York’s famous skyscrapers, historic preservation, crime and police departments, ghettos, education, urban poverty, housing, search for affordable housing. Offered in summer only. Letter grading.


19K. Undergraduate Seminar: Cigarettes and Western Civilization—Sociological History of Smoking. (5) Seminar, three hours. Limited to juniors/seniors. Use of history 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 foundation of European colonies in New World, its cultural incorporation in western Europe, its role in rise of industrial way of life, and its health consequences, and its demise as legitimate soft drug for modern urban people. Letter grading.


19M. 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 and choice of patterns of fertility, and effects of environment on humans. Reading, discussion, and development of culminating project. Letter grading.

19N. Undergraduate Seminar: Urban and Suburban Sociology. (5) Seminar, three hours. Limited to juniors/seniors. 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. Study of global urbanization 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, segregation, social integration and fragmentation, gentrification, immigration, urban culture (especially art, museums, and movie and music industries), and environmentalism. Concurrently scheduled with course 2587. Letter grading.

19P. Undergraduate Seminar: Politics of Reproduction (5) Seminar, three hours. Limited to juniors/seniors. Social interaction and action is a central feature of global policy issues. Government efforts to influence reproductive behavior 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 issues addressing prevention and promotion of reproduction. Readings and discussion, faculty sponsor and write final research paper. Faculty sponsor and development of observational and analytic skills. Reading, discussion, and development of culminating project. Letter grading.

19P. Undergraduate Seminar: Cultural Sociology. (5) Seminar, three hours. Limited to juniors/seniors. Introduction to classic theoretical approaches and contemporary developments in cultural sociology. Focus on development and effects of environment on humans. Topics include density, maintaining and choice of patterns of fertility, and effects of environment on humans. Reading, discussion, and development of culminating project. Letter grading.

19Q. Undergraduate Seminar: Sociology of Gender and Sexuality. (5) Seminar, three hours. Limited to juniors/seniors. Sexuality is important site for enactment of gender and gender identity. Sexual preference and sexual behavior can also provide a 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. Discussion of research and methods in study of sexuality and gender, and effects of environment on humans. Reading, discussion, and development of culminating project. Letter grading.

19R. Variable Topics Research Seminars: Sociology. (5) 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.

19S. Research Group Seminars: Sociology. (2) Seminar, three hours. Limited to undergraduates who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit. P/NP grading.

19T. Variable Topics Research Seminars: Political Science. (5) 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.

19U. Community or Corporate Internships in Sociology. (4) Tutorial, three hours. Limited to juniors/seniors. Internship coordinator will assist in placement for internships. Business to be supervised jointly by Center for Community Learning and faculty adviser. Students meet on regular basis with instructor and provide weekly reports of their experiences. Examination of features of solid and significant research; intensive writing. Letter grading.

19V. Community or Corporate Internships in Sociology. (4) Tutorial, three hours. Limited to juniors/seniors. Internship coordinator will assist in placement for internships. Business to be supervised jointly by Center for Community Learning and faculty adviser. Students meet on regular basis. Letter grading.

19W. Community or Corporate Internships in Sociology. (4) Tutorial, three hours. Limited to juniors/seniors. Internship coordinator will assist in placement for internships. Business to be supervised jointly by Center for Community Learning and faculty adviser. Students meet on regular basis with instructor and provide weekly reports of their experiences. Examination of features of solid and significant research; intensive writing. Letter grading.

19X. Community or Corporate Internships in Sociology. (4) Tutorial, three hours. Limited to juniors/seniors. Internship coordinator will assist in placement for internships. Business to be supervised jointly by Center for Community Learning and faculty adviser. Students meet on regular basis. Letter grading.
graduate student coordinator construct series of reading assignments that examine issues related to internships site. May be repeated for credit with consent of Center for Community Learning. No more than 4 units may be applied toward major; units applied must be taken for letter grade. Individual contract with supervising faculty member required. P/NP or letter grading.

M195DC. CAPPF Washington, DC. Internships. (4) (Same as History M195DC and Political Science M195DC.) Limited to junior/senior sociology majors. Independent intensive study designed for students interested in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and participate in periodic projects related to their experience. Individual contract with supervising faculty member required. P/NP grading.

198A-198B-198C. Honors Research in Sociology. (4-4-4) Lecture, three hours; laboratory, one hour. Requisites: courses 210A, 210B. Special permission of instructor. Conceptual, mathematical, and computational foundations of machine learning, with special focus on social science applications. Survey of supervised and unsupervised methods, including Naïve Bayes, K-modes, logistic regression, decision trees (classification and regression), topic models, and neural networks. Practicalities of implementation on range of data types. S/U or letter grading.

210A-210B. Intermediate Statistical Methods I, II. (4-4) Lecture, three hours; discussion, two hours. In-depth statistical methods using computers: probability theory, hypothesis testing, interval estimation, multiple regression and correlation, experimental design, analysis of variance and covariance, contingency tables, sampling theory. S/U or 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 inappropriate, including categorical data, structural equations, longitudinal data, incomplete and erroneous data, and complex sampling. S/U or letter grading.

211A-211B. Comparative Historical Methods. (4-4) Lecture, three hours. In Progress (211A) and S/U or letter (211B) grading.

212. Foundations of Ethnomethodological, Phenomenological, and Analytical Sociology. (4) Lecture, three hours. Preparation: one formal or social science course. Application of theoretical approaches 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.

212C. Study Design and Other Issues in Quantitative Data Analysis. (4) Lecture, three hours. Designed for graduate and undergraduate students who have had some exposure to statistics and quantitative methods. Introduction to study design, including experimentation and longitudinal design; independent study and 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 M213, Community Health Sciences M213, and Biostatistics M213B.) Lecture, four 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.

213B. Applied Event History Analysis. (4) Lecture, three hours. Preparation: exposure to binary response models. Requisites: courses 210A, 210B. Introduction to regression-like analyses in which outcome is time to event. Topics include logit models for discrete-time event history models; proportional hazards models; proportional hazards; nonproportional hazards; parametric survival models; heterogeneity; multi-level survival models. S/U or letter grading.


216A-216B. Survey Research Design. (4-4) Lecture, 90 minutes; discussion, 90 minutes. Requisite: course 210A. History of survey methods; facet meta-theory and concept formation; questionnaire and item design; scales, indices typologies; data collection; planning and managing a research project, and experience sampling; multistage probability sampling, stratification and clustering. Students participate in survey research projects. Letter grading.

217A. Analyzing Ethnographies. (4) Seminar, three hours. Analysis of ethnographic monographs and S/U or letter grading.

217B-217C. Ethnographic Fieldwork. (4-4) Seminar, three hours. Recommended prerequisite: course 217A. Theories and techniques of ethnographic fieldwork. Kinds of problems amenable to ethnographic approaches, methods, and techniques for doing fieldwork, and ethical problems involved in such research. In Progress (217B) and letter grading.

220. Self and Society. (4) Lecture, three hours. Examination of social and cultural processes shaping definition and experience of the self, embodied interactional 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 Analytical Sociology. (4) Lecture, three hours. Designed for graduate students. Basic issues, methods, and topics of ethnomet hodological, phenomenological, conversation-analytic, and other varieties of social sciences such as work of everyday life, problem of rationality, rules and norms and tacit knowledge, problem of social order, speaking and discourse, and practices and performance of ordinary interaction in first part; guest presentations by affiliated faculty in second part. S/U or letter grading.
233. Phenomenological and Interactionist Perspectives on Selected Topics. (4) Lecture, three hours. Comparison of phenomenological and symbolic perspectives by examining particular body of live or currently unresolved substantive issues. Topics vary. Lecture, attention 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 logical 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 Series. (4) Same as Economics M204A.) Lecture, three hours. Examination of issues such as demography, health, aging, labor, and broad array of topics concerned with effects of economic, social, and political transformations on human 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 critiqued 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 is comparative at level of theory (attending to relationship between race and other forms of social classification, including ethnicity and nationalism) as it does at level of research. Exploration of case studies from 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, three hours. Race, class, gender, and sexual identity are axes of stratification, identity, and experience. They are not merely identities but structural locations that are often taken for granted and rarely confronted, contested. Many books on 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 economic, political, and cultural factors. How race, class, and gender inequalities shaped by the social institutions, including cultural institutions, economy, and family, within contexts of experiences of black women and black men in contemporary U.S. society.

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 gender, age, race, and nationalism. Examination of contemporary “globalization” tendencies of capitalistic 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 traditions and contemporary exemplars. Special attention to competing perspectives on power, theory of state, and relationships of class structure to politics. S/U or letter grading.

234. Sociology of Development. (4) Seminar, three hours; discussion, one hour. Reading and discussion of theoretical, historical, and specific issues in sociology of development (e.g., world system theory, developmental state and import substitution industrialization, export promotion industrialization, neoliberalism in Latin America, new approaches). S/U or letter grading.

235A-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 in U.S. S/U or letter grading.

236A-236B-236C. International Migration. (4-4-4) 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’s focus on stratification at two levels. Examination of how scholars’ role in maintaining or altering stratification and inequality by looking at quantitative and qualitative approaches to race, class, gender, and sexuality in education. Examination of how sociology of education can exist alongside, provide foundation for, or obfuscate other longstanding commitments in study of schooling including moral character, citizenship, ethnic nationalism, and maintenance of racial, and sexual order. Examination of classic philosophical texts and recent sociological and historical work on how broader structures of government, culture, and science affect what sociologists think and what sociologists 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 paralyzing space for gender or does feminist-informed sociology necessitate fresh approach? S/U or letter grading.

244A-244B-244C. Conversation Analysis I, II, III. (6–6–6) Lecture, three hours; discussion, two hours. S/U or letter grading. Requisite: course 244A. Continuation of introduction to some structures basic to organization of conversational interaction: turn-taking organization and sequence organization. Requisite: course 244A. Continuation of introduction to some structures basic to organization of conversational interaction: practices of action formation, story telling organization, and overall structural organization of single conversational interactions.

245. Cultural Sociology: Classical and Contemporary Approaches. (4) Lecture, one hour; discussion, two hours. Exploration of classical approaches to cultural dimension of social life—Weberian, Durkheimian, Parsonsian, 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 materialism, psychoanalysis, postmodernism, 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; experimental approaches to emotions; motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and emotions; creativity and expressed affect; thought, sensations, and emotions; social cognition and 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.

250. Sociology of Health. (4) Seminar, three hours. Exploration of literature of human health as product of human society. Students will examine the relevance of macro organizational features of national society (culture, economy, politics) while maintaining awareness of micro pathways that link these wider influences on personal experiences (of illness, of em- pathy). 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 exploration of current theoretical debates and empirical research on social movements, collective
action, and contentious politics, examining case studies, comparative analyses, and large-N investigations, with a 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.) Seminar, 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. Problems of Reproduction, Gender, and Family. (4) Seminar, three hours. Human reproduction and its regulation have long been a focus of contentious politics around the world and remain topical today. Reproduction refers here to biological and social reproduction, interdependence shapes policies and practices pertaining to them. Government efforts to influence 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 blurs lines between public and private interests. Exploration of diverse aspects of politics of reproduction, their gendering, and their impact on changing family forms to encourage demographic shifts comparably 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. 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.


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. Discussion will focus primarily on demographic literature. S/U or letter grading.

258. 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 united feminist movements possible or is gender too different across cultures? S/U or letter grading.


260. Black Families and Relationships. (4) (Same as American African Studies M260C.) Seminar, three hours. Evaluation of social, cultural, and historical forces that affect socialization, stability, and interaction in black intimate relationships, beginning with the theoretical framework from black feminism to analysis of economic and other expectations for partners in cohabiting and other types of unions. Examination of family life in both middle-class and low-income populations. Exploration of notions of black sexuality, in black intimate relationships, beginning with the forces that affect socialization, stability, and interaction in black intimate relationships.

262. Selected Problems in Mathematical Sociology. (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.

263. Sociology of Medicine. (4) Seminar, three hours. Review of major concepts and issues in sociology of medicine. Topics include medicine, culture, and capitalism; professions and power, the change of managed care, sick role and social control, interactionism and negotiation of sickness, sickness and self, debates over medicalization and demedicalization. Designed as preparation for field examination in sociology of health and medicine and specifically for theses traditionally included under medical sociology/sociology of medicine. S/U or letter grading.


266. Seminar on Selected Current Topics of Sociological Interest. (4) Seminar, three hours. Designed for graduate students. Seminars 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.

267. 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 the study of Chinese society, both historical and contemporary, including demographic, economic, political, and social change before and after 1949. S/U or letter grading.

268. Data Analysis. Laboratory, two hours. Practice in analysis of conversational data. May be repeated for credit. S/U grading.

269. 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.

270. Working Group in Sociology. (1 to 4) Discussion, two hours. Variable topics, including sociology of gender; ethnography; social networks; race, ethnicity, immigration, and social integration; and stratification. Advanced study and analysis of current topics in specialized areas of sociology. Discussion of current research in literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

271. Urban and Suburban Sociology. (5) Seminar, three hours. History and present condition of cities and suburbs in America and other global cities such as New York and Los Angeles, and comparisons to London and Shanghai. Process of urbanization 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, segregation and integration of neighborhoods, questions of gentrification, immigration, urban culture (especially art, museums, and movie and music industries), and environmentalism. Concurrently scheduled with course C191N. Letter grading.

272. Workshop in Culture and Society. (4) Seminar, two hours every other week. Interdisciplinary workshop for graduate students and faculty pursuing theoretical and research topics related to interplay of culture and society, whether social, literary, or philosophical in nature. S/U grading.

273. Seminar in Teaching and Learning (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.

274. Practices of Evaluation in Health Services: Theory and Methodology. (4) (Same as Health Policy M422.) Lecture, four hours. Requisites: Health Policy 200A, 200B. A course designed to evaluate the health ser-
Spanish and Portuguese

SOUTH ASIAN STUDIES
See International and Area Studies

SOUTHEAST ASIAN STUDIES
See International and Area Studies

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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 and Culture, BA in Spanish and Linguistics, BA in Spanish and Portuguese, and BA in Portuguese, 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 Chicana 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 and 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, presenting their work to peers and helping to further peers’ work through discussion and critique.

For the Spanish and Community and 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 differences, and ability to perform scholarly presentations that tie current issues to research and theory.

Undergraduate 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.

For the Spanish and Community and Culture major, required courses focus on service and social work.

All 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 or equivalent, and 42 and 44 or equivalent as determined by the undergraduate adviser. 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 introduc-
Required: (1) Two core courses (Spanish 119 and 120), (2) eight upper-division Spanish elective courses in literature, culture, linguistics, media, service learning, or interdisciplinary studies, up to two of which may be from an outside department that deals with Spain or Spanish America and have been approved by the undergraduate adviser, and (3) one senior capstone seminar (Spanish 191C).

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 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 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 American civilization course, and one Portuguese 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 upper-division courses selected from Chicana and Chicano Studies 100SL, Spanish M165SL, M172SL. A minimum of 46 units applied toward the major requirements must be in Spanish, one Spanish civilization course or one Spanish American civilization course, and one Brazilian civilization course.

Spanish and Linguistics BA

Learning Outcomes

The Spanish and Linguistics 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, Linguistics 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.

Spanish and Portuguese BA

Learning Outcomes

The Spanish and Portuguese major has the following learning outcomes:

- Demonstrated oral, aural, and written mastery of the Spanish and Portuguese languages
- 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: Spanish 25 or 26 or 27 (27 recommended), and 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, 130B, and seven elective courses selected from 100A through 199. 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 eight of the 10 courses must be taught 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 198B and Spanish 198B 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-198B 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 3314 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, M120, M125, M132, 142, 172, 184, Ethnomusicology M108A, Geography 181, 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 Minor

To enter the Portuguese 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 46.

Required Upper-Division Courses (20 units): Five courses selected from Portuguese 100A through 199, three of which must be taught in Portuguese. Only one 4-unit Portuguese 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 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. 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 Spanish and Portuguese offers the Master of Arts (MA) degree in Spanish, Master of Arts (MA) degree in Portuguese, and Candidate in Philosophy (CPhil) and Doctor of Philosophy (PhD) degrees in Hispanic Languages and Literatures.
Indigenous Languages of the Americas

Lower-Division Courses


17. Intensive Elementary Quechua. (12) Lecture, 15 hours; laboratory, five hours. Intensive course equivalent to courses 18A, 18B, 18C. Language of Incas and its present-day dialects, as spoken in Andean South America. Offered in summer only. 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. 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.

21. Student Research Program. (1 to 2) Tutorial, four hours; 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.

Upper-Division Courses

M115A-M115B-M115C. Advanced Nahuati. (4-4-4) (Same as Chicana and Chicano Studies M115A-M115B-M115C and International and Area Studies M115A-M115B-M115C.) Lecture, four hours. Requisite: courses M15A, M15B, M15C. Course M115A is requisite to M115B, which is requisite to M115C. Taught primarily in Nahuati. Examination of Nahuati (Aztec) language of central Mexico at intermediate level. Coverage of Nahuati grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

119A-119B-119C. Advanced Quechua. (4-4-4) Lecture, five hours. Requisite: course 119A. Course 119A is requisite to 119B, which is requisite to 119C. Readings in Quechua. Dialectal and stylistic variation. Discussions mainly in Quechua. 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: Indigenous Languages. (2 or 4) Seminar, three hours. Research seminars on selected topics on various indigenous languages. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

Graduate Course

506. Directed Studies in Quechua. (1 to 8) Tutorial, to be arranged. Requisite: courses 119A, 119B, 119C. Directed individual study or research in Quechua. Four units may be applied toward MA course requirements. May be repeated for credit. S/U grading.

Portuguese

Lower-Division Courses

1. Elementary Portuguese. (4) Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Introductory Portuguese 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 Portuguese. (4) Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Introductory Portuguese 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.

3. Intermediate Portuguese. (4) Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Intermediate Portuguese 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.

4a-4b. Portuguese Conversation. (2-2) Discussion, three hours. Enforced requisite: course 3 with grade of B or better. P/NP or letter grading.

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.


25A. Advanced Portuguese: 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.


26A. Language and Popular Culture: Summer Course. (4) Lecture, 20 hours. Enforced requisite: course 3 or 11B. Development of speaking, reading, and writing skills. Structured in thematic units, with songs, videos, and specific vocabulary emphasizing 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. Enforced 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 3 or 11B. 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: How language and its 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, 20 hours. Enforced requisite: course 3 or 11B. Cultural and historical overview 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. 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. Spanish, Portuguese, and Nature of Language. (5) (Same as Spanish 90.) Lecture, four hours; discussion, one hour. Introduction to language study within context of Romance languages, focusing on Spanish and Portuguese: How language and its 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.
99. Student Research Program. (1 to 2) Maximum of 4 units. Individual honors contract requiring 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


130A-130B. Introduction to Literature in Portuguese. (4–4) Lecture. Four hours. Requisite: course 25 or 26 or 27. Introduction to principal themes, currents, and authors from Portuguese-speaking world. May be repeated for credit with topic change. P/NP or letter grading.

141A. Literature and Film in Portuguese. (4) Lecture, four hours. Taught in English. Study of intertextuality and dialogism, interactions between literary and cinematic expression, and influences of literature on film and vice versa. May be repeated for credit with topic change. P/NP or letter grading.

141B. Film, Television, and Society in Brazil. (4) Lecture, four hours. Taught in English. Study of development, evolution, and impact of film and television in Brazil against backdrop of broader social, historical, and cultural contexts. May be repeated for credit with topic change. P/NP or letter grading.

142A. Brazil and Its Culture. (4) Lecture, four hours. Taught in English. Overview of documentary film production in Portuguese-speaking world, with special focus on period since 1985. May be repeated for credit with topic change. P/NP or letter grading.

142B. Brazil and Portugal 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. Study of modern relations 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 and discussion, with emphasis on sociocultural context, 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. 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. 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. Requisite: as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or activities. May be repeated for credit with topic change. P/NP or letter grading.

191. Undergraduate Variable Topics Seminars: Portuguese. (2) Seminar, three hours. Requisite: course 25 or 26 or 27. Research seminar on selected topics in Portuguese literature and arts. May be repeated for credit with topic change. P/NP or letter grading.


229. 20th-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.


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.

249. Folk Literature of Spanish and Portuguese Worlds. (4) (Same as Spanish M249.) Lecture, three hours. Intensive study of Spanish and Portuguese folk literature as represented in (1) ballad and poetry, (2) narrative and drama, (3) speech. S/U or letter grading.

252A. 1924A. M252B. 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.

252B. Studies in Early Portuguese Literature. (4) Discussion, two hours. S/U or letter grading.

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. Intermediate Spanish. (4) Lecture, three hours; laboratory, five hours. Enforced requisite: course 1 or one year of high school Spanish. Intensive basic course in Spanish, with cultural activities, field trips, luncheons. Offered in summer only. P/NP or letter 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. Intensive Spanish. (4) Lecture, 20 hours; laboratory, five hours. Enforced requisite: course 1 or one year of high school Spanish. Intensive 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. Introductory Spanish language and culture course designed to increase communicative ability. Acquisition of cultural competence and introduction to study of literature. Comprehension of conversations and stories of contemporary Spanish culture, reading of texts with minimum use of dictionary, writing 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, writing 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 7A 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.

8A-BB. Spanish Conversation. (2-5) Discussion. three hours. Course 8A 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 accredited language sequence equivalent to three terms of traditional pattern and designed for advanced undergraduate and graduate students. P/NP or letter grading. 11A. Preparatory course 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, reading, writing, and cultural competence. P/NP or letter grading. 12B. Requisite: course 12A. 12C. Requisite: course 12B.

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of an area of Spanish or Portuguese literature, with special interest in 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 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.


28A. 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. (5) 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.

32A. Bilingual Cultures. (5) Lecture, four hours; discussion, one hour. Requisite: majors. Majors taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spain, 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. Requisite: majors. Majors 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 Literatures in Translation. (4-4-4) Lecture, three hours. Class readings and analysis of selected works in translation. Classroom discussion, papers, and examinations in English. 60A. Spanish Literature; 60B. Spanish-American Literature; 60C. Don Quijote.

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 Honors 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 credit noted on transcript. P/NP or letter grading.

99H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated 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


107. Advanced Spanish Grammar for Heritage Speakers (4) Lecture, four hours. Requisite: course 27. Stresses acquisition of standard and formal registers and advanced grammatical structures, accentuation, orthography, and avoidance of vocabulary and sentence patterns that are not part of the linguistic background to perfect grammar and writing 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.

119. Introduction to Literary Analysis (4) Lecture, four hours. Requisite: course 25 or 27. Introduction to methods of analyzing literature, with emphasis on Spanish-American, and Chicana/Chicana literature. Special attention to four major genres: poetry, narrative, drama, and letter genres.

120. Literature in Historical Context (4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 25 or 27. Introduction to different ways of looking at literary works as historical phenomena. Presentation of major models of the study of literature—narrative, lyric, critical, 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 historical narrative. Important Hispanic authors: Bécquer, Isaacs, Mera, Villaverde, and Galdós. May be repeated for credit with topic change. P/NP or letter grading.

140. Topics in Modern Studies (4) Lecture, four hours. Requisite: advanced knowledge of major literary movements and writers of 18th and 19th centuries in Spain and Spanish America. Possible topics include Enlightenment, Romanticism, nation-building literature, realist works, by Cadalso, Conocedorco, Lizardi, Larra, Sarmiento, Bécquer, Isas, Mera, Villaverde, and Galán. May be repeated for credit with topic change. P/NP or letter grading.

141A4, Introduction to Chicana Literature: Literature to 1960. (4) (Same as Chicana and Chicano Studies M145A) Lecture. Three hours. Requisite: course 25 or 27. Exploration of main trends that characterize contemporary Latin American and Spanish writings. Literature and main concepts used to address them. Possible topics include transnational and heterogeneity, race and ethnicity, vanguard movements, popular and cultures, literary experimentation, literature, autobiography, women's writing, modernism, and postmodernism. May be repeated for credit with topic change. P/NP or letter grading.

151.55A. Chicano Narrative. (4) (Same as Chicana and Chicano Studies M146.) Lecture, three hours. Enforced requisite: course 25 or 27. Introduction to major Chicano narrative forms, novel, poetry, autobiography, cronicón, 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.

151.55B. Literature of Chicana/Chicano Movement. (4) (Same as Chicana and Chicano Studies M145B.) Lecture, three hours. Enforced requisite: course 25 or 27. Examination of literary, novelistic, autobio- graphy, cronicón, semblanza, Chicana detective, and Chicana solidarity fiction. May be repeated for credit with topic change. P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced 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, recent demographic changes, new transnational identities, and mixed citizenships of Latinos and Latinos. Chicanos, Puerto Rican, Cuban American, Central American American, South American American, and Chicana Latin American literatures may be included. May be repeated for credit with topic change. P/NP or letter grading.

156. 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: bilingualism, 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.

156 SL. Taking It to Street: Spanish in Community. (3) (Same as Chicana and Chicano Studies M167SL.) 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 are required to spend minimum of eight to 10 hours per week at a site of their choice in a Latino community. P/NP or letter grading.

170. Topics in Media, Interdisciplinary, and Transnational Culture. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 25 or 27, 119. Interactions among ethnic and live arts, and way they exist in mass media, new technologies, and different platforms. Possible topics include visual cultures in Latin America, Latin American and Spanish-American cinema, musical literature, live arts and performance in popular culture, three-dimen- sional modeling of material culture, and architecture of medieval Iberia. May be repeated for credit with topic change. P/NP or letter grading.

172SL. Latinos, Linguistics, and Literacy. (5) (Same as Chicana and Chicano Studies M170SL.) Seminar, four hours; field project, four to six hours. Recommended requisite: course 100A. In-depth study of various topics related to literacy, including different definitions of literacy, programs for adult preliterates, literacy and gender, approaches to literacy (whole language, phonics, Freire's liberation pedagogy), history of writing systems, phoneme as basis for alphabetical writing, and national literacy campaigns. Required field project involving Spanish-speaking adults in adult literacy programs. P/NP or letter grading.

175. Topics in Creative Writing and Translation. (4) Seminar, three hours. Requisite: course 25. Exploration of art of translation or creative writing. Guest speakers or instructors include professional literary translators, novelists, poets, novelists, poets, and playwrights who discuss theory, methodology, and prac- tice of their art. May be repeated for credit with topic change. P/NP or letter grading.

187A-187B. Advanced Tutorial in Community and Cultural Literacy. (1-2) Tutorial, one hour. Requisite: course 25 or 27. Designed as adjunct to upper-division course in Hispanic literature, language, and culture. 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 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. Designed to provide opportunity for undergraduate 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 re- quired. Honors content noted on transcript. Letter grading.

191A. Advanced Honors Seminars. (1) 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 of- fered in specific term. May be repeated toward honors credit for eligible stu- dents. Honors content noted on transcript. Letter grading.

191B. Variable Topics in Spanish: Studies in Hispanic Culture. (4) Seminar, three hours. Advanced variable topics course that studies diverse aspects of Hispanic culture, civilization, and history. Classroom discussions, development of culmi- nating 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 major. Designed to provide opportunity to synthesize knowledge from previous coursework used 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) 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 provided with appropriate guidance. 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. As signed offer of 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. Individual contract required. P/NP or letter grading.

198A-198B. Senior Honors Research in Spanish. I, II. (2 to 4) 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 requirement for 198B. Limited to juniors/seniors. Development and completion of honors thesis under direct supervision of faculty member. May not be applied toward major requirements. Individual contract required. P/NP or letter grading.

199. Directed Research in Spanish. (2 to 4) Tutorial, to be arranged. Requisite: course 25. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. Eight units of courses 197 and/or 199 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 Portuguese M200.) Lecture, three hours. Identification and use of research resources for graduate students.


M202A. Phonology. (4) Lecture, three hours. Study of the sound structure of Spanish and major phonological processes that map underlying representations into surface representations. Bearing of phonological theory on study of data.

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 representations and formal conceptions within a principles and parameters framework. Bearing of syntactic and semantic structure on study of literature.

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 prehistoric through Old Spanish. Each course may be repeated once with topic change and consent of appropriate guidance committee. S/U or letter grading.

M207. Dialectology. (4) Lecture, three hours. Major dialect areas of peninsular and American Spanish, with distinguishing features of each. Influence and contribution of cultural and historical features, including indigenous language, to their formation.

M211. Medieval Lyric Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish lyric poetry from the beginning to 1500.

M222. Medieval Epic and Narrative Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish epic and narrative poetry from the beginning to 1500.

M223. Medieval Prose. (4) Lecture, three hours. Readings of and lectures on Spanish prose from the beginning to 1500.

M224. Poetry of the Golden Age. (4) Lecture, three hours. Readings of and lectures on Spanish poetry from 1500 to 1700. Portuguese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate guidance committee.

M256A-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.

M257. Studies in Dialectology. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

M264A-264B. Studies in Golden Age Spanish Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

M277A-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.

M306A-306B. Studies in Chicano Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

M310. Teaching Spanish in Elementary School. (4) Lecture, three hours. Preparation of instruction and practice in integrating writing into curriculums, 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 member 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.


595. 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.


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Frederic R. Paik Schoenberg, PhD
Theodore M. Porter, PhD
Janice L. Reff, PhD (Waldo W. Neikirk Term Professor)
David L. Rigby, PhD
Yingnian Wu, PhD
Hongquan Xu, PhD
Qing Zhou, PhD
Song-Chun Zhu, PhD

Assistant Professors
Araesh A. Amini, PhD
Alyson K. Fletcher, PhD
Tao Gao, PhD
Erin K. Hartman, PhD
Chad J. Hazlett, PhD
Jingyi Jessica Li, PhD
Karen A. McKinnon, PhD
Guido F. Montúfar, PhD

Senior Lecturer SOE
Robert L. Gould, PhD

Senior Lecturers
Nicolas Christou, PhD
Maryam M. Esfandiar, PhD
Vivan Lew, PhD
Juan Sanchez, PhD

Lecturers
Akrum M. Almohalwas, PhD
Maria Cha, PhD
Miles S. Chen, PhD
Michael Tsang, PhD
Linda A. Zanontian, PhD

Adjunct Associate Professor
Ijavol D. Dinov, PhD

Adjunct Assistant Professor
Katherine M. Mullen, PhD

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

Undergraduate Study

The Statistics and Data Theory majors are designated capstone majors. The Statistics major prepares students for future academic studies as well as for careers in which understanding, analyzing, communicating, 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.

Undergraduate Courses

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.

Scope and Objectives

With the advent of fast computing and the subsequent flood of data detailing almost every aspect of our daily lives comes an urgent need for scientists trained in modern statistical methodologies.

Both the undergraduate and graduate programs in the Department of Statistics are structured around three core course sequences that introduce students to the science of data: theoretical statistics, data analysis, and statistical computing. This balance reflects the scale and complexity of problems that statisticians are now routinely called to address. Additional course offerings reflect the work of faculty members in bioinformatics, social networks, environmental studies, and computer vision.

Courses and workshops for secondary school teachers of statistics are also offered in order to promote sound statistics pedagogy throughout the curriculum.

Reflecting diverse research interests, the department is organized around several centers that collectively offer undergraduate and graduate students rich opportunities for specialized study. These include the Center for Environmental Statistics; Center for Social Statistics; Center for Vision, Cognition, Learning, and Autonomy; Center for Statistical Research in Computational Biology; and Center for the Teaching of Statistics.
Premajor

Incoming freshman and transfer students may be admitted as Statistics premajors on acceptance to UCLA. Premajors must apply for the major after completing Statistics 10 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, 310-206-3742.

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 110, 131, 143 through 199, Mathematics 131A, 131B, 151A, 151B, 170B, 171, 172B, 175. Elective courses from outside the department are selected in consultation with the graduate 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 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 60 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 CISI through 199 (except Statistics 182, 186, or 189); two additional electives from...
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 13 for letter grades with a minimum grade of C or better in each and a grade-point average of 2.0 or better.

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

12. Introduction to Statistical Methods for Geography 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 graphical and environmental science. Underlying logic 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 packages, including spatial statistics, P/NP or letter grading.

13. Introduction to Statistical Methods for Life and Health Sciences. (5) Lecture, three hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for course 10, 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.

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 pathways of discovery at UCLA. P/NP grading.


35. Introduction to Probability with Applications to Poker. (4) Lecture, three hours; discussion, one hour. Exploration of some main topics in introductory probability theory, especially discrete probability problems, that are useful in various applications. Topics include conditional probability and conditional expectation, combinatorics, laws of large numbers, central limit theorem, Bayes theorem, universal 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 poker. Texas Hold’em and other games. P/NP or letter grading.

88. Sophomore Seminars: Statistics. (2) Seminar, two hours. Requisite: courses 10, 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.

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.

89H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated 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.

99HC. Honors Contracts. (1) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under faculty guidance. Credit may be earned. 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.

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 guidance. Credit may be earned. 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 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. Students may receive credit for only one of the following: course 102A, 110A, Biostatistics 100A. Probability distributions, random variables, vectors, and expectation. P/NP or letter grading.

100B. Introduction to Mathematical Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Mathematics 170A. Survey sampling, estimation, testing, data summary, one- and two-sample problems. P/NP or letter grading.

100C. Linear Models. (4) Lecture, three hours; discussion, one hour. Requisite: course 100B. Theory of linear models, with emphasis on matrix approach to linear regression. Topics include model fitting, extra sums of squares principle, testing general linear hypothesis in regression, inference procedures, Gauss/Markov theorem, examination of residuals, principal component regression, stepwise procedures. P/NP or letter grading.

101A. Introduction to Data Analysis and Regression. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10 or 12 or 13, and 20. Recommended: course 102A. Applied regression analysis, with emphasis on general linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping for statistical influence. P/NP or letter grading.

101B. Introduction to Design and Analysis of Experiment. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 101A. Fundamentals of collecting data, including randomization and blocking, completely randomized design and ANOVA, multiple comparisons, power and sample size, and block designs. P/NP or letter grading.

101C. Introduction to Statistical Models and Data Mining. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 101B. Designed for juniors/seniors. Applied regression analysis, with emphasis on generalized linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping for statistical influence. P/NP or letter grading.

102A. Introduction to Computational Statistics with R. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10 or Economics 41 or scoring of 4 or higher on Advanced Placement Statistics Examination, course 20, Mathematics 33A. Introduction to computational statistics through numerical methods and computationally intensive methods for statistical problems. Topics include statistical graphics, root finding, simulation, randomization testing, and bootstrapping. Covers intermediate to advanced programming with R. P/NP or letter grading.

102B. Introduction to Computation and Optimization for Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 100B, 102A, Mathematics 33A. Introduction to computational methods and optimization useful for statisticians. Use of computer programming to solve statistical problems. Topics include vector/matrix computation, multivariate normal distribution, principal component analysis, clustering analysis, gradient-based optimization, EM algorithm for missing data, and dynamic programming. P/NP or letter grading.

102C. Introduction to Monte Carlo Methods. (4) Three hours; discussion, one hour. Requisites: courses 100B, 102A. Introduction to Markov chain Monte Carlo (MCMC) algorithms for scientific computing. Generation of random numbers from specific distributions; rejection and importance sampling and its role in MCMC. Markov chain theory and convergence properties. Metropolis and Gibbs sampling algorithms. Extensions as simulation techniques. Theo-

C145. History and Theory of Statistics. (4) Lecture, three hours. Enforced requisite: course 100B. History of statistical thought: focusing on empirical observations and development of hypotheses. Theoretical and practical understanding of methods and their implementation within the scientific community. Philosophical tenets of statistics; use of concept of probability as transparent and relatively objective means for analyzing empirical observations. Theory of statistical hypothesis generation and hypothesis testing. Designed to provide understanding and perspectives on role of statistics in modern science, theory of statistics, and its strengths and weaknesses. Concurrently scheduled with course C245; P/NP or letter grading.

C151. Experimental Design. (4) Lecture, three hours. Requisite: courses 100C, 101A. Basic principles, analysis of variance, randomized block designs, Latin squares, balanced incomplete block designs, factorial designs, fractional factorial designs, minimum aberration designs, robust parameter designs. Concurrently scheduled with course C251; P/NP or letter grading.

154. 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 behavioral science data. Classical test theory, 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 in social or life 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 generalizing sampling results to a population. Practical applications of sampling methods via lectures and hands-on laboratory exercises. Concurrently scheduled with course CM248; P/NP or letter grading.

157. Introduction to Statistical Data Modeling and Analysis Using Statistics Online Computational Resource. (4) Lecture, three hours; discussion, one hour. Preparation: one engineering, mathematics, physics, or other laboratory science major with computer literacy required. Program in Computing 20A. Probability and statistics topics in data-driven and interactive manner using open Internet resources. Varieties of data, study-deSigns, and applications arising from biomedical, research, and simulated data to prepare students for innovative multidisciplinary research. Use of Statistics Online Computational Resource (SOCR), P/NP or letter grading.

C161. Introduction to Pattern Recognition and Machine Learning. (4) Lecture, three hours. Requisite: course 100B, Mathematics 33A. Introduction to pattern 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) Lecture, three hours; discussion, one hour. Requisite: course 100C or 101B. Exploration of standard methods in temporal and frequency analysis used in analysis of numerical time-series data. Examples provided through hands-on techniques discussed. P/NP or letter grading.

M171 Introduction to Spatial Statistics. (4) (Same as Geography M171.) Lecture, three hours; laboratory, one hour. Requisite: one course from 10, 12, 13. Introduction to methods of measurement and interpretation of geographic distributions and associations. P/NP or letter grading.

C173. Applied Geostatistics. (4) 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, epidemiology, economics, geography, waste management, forestry, oceanography, meteorology, and agriculture and, in general, to every problem where data are available 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) Lecture, three hours; discussion, one hour. Statistical theories used in analyzing spatial data. Study of three types of spatial data: geostatistical models and point patterns, with emphasis on applications and analysis of spatial data using open-source statistical software R, P/NP or letter grading.

180. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 100B, Mathematics 32B. Designed for juniors/seniors. Introduction to statistical inference based on use of Bayes theorem, covering foundational aspects, current applications, and computational issues. Topics include Stein paradox, nonparametric Bayes, and statistical learning. Examples of applications vary according to interests of students. Concurrently scheduled with course C236; P/NP or letter grading.

182. Fundamentals of Scientific Writing. (2) Seminar, one hour. Development and perfection of student writing skills in the communication of various scientific writing and reading assignments. Objectives and techniques of scientific writing and practice with different forms of professional writing. Analysis of quality of writing, including control, clarity, grammar, and mechanics. P/NP or letter grading.


186. Careers in Statistics. (1) Seminar, one hour. Discussion of the application of statistical principles in the workplace and the activities that are commonly required of statistical professionals in industry and government. On-site visits as needed. P/NP 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 design 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 facilitator 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 credit noted on transcript. P/NP or letter grading.
Graduate Courses

200A. Applied Probability. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Math- ematics 110A. Basic limit theorems, sample space, probability, random variables, univariate and multivariate distributions, moment generating functions, characteristic functions, limit theorems. Stochastic processes, martingales, renewal theory, Brownian motion, Markov chains, Poisson processes. S/U or letter grading.


200C. Advanced Modeling and Inference. (4) Lecture, three hours; discussion, one hour. Requisite: either course 200B or Mathematics 170A. Likelihood, generalized linear models, Markov chains, hidden Markov models, cross-validation, time series, nonparametric regression, Gaussian processes, hierarchical Bayes models, Bayesian nonparametrics. Statistical interpretation of physical and biological phenomena. S/U or letter grading.

201A. Research Design, Sampling, and Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 201A. Methods of model fitting and parameter estimation, with emphasis on regression and classification techniques, including those from machine learning. Learning in either obtaining useful conditional expectation function or estimating meaningful parameters of underlying probabilistic model to make inferences or predictions from data. Focus on what is to be modeled, models are not appropriate and may produce misleading estimates. Coverage of classical must know model fitting and parameter estimation techniques such as maximum likelihood fitting and maximum a posteriori probability estimation. Exploration of broader regression/classification techniques that have been ubiquitous in machine learning literature, with special attention to regularization and kernalized methods. S/U or letter grading.

201C. Advanced Modeling and Inference. (4) Lecture, three hours; discussion, one hour. Strongly recommended requisites: courses 200B, 201B. Designed for graduate students. Introduction to advanced topics in statistical modeling and inference, including Bayesian hierarchical modeling, missing data problems, mixture modeling, additive modeling, hidden Markov models, and other Bayesian models. Coverage of computational methods used and developed for these models and problems, 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. Topics include programming 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) Lecture, three hours; discussion, one hour. Recommended requisites: courses 200A, 201A. Survey of computational techniques that are especially useful for statistical analysis, with implementations in statistical package R. Topics include matrix algebra, multidimensional regression, principal component analysis, multivariate analysis, and deterministic optimization methods. S/U or letter grading.


203. Large Sample Theory, Including Resampling. (Formerly numbered 200C.) Lecture, three hours. Requisite: course 200B. Asymptotic properties of tests and estimates, consistency and efficiency, likelihood ratio tests, chi-squared tests. S/U or letter grading.

205. Hierarchical Linear Models. (4) Lecture, three hours. Designed 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 instruct students in how to fit these models using freely available software packages. Topics include regression, poststratification, matching, regression dis- continuity and instrumental variables, as well as multilevel logistic regression and missing-data im- putation. Emphasis on practical topics, programming, building, fitting, and understanding models provided. S/U or letter grading.


207. Statistical Learning with Sparsity. (4) Lecture, three hours. Requisites: course 200A. Introduction to theoretical analysis of machine learning methods, with emphasis on prediction prob- lems. S/U or letter grading.


211. Social Statistics. (4) Lecture, three hours. Preparation: some knowledge of basic calculus and linear algebra. Topics include descriptive statistics, regression, binary analysis, 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 C116. S/U or letter grading.

212. Statistical Analysis of Networks. (4) Lecture, three hours. Limited to graduate students. Introduc- tion to analysis of social structure, conceived in terms of social relationships. Major concepts of social net- work theory and mathematical representation of social contacts such as role and position. Use of graphical representations of network information. S/U or letter grading.


M219. Spatial Statistics. (4) (Same as Geography M205 and Urban Planning M215) Lecture, three hours. Designed for graduate students. Survey of modern methods used in analysis of spatial data. Im- plementation of various techniques using real data sets from diverse fields, including neuroimaging, ge- ography, seismology, demography, and environ- mental sciences. S/U or letter grading.


M231A. Pattern Recognition and Machine Learn- ing. (Formerly numbered M231.) (Same as Com- puter Science M227A) Lecture, four hours of dis- cussion, one hour. Designed for graduate students. Funda- mental concepts, theories, and algorithms for pat- tern recognition and machine learning that are used in computer vision, image processing, speech recogni- tion, data mining, statistics, and computational bi- ology. Topics include Bayesian decision theory, para- metric and nonparametric learning, clustering, comp- uter vision, image processing, speech recogni- tion, and machine learning. S/U or letter grading.


M231C. Theories of Machine Learning. (4) (Formerly numbered 204.) Lecture, three hours. Requisites: courses 201A, 201B. Introduction to useful non- parametric techniques such as nonparametric density estimation, nonparametric regression, and high-di- mensional 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 M268B) Lecture, three hours. Preparation: basic statis- tics, linear algebra (matrix analysis), computer vi- sion. Introduction to broad range of algorithms for sta- tistical inference and learning that could be used in vi- sion, pattern recognition, speech, bioinformatics, data mining. Topics include Markov chain Monte Carlo

232C. Cognitive Artificial Intelligence. (4) Lecture, three hours. Recommended requisites: courses M232A, M232B. Demonstration of how building artificial intelligence systems for foundational principles of human intelligence revealed by cognitive science, including learning from small data, expressing causality of physical world, and inferring mental states of others for intuitive social behavior. Draws from statistical modeling, cognitive science, artificial intelligence, computer vision, and robotics. S/U or letter grading.


C236. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Recommended: M221A or 221B. Bayesian inference based on use of Bayes theorem, covering foundational aspects, current applications, and computational methods. Stein paradox, model selection in Bayesian statistics, interpretation of credible intervals, prior and posterior distributions in social or life 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. Concurrently scheduled with course C180. S/U or letter grading.

240. Multivariate Analysis. (4) Lecture, three hours. Requisite: course 100A or 200A. Formulation of vision as Bayesian inference using models developed for designing artificial vision systems. Applied to statistics, artificial intelligence, and models that can be used to model human performance and serve a benchmark. S/U or letter grading.


M242. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M208D and Psychology M257.) Lecture, four hours. Introduction to multivariate analysis and methods for analysis of data hypothesized to be 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 structural means factory analytic models. Structural equation models (SEM), introduction to analysis of measurement and simultaneous equation models. Parameter estimation, hypothesis testing, and other statistical issues. Computer implementation. Applications. Letter grading.


CM248. Applied Sampling. (4) (Same as Epidemiology M216.) Lecture, three hours; discussion, one hour. Designed for graduate students in social or life 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. Concurrently scheduled with course C180. S/U or letter grading.

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 analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Expansion of topics introduced in previous courses. Introduction to new one-dimensional and multiple-group analysis (causal modeling) by considering models with latent variable analogues of traditional methods in parameter estimation, hypothesis testing, and structural equation modeling. Population Biology. (2) Seminar, one hour. Topics in various areas of statistics and widely applied in several branches of computational biology, such as gene expression, microarray gene expressions, Chromatin-Immunoprecipitation DNA chip (ChIP- chip), and mass spectrometry (MS/MS) proteomics, scientists are collecting genetic, genomic, and proteomic data at rates far beyond imagination a decade ago. Such gigantic volumes of data produced cannot be analyzed and understood without highly sophisti- cated computational methods guided by mathe- matical and statistical principles. Cut-through ge- nomics research from statistical data analytic point of view. S/U or letter grading.

290. Current Literature in Statistics. (2) Seminar, two hours. Designed for graduate students. Open to undergraduate students with consent of instructor. With high-throughput technologies such as genomic sequencing, microarray gene expressions, Chromatin-Immunoprecipitation DNA chip (ChIP-chip), and mass spectrometry (MS/MS) proteomics, scientists are collecting genetic, genomic, and proteomic data at rates far beyond imagination a decade ago. Such gigantic volumes of data produced cannot be analyzed and understood without highly sophisti- cated computational methods guided by mathe- matical and statistical principles. Cut-through ge- nomics research from statistical data analytic point of view. S/U or letter grading.

C290. Seminar: Gene Expression, and Systems Biolo- gy. (2) Seminar, two hours. Designed for graduate students. Open to undergraduate students with consent of instructor. With high-throughput technologies such as genomic sequencing, microarray gene expressions, Chromatin-Immunoprecipitation DNA chip (ChIP-chip), and mass spectrometry (MS/MS) proteomics, scientists are collecting genetic, genomic, and proteomic data at rates far beyond imagination a decade ago. Such gigantic volumes of data produced cannot be analyzed and understood without highly sophisti- cated computational methods guided by mathe- matical and statistical principles. Cut-through ge- nomics research from statistical data analytic point of view. S/U or letter grading.

291SL. Service Learning for Graduate Statistical Consulting. (4) Research group meeting, two hours; fieldwork, two hours. Exposure to real-world problems and clients problems that appear in typical interac- tions between statisticians and researchers, with lec- tures centered on case studies 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- grams. Presentations and written reports required. S/U or letter grading.

292. Graduate Student Statistical Packages Semi- nar. (1 to 2) Seminar, two hours. Introduction to var- ious statistical packages. How to handle data in differ- ent packages (input, output, data management, other functions). Applied regression analysis and design of experiments, together with basic statistical pro- grams. Presentations and written reports required. S/U or letter grading.


297SL. Service Learning and Community Learning for Statistics. (2 to 4) Seminar, three hours; fieldwork, 10 hours. To further knowledge by applying what students have learned in class to a current service work setting under guidance of faculty mentor. Interaction with non-profit 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) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Requirement: one of the following: assistance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Introduction to Probability Modeling. (4) Lecture, three hours; discussion, one hour. Preparation: calculus and linear algebra. Limited to Master of Applied Statistics students. Introduction to probability theory, probability models, and stochastic processes, with emphasis on concepts, intuitions, calculations, and real applications. S/U or letter grading.

401. Survey of Methods in Modern Statistics. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Overview of fundamental concepts and statistical inference and how these are applied in wide variety of settings. Arc of statistical investigation, including data collection, data analysis, formal inference, and model checking. S/U or letter grading.

402. Applied Regression. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Introduction to state-of-art applications of multiple linear regression, understanding systems and predicting outcomes. Topics include review of statistical inference, properties of least-squares estimates, interpreting linear model, prediction and confidence intervals, common diagnostic tools, and bootstrap methods. S/U or letter grading.

403. Mathematical Statistics. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Basic concepts of mathematical statistics and their applications. Mathematics used to prove various statistical theories, with emphasis on real-world applications. Estimation and statistical inference. Random variables and their distributions; random vectors, means, variances, and covariance matrix; and important limit theorems such as central limit theorem. S/U or letter grading.

404. Statistical Computing and Programming. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Fundamentals of statistical programming using R, C, and C++. R is currently state-of-art for statistical computing, simulation, statistical graphics, and analysis of data. C and C++ perform computations much faster, and added speed is necessary for analysis of large datasets and for high-level computations, particularly those involving loops and object-oriented programming. Performance of simulations and analysis of real datasets using C, C++, and R. Fundamental principles and techniques for programming in these languages. How to use and write important functions in R packages. Statistical applications involve linear and nonlinear regression, shrinkage methods, density estimation, numerical optimization, maximum likelihood estimation, classification and resampling. Graphs and real applications are used to illustrate techniques. Analyses of both real and simulated data. S/U or letter grading.

405. Data Management. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Basic principles of data management, including reading and writing various forms of data, working with databases, data cleaning, validation, transformation of data analysis, and utilizes data visualization and data mining techniques. Exploration of related issues of data security, ethics, and scalability. Introduction to and use of variety of software and languages, such as Python, SQL, Stata, SAS, R, 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. Limited to Master of Applied Statistics students. Offers students working knowledge of basic concepts underlying most important multivariate techniques, with an overview of actual applications in various fields, and with experience in using such techniques on problem of their own choosing. Addresses underlying mathematical and probabilistic issues. Reasonable level of competence in both statistics and mathe- matics is required. Letter grading.

412. Advanced Regression and Predictive Modeling. (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 meaningful parameters of models or (2) finding best fitting models we can use to make useful outputs such as predictions or counterfactual estimates. Focus on what is done when linear models are not appropriate and more complicated models may be useful. Generalized linear models and maximum likelihood models as essential tools all statistics students should understand. Examination of shift gears to explore regression techniques that have been ubiquitous in machine learning literature in recent years, with special attention to regularization and kernelized methods. S/U or letter grading.


415. Introduction to Forecasting. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Study of 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 sciences students who are interested in understanding 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 type and models used 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 nearly every science, wherever spatial and spatial-temporal data are obtained. Examples include geology, hydrology, traffic, air and water pollution, epidemiology, economics, geography, waste management, forests, oceanography, meteorology, and agriculture. Theory and modern methods for analyzing both lattice and point process data using R, and studying the performance of various methods. S/U or letter grading.

417. Models in Finance. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Exposure to several statistical techniques used in investment theory, and hands-on experience by applying various models on real stock market data using package stockPortfolio of open source statistical software R. S/U or letter grading.


419. Experimental Design. (4) Lecture, three hours; discussion, one hour. 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 two or more treatments, randomized blocks, factorial design, Latin square designs, fractional factorial designs, response surface designs. S/U or letter grading.

420. Causal Inference in Social Science Practice. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Fundamentals of causal inference. Focus on the concept of treatment effects, potential outcomes, and assignment mechanisms. Topics include counterfactuals, sensitivity analysis, and various methods for causal inference, including experiments, matching, regression, panel methods, difference-in-differences, synthetic control methods, instrumental variable estimation, regression discontinuity designs, and sensitivity analysis. Basic skills for the possibility of applications drawn from various fields including political science, public policy, economics, and sociology. Skills developed apply to any discipline in which investigators seeks 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 required to various ways in which statistical results are 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 already fluent in English and are already proficient in verbal and written communication of scientific results. 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 aspects of teaching college 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.
Students are expected to obtain broad knowledge of diseases treated by surgical means and to understand the pathophysiology of these conditions, the therapy that may be applied, and the anticipated results of treatment. They are also encouraged to learn about the effects of surgical illness on the patient and the patient’s family and environment.

Third-year students participate in one 12-week core clerkship in clinical surgery and are assigned to rotations at a combination of UCLA, Cedars-Sinai Medical Center, Harbor-UCLA, West Los Angeles VA, Olive View-UCLA, Kaiser Permanente, and Santa Monica-UCLA medical centers. Each facility has a special orientation depending on the patient population and the individual staff. During the fourth year students may elect to take additional clinical rotations with increasing responsibilities. 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.
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 rigorous liberal arts framework of the BA degree. The department also offers a Theater minor.

At the graduate level, students in the MFA program develop as artists and are given preprofessional training in the skills of theater, while PhD students engage in critical investigations of performance broadly understood. In conjunction with their theater studies, students also have the opportunity to pursue elective courses in the area of film, digital media, and television, and, schedules allowing, take graduate courses from across UCLA.

For current or specific information about the programs and faculty members, see the department website.

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. Capstone courses vary by area and require individual projects or performances, a major artistic contribution to a theater production, or an individual course of study resulting in a research paper. Through their capstone work, students demonstrate general knowledge and specialized skills, successfully relate their experience in a studio, production, or field-work setting, communicate effectively orally and in writing, and engage with a community of artists and scholars presenting theatrical work.

Learning Outcomes

The Theater major has the following learning outcomes:

- Demonstrated broad knowledge of foundational skills acquired through coursework, including general knowledge of the art form and skills in a specialized area of study
- Successful relation of experience in a studio, production, or fieldwork setting
- Engagement with a community of artists and scholars presenting theatrical work
- Effective oral and written communication

Admission

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

The 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, 174B, 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 (1) acting, (2) design and production, (3) directing, (4) musical theater, or (5) playwriting are expected to complete a number of regularly offered elective courses.

Students who do not select and emphasize 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 the-ater of non-Western cultures.

To enter the minor students must be in good aca-demic standing (minimum 2.0 grade-point aver-age), 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 re-quirements, including the specific requirements for this minor, must be fulfilled within the unit maxi-mum set forth by each student's school or College.

Required Lower-Division Courses (6 to 10 units): Theater 10 and one course from 15, 20, 28A, 28B, 28C, 30.

Required Upper-Division Courses (22 to 27 units):

Theater 150, one course from 102A through 113, and four courses selected from 117, 118A, 118B, 118D, 120A, 120B, 120C, 121, 123, 128A, 130, 136, 138, 139, C146A, C146B, 149, 195.

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 department approval.

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 Graduate Council of the UCLA Academic Senate voted to suspend admissions to the Theater CPhil and PhD degrees effective fall quarter 2014. The Department of Theater offers a Master of Fine Arts (MFA) degree in Theater and Candidate in Phi-losophy (CPhil) and Doctor of Philosophy (PhD) de-grees in Theater and Performance Studies.

Theater

Lower-Division Courses

1A-B-1C. Introduction to Dance for Music The-ater. (1–1–1) Studio, four hours. Designed for 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 coexistence 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, re-fines, and advances work of course 2A, introducing new forms, and delving more deeply into practice of Yang-style tai chi. Courses in performance practice continue emphasize proper form, etiquette, and other values that sustain practice over lifetime. May be repeated once for credit. Letter grading.

3. Aikido. (Studio, two to four hours. Designed for Theater majors. Introduction to basic stance, falls, throws, and principles of 20th-century martial art. Aikido. Courses in performance practice continue empha-size proper form and etiquette. May be repeated twice for credit. Letter grading.

10. Introduction to Theater. (Lecture, three hours: discussion, one hour (when scheduled). Exploration of theater in production, with emphasis on collaborative role of theater artists and active role of audience. Un-derstanding of and access to live theatrical event and enhanced appreciation of value of theater to society; development of critical skills through consideration of representative examples of theatrical production from Europe, America, Asia, and Africa. P/NP or Letter grading.

11. Approaches to Interpretation of Theater and Performance: Global Perspective. (Seminar, four hours. Introduction to basic methods of interpretation in the theater and performance throughout world. Topics illustrated by faculty members and guest speakers, visits to off-campus theaters, and reading from con-temporary plays. Letter grading.

12. Introduction to Performance. (Lecture, two hours: studio, four hours. Investigation of phenomenon of performance and role of performer in theatrical events, 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. (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.


15. Introduction to Directing. (Lecture, two hours: studio, four hours. Investigation of role of director in theatrical production. Preparation and role of director, with emphasis on analysis and interpretation of dramatic work and its realization in production. Letter grading.

16. 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. Aikido. (Studio, three to four hours. Designed for Theater majors. Introduction to basic stance, falls, throws, and principles of 20th-century martial art. Aikido. Courses in performance practice continue emphasize proper form, etiquette, and other values that sustain practice over lifetime. May be repeated once for credit. Letter grading.

20. Acting Fundamentals. (Studio, four hours. Introduc-tion to interpretation of drama through art of actor. Development of individual insights, skills, and disciplines in presentation of dramatic material to audi-ence. P/NP or letter grading.


22A. Musical Literacy for Dancing Actors I. (2) Studio, three to four hours. Introduction to reading and understanding musical notation, musical terminology, and basic to complex rhythm-reading and sight-singing in C major. Letter grading.

22B. Musical Literacy for Dancing Actors II. (2) Studio, three to four hours. Study of basic vocal technique for actor, with emphasis on resonance, range, power, and development of physiological foundation for subsequent training. Letter grading.

24A. Voice in Performance. (2) Studio, three to four hours. Requisite: course 24A. Continuation of course 24A, with greater emphasis on group and/or solo per-formance projects that present targeted vocal and tex-tual challenges. Letter grading.

26. Dramatic Writing. (Studio, three hours. Study and practice of techniques as method of developing balance, poise, and coordina-tion 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 change character develop-ment and to expansion of movement potential. P/NP or letter grading.

From Vaudeville to Standup Comedy. (4) Studio, three to four hours. Exploration of many aspects of comedy, including American vaudeville troupes, acts, and performers as historical base to experience im-portance of rhythm, timing, delivery, speech, and body language in all styles of comedy, to find value of im-provisation/innovation as well as innovative writing skills in all comic forms, to discover how comedy draws from so many art forms, including music/songs, dance, storytelling, clowning, magic, design, and tum-bling; and to become a comedic/essay/comedian in comic performance skills. P/NP or letter grading.

28A-28B. Acting, Voice, and Movement Workshops I, II (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 move-ment skills. Each course may be repeated for max-imum of 12 units. Letter grading.

30. Dramatic Writing. (Studio, three hours. In-tended for Theater majors and other nonmajors. Ex-ploration and development of creative writing skills for one or more of various forms of entertainment media. May be repeated once. Letter grading.


35A-35B-35C. Singing for Musical Theater I, II, III Studio, four to five hours. Exploration of musical lit-eracy and development of singing techniques for mu-sical theater. Basic voice training to explore how voice works, learn to maintain appropriate and consistent voice, and learn to preserve voice health. How to build stamina and range. 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 member of production crew. 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 and laboratory experience in one or more of var-i-ous aspects of production and postproduction prac-tice 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 In-terventions in Theater, Film, and Television. (2 to 4) Tutorial, six to 12 hours. Limited to freshmen/sopho-mores. Internship at various theaters, studios, or en-tertainment organizations accentuating creative con-trIBUTION. Students meet on regular basis with faculty member and provide periodic reports of experience. May be taken for maximum of 4 units. Indi-vidual contract with supervising faculty member re-quired. P/NP grading.

99. 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.
Upper-Division Courses

101A. Global Histories of Theater and Performance. (Lecture, three hours; discussion, one hour. Introduction to historical and theoretical approaches to performance traditions. May be applied toward honors credit for eligible students. Letter grading.)

103A. African American Theater History: Slavery to Mid-1800s. (4) (Same as African American Studies 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 artists in America from slavery to mid-1800s. Letter grading.

103B. African American Theater History: Minstrel Stage to Rise of American Musical. (4) (Same as African American Studies M103B.) 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.

103C. Origins and Evolution of Chicano Theater. (5) (Same as Chicana and Chicano Studies 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.


104A. History of Design Décor Part I: Architecture and Decor—Antiquity to Early Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of post-Renaissance architectural and interior decor 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.


118A. Creative Dramatics. (4) Lecture/laboratory, four hours. Studies of principles and procedures of improvisational approach to drama as done with 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 interrelationships of arts 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. Examines racial stereotypes, sexual harassment, gender discrimination, and other issues that divide members of campus community, as well as issues that divide campus from Los Angeles community. Development of critical thinking and problem-solving, and awareness of major social and political awareness of problems and ideas fundamental to intellectual development, exercises and games nurture skills and attributes useful in facilitating discussions between individual and group participants. Use of techniques of sensory awareness, movement, pantomime, improvisation, and characterization. Letter grading.

118D. ArtsBridge Teaching Practicum. (4) Lecture, four hours. Requisites: courses 118A, 118B. Development of K-12 teaching materials to integrate theater with specific core curricula. Collaboration with classroom teachers is subject to approval of Language arts, science, history, mathematics, and social sciences are possible curricular areas. Development 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 thoroughly documented final project evaluated by ArtsBridge student, classroom teacher, and UCLA faculty members. Letter grading.

120A-120B. Acting and Performance in Film. (5–5) 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. 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. P/NP or 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.

C122. Character Development through Makeup and Hair Design. (2) Formerly numbered 122. Studio, four hours. Examination of importance of makeup and hair design in film. History and overview of hair and makeup in fashion and motion pictures. Collaboration of makeup artists and hairstylists with costume designer and production designer, director to conceptualize people in script. Exploration of makeup artist 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 222. Letter grading.


124A. Intermediate Voice and Speech and Vocal Ener in Classical Text. (2) Studio, three to four hours. Requisite: courses 24A, 24B, and 124A, or 29A, 29B, and 124A. Working with contemporary texts to learn all simple vowels (lip, tongue, open, neutral) and to communicate sound consistently forward and connected through whole body. Creation of complete warm-up for theatrical production using these methods. Letter grading.

124B. Intermediate Voice and Speech II: Creating Complete Warm-Up for Theatrical Productions. (2) Studio, three to four hours. Requisites: courses 24A, 24B, and 124A, or 29A, 29B, and 124A. Working with contemporary texts to learn all simple vowels (lip, tongue, open, neutral) and to communicate sound consistently forward and connected through whole body. Creation of complete warm-up for theatrical production using these methods. Letter grading.


124E-124F. Voice and Speech III. (1–1) Studio, three to four hours. Development of voice and speech techniques for stage. Letter grading.

125A. Alexander Technique. (2) Studio, three to four hours. Requisite: course 25 or 28C. Study and practice in Alexander technique as method of developing balance, poise, and coordination of body and mind. Exploration of use of rhythm to expand movement potential of actors and use of visual arts and animal studies for character development. Letter grading.

125B. Physical Awareness and Combat for Theater, Film, and Television. (2) Studio, three to four hours. Requisite: course 125B. Combat training for actors in theater, film, and television. Concentration on warm-up, relaxation, control, stunts, gymnastics, martial arts, and use of weapons. Letter grading.

125C. Physical Awareness and Combat for Thea ter, Film, and Television II. (1) Studio, three to four hours. Requisite: course 125B. Combat training for actors in theater, film, and television. Concentration on warm-up, relaxation, control, stunts, gymnastics, martial arts, and use of weapons. Letter grading.

125D-125E. Movement and Combat III. (1–1) Studio, three to four hours. Physical awareness for actors, concentrating on warming up body, relaxation, control, stunts, gymnastics, martial arts, and use of weapons. Letter grading.


126A. Acting, Voice, and Movement Workshops II. (2) Studio, four to six hours. Study of advanced acting technique, scene study, and development of voice and movement skills. May be repeated for maximum of 12 units. Letter grading.

CM129. Contemporary Topics in Theater, Film, and Television. (2) Same as Film and Television CM129. Lecture, two hours; screenings, two hours. Limited to senior/junior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of individual contributions in collaborative effort; examination of distinctiveness and interrelations among these and individual units includes participation of leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently scheduled with course CM229. P/NP or letter grading.


C133A. Script Development Workshops. (4 to 8) Lecture, three hours; studio, to be arranged. Guided process of script development, with emphasis on communication, artistic growth, and professional process. May be taken for maximum of 8 units. Concurrently scheduled with course C433A. Letter grading.


134G. Dance for Musical Theater: Ballet. (1) Studio, three to four hours. Designed for Theater majors. Intermediate level course. Development of skills and furthering of concepts of ballet technique. Emphasis on development of proper placement, building strength and flexibility, higher level of techniques, and awareness of musicality and artistic expression. May be repeated five times for credit. Letter grading.

135A. Musical Theater Vocal Styles: Gospel. (1) Studio, three hours. Designed for Theater majors. Part of five-course series of musical theater performance techniques in which students explore and master variety of vocal styles and/or acting approaches necessary to be competitive in field of professional musical theater. Exploration of strategies and techniques for singing gospel and rhythm and blues music, with solo and group improvisation as foundation. Letter grading.


135C. Musical Theater Vocal Styles: Legitimate/ Operetta. (1) Studio, three hours. Designed for Theater majors. Part of five-course series of musical theater performance techniques in which students explore and master variety of vocal styles and/or acting approaches necessary to be competitive in field of professional musical theater. Exploration of strategies for...
and techniques for singing legitimate operatic music, with emphasis on vocal and body strengthening exercises and solo song coaching. Letter grading.

135D. Musical Theater Vocal Styles: Rock (1)
Study, three hours. Designed for Theater majors. Part of five-course series of musical theater performance techniques. Focuses on principles and practice essential to effective theater variety of vocal styles and/or acting approaches necessary to be competitive in field of professional musical theater. Exploration of strategies and techniques for singing roles requiring rock and blues vocal and body strengthening exercises and solo song coaching. Letter grading.

135E. Musical Theater: Creating and Playing Character from Musical Theater. Exploration of strategies and techniques for creating and playing character from musical theater. Three hours. Designed for Theater majors. Exploration of text and lyrics of musical theater piece, song cycle, or specific composer’s work from actors’ point of view. Students develop skills in research, character observation, and improvisation. Emphasis on creating and sustaining character through singing. Letter grading.

135F. Singing: Individual Instruction. (1)
Study, one hour. Requires: course 35B. Designed to advance proper vocal technique in which students develop a technique suitable for performance and for vocal health maintenance. Lab. Concurrently scheduled with course 135A. Letter grading.

136. Advanced Acting for Stage. (4)
Study, four hours. Requires: course 123. Study and practice of art of acting through progression to more advanced acting problems. May be repeated twice for credit. Concurrently scheduled with course 137A. Letter grading.

137A. Stage Movement and Voice (1)
Study, three hours. Study and practice on breath support, vowel shape, range expression, and overall mastery of vocal instrument. May be repeated four times for credit. Letter grading.

137B. Studio Acting. (4)
Study, four hours. Development of visual communication skills through acting. Exploration of practical techniques for the student's own project production. May be repeated once for credit. Letter grading.

147A. Drafting. (4)
Study, four hours. Development of visual communication skills through acting. Exploration of practical techniques for the student's own project production. May be repeated once for credit. Letter grading.

14A. Lighting Design. (4)
Lecture, four hours. Lecture and studio, four hours. Study of lighting design for proscenium, thrust, and arena configurations, music theater, and concert lighting. May be repeated once for credit. Concurrently scheduled with course C442B. Letter grading.

14B. Advanced Scene Design. (4)
Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater set designs, with emphasis on analysis of script and concept, development of design concept, and X-ray. May be repeated once for credit. Concurrently scheduled with courses C444B, Letter grading.

14C. Advanced Sound Design. (4)
Lecture, four hours; laboratory, four hours. Study and practice in preparation and recording of theater sound designs, with emphasis on analysis of script and concept, developmental design concept, and mix-down of multitrack recordings; preparation of sound tracks and sound reinforcement in theater. Letter grading.

14D. Advanced Vocal and Movement Design. (4)
Lecture, four hours. Exploration of design techniques and use of movement and vocal techniques to structure and realize a concept. May be repeated once for credit. Concurrently scheduled with courses C444C. Letter grading.

14E. Advanced Art and Process of Entertainment Design. (4)
Lecture, four hours. 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. May be repeated twice for credit. Concurrently scheduled with course C446A. Letter grading.

14F. Advanced Costume and Set Design. (4)
Lecture, four hours. Exploration of design techniques and use of movement and vocal techniques to structure and realize a concept. May be repeated once for credit. Concurrently scheduled with course C446B. Letter grading.

14G. Special Courses in Design and Technical Theater. (4)
Lecture, three hours. Group study of selected subjects in design and technical theater. May be repeated twice for credit. P/NP or letter grading.

14H. Introduction to Design. (5)
Lecture, three hours. Group study of selected subjects in design and technical theater. May be repeated twice for credit. P/NP or letter grading.

14I. Production Design for Film, Television, and New Media. (4)
Lecture/studio, four hours. Study of role of designer in the design of live performances for stage, television, and video. May be repeated twice for credit. Concurrently scheduled with course C453D. Letter grading.

14J. Designing the Professional Costume Design Project. (4)
Lecture/studio, four hours. Design of professional costume design project. May be repeated twice for credit. Letter grading.

14K. History of Costume Design. (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.

14L. Practice of Costume Design for Film Production. (4)
Lecture, study, three hours. Introduction to costume design as tool for storytelling, exploring integration of costume design and filmmaking process and what it takes to bring characters to life. Skills needed to effectively costume short narrative films, including script breakdown, collaboration with directors, cinematographers, and actors, and how to manage production challenges. Concurrently scheduled with course C453F. Letter grading.

14M. Sound Design. (4)
Lecture, study, four hours. Focus on professional sound design for narrative and non-narrative film projects. 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 MIDI data, and design techniques for musical theater. May be repeated once for credit. Concurrently scheduled with course C154D. Lecture grading.

C154C. Sound for Film and Television. (4) Lecture/ studio, four hours. Study of current professional sound recording, re-recording, mixing, and synchronization practices for film and television. Concurrently scheduled with course C154D. Lecture grading.

C155A. Graphic Representation of Design: Perspective Drawing. (2) 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, form light, shade, and textures. Concurrently scheduled with courses C455A. Letter grading.

C155B. Graphic Representation of Design: Multi-media Rendering. (2) 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 study of a wide variety of art media, including watercolor, markers, pastel, and collage rendering. May be repeated twice for credit. Concurrently scheduled with courses C455B. Lecture grading.

C155C. Graphic Representation of Design: Digital Rendering. (2) Studio, four hours. Study and practice in rendering costumes, lighting, and scenic elements with combination of hand and digital rendering techniques. Focuses on rendering from life, enhancing final renderings 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. Lecture grading.

C155D. 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 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. (2) Studio, four hours. Study and practice in drawing the human figure from life, both with and without models. Study of human form in space. Concurrently scheduled with courses C455E. Letter grading.

C155F. Graphic Representation of Design: Costume. (2) Lecture/ studio, four hours. Study and practice in rendering theatrical costumes, with emphasis on figure, clothing, and fabrics. Concurrently scheduled with courses C455F. Lecture grading.

C156A. 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 C456A. Letter grading.


C160A. Directing for Stage. (4) Lecture/studio, four hours. Requisite: course 15. Intensive development of primary directing skills and process, including text analysis and exploration of craft fundamentals as basis for director/actor communication and effective staging. Students direct specific scenes plays under laboratory conditions. Letter grading.

C163B. Directing for Stage. (4) Lecture/studio, four hours. Requisite: course 15. Further development of craft elements of directorial method, with additional emphasis on further development of director/actor communication. Students direct scenes under laboratory conditions in alternative stage configurations. Letter grading.


C163D. 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 plays by students directing the projects. May be repeated once for credit. Concurrently scheduled with course C286D. Letter grading.

C167A. Career Preparation for Actor. (2) Lecture/studio, three hours. Requisites: courses 134A through 135F. Audition preparation for single actor, pairing with professional actors to prepare for and successfully execute professional musical theater auditions. Letter grading.

C170. Design and Production Project. (4) Laboratory, eight hours. Requisites: courses 14A, 14B, 14C. Experiential study of stage management and administrative aspects of production: preparation and realization of scenic, lighting, costume, or sound designs, or stage management in production. May be repeated once for credit. Letter grading.

C171A. 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.

C171B. Advanced Theater Laboratory. (1 to 4) Laboratory, to be arranged. Creative participation in realization of production elements related to public presentation of departmental production. May be taken for maximum of 4 units. P/NP or letter grading.

C172. 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 credit for a maximum of 24 units. Letter grading.

C173A. Design Assignment for Costume 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.

C173B. Production Design Assignment: Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as designer, including preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.


C174B. Project in Stage Management. (3) Studio, nine hours. Requisite: course 174A. Laboratory experience in professional duties of assistant stage manager, including participation as assistant stage manager in preproduction, rehearsal, and performance phases of productions. May be repeated once for credit. Letter grading.

C174C. 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 preproduction, rehearsal, and performance phases of productions. Problems of unions, auditions, organization, scheduling, and responsibilities of lengthy 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, preshow setup, performance report, 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.


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. Preparatory work in conceptual or creative development of ideas which may be pursued as honors thesis. 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.

182A. Role of Producer in Professional Theater. (2) Lecture, three hours. Study of structural governing economic and artistic decision-making processes in professional theater of America. Concurrently scheduled with course C285A. P/NP or letter grading.

182B. Role of Management in Educational and Community Theater. (2) Lecture, three hours. Study of structure governing economic and artistic decision-making processes in professional theater of America. Concurrently scheduled with course C285B. P/NP or letter grading.


185A. Seminar in Contemporary American Dramatists. (2 to 12) Seminar. Three to six hours. Designed for graduate students. May be repeated for credit. Letter grading.

185C. Practicum in Dramaturgy. (2 to 12) Laboratory, to be arranged. Requisites: courses 208A, 208B. Demonstration of competence in practice of dramaturgy through completion of approved dramaturgical assignment. May be repeated for times for credit. S/U or letter grading.


206. Themes in World Theater and Drama. (5) Seminar, four hours. Designed for honors students. Selection of topics in world theater, drama, production, and/or architecture organized on thematic basis. May be repeated four times for credit. S/U or letter grading.

208A. Seminar in Contemporary American Plays. (2) Seminar, two hours. Study of contemporary American plays leading to guided completion of student-written one-act plays. 208B. Seminar in Contemporary American Plays. (4 to 8 each) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. May be repeated twice for credit. S/U or letter grading.

211. Seminar in Contemporary American Dramatists. (5) Seminar, three hours. Designed for graduate students. May be repeated four times for credit. S/U or letter grading.

216A. Approaches to Representation. (5) Lecture, three hours; laboratory, one hour. Overview of strategies, and theoretical concept and applied research to presentational and postmodern deconstructions 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. Review of key theories, methods, debates, and performance texts of indentificatory structure 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 theater students. Presentation and discussion of issues informing and affecting contemporary theater. May be repeated four times for credit. S/U or letter grading.

221. Introduction to Performance Studies. (5) Seminar, three hours. Investigation of performance as sustained practice in traditional disciplines such as theater, music, and dance and as lens to focus thinking about human experience and interpretation of literature, cultural anthropology, linguistics, education, and law. Emphasis on establishing interdisciplinary dialogue across many fields. Letter grading.

222. Character Development through Makeup and Hair Design. (2) Studio, four hours. Examination of importance of makeup and hair design in film, history and overview of hair and makeup in fashion and motion pictures. Collaboration of make-up artists and hairstylists with costume designer, set designer, and director to conceptualize people in script. Exploration of make-up artist and hairstylist roles in current film, television, and theater productions and skills needed to create hair for film and television productions. Concurrently scheduled with course C122. Letter grading.

CM229. Contemporary Topics in Theater, Film, and Television. (2 to 4 each) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of contemporary topics in film, television, and with consideration of writing, direction, production, and performance. May be repeated twice for credit. S/U or letter grading.

230A-230B-230C. Writing for Contemporary Theater. (4 to 8 each) Lecture, two hours. Enforced corequisite: Honors Collegium 101E. Tutorial, to be arranged. Enforced requisite: course 147A. Designing, developing, and producing literary work leading to guided completion of student-written full-length play. 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 comic comedy, docudrama, experimental theater, writing for alternative audiences, or children’s theater. May be repeated twice for credit. Letter grading.

232. Manuscript Analysis. (4) Lecture, three hours. Enforced requisite: graduate students. Critical and constructivist 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, utilization of production techniques. May be repeated once for credit. Letter grading.

243A-243B-243C. Scenic Design. (4–4–4) Studio, four hours. Advanced study and practice in scenic design for theater. Imaginative 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. S/U or letter grading.

244A. Advanced Theater Production. (2 to 8) Studio, 12 to 24 hours. Designed for graduate students. Creative participation in preparation and presentation of theatrical production. May be taken for maximum of 8 units. Letter grading.

246A-246B-246C. History of Costume. (4–4–4) Lecture/studio, four hours. Designed for graduate students. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical context for costumes for theater, film, and television. Historic survey and in-depth exploration of selected periods, with study of influences of diverse cultures. Letter grading.

246D. History of Costume Design. (4) Lecture, four hours. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes.
for theater, film, and television. Historic survey and in-depth exploration of selected periods, with study of influences of diverse cultures. Letter grading.

260. Directing I. (4) Lecture, four hours; studio, 24 hours. Designed for graduate students. Development of directorial skills of analysis, planning, staging, and criticism through medium of written preparations and directing of scenes. Letter grading.

261. Directing Post-Realist Drama. (4) Lecture, four hours; studio, 30 hours. Designed for graduate students. Emphasis in direction of post-realist plays through interpretation and laboratory scene work. Letter grading.

262. Directing II. (4) Studio, six hours. Practical exploration for generating original performances and composing works for stage. Introduction to processes of key contemporary artists across globe. Letter grading.

263. Production Project in Direction for Stage. (2 to 8) Discussion, one hour; studio, 12 to 30 hours. Designed for graduate students. Direction of dramatic work, with discussion and critique of work in progress. May be repeated for maximum of 20 units. Letter grading.

C283D. Directing Project for Stage. (2) Discussion, three hours; laboratory, four to eight hours. Requisites: courses 163A, 163B, 163C. Application of stage direction techniques in production of short play or project through direction of a one-act play or project. May be repeated once for credit. Concurrently scheduled with course C163D. Letter grading.


267. Theoretical Conceptualization. (4) Lecture, four hours. Examination of process of conceptualization in dramatic production; centrality of the directorial conceptualization in interpretation of dramatic text; exploration of range of techniques in different dramatic spaces and options in design components. Consideration of visual arts and music as sources of stimulus for theatrical conceptualization, with focus on collaborative development of design. Letter grading.

272. 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.

C285A. Role of Producer in Professional Theater. (2) Lecture, three hours. Designed for graduate students. Introduction to various aspects of the theatrical production environment, including business fundamentals and technical aspects of production and performance. Letter grading.

C285B. Role of Management in Educational and Community Theater. (2) Lecture, three hours. Designed for graduate students. Study of artistic, social, and economic criteria in administration of educational and community theater. Concurrently scheduled with course C185B. S/U or letter grading.

C285C. Role of Management in Professional Theater. (2) Lecture, three hours. Designed for graduate students. Study of artistic, social, and economic criteria in administration of educational and community theater. Concurrently scheduled with course C185B. S/U or letter grading.

298A-298B. Special Studies in Theater Arts. (2 or 4 each) Lecture/discussion, two or four hours. Designed for graduate students. Seminar study of problems in various aspects of theater arts. Each course may be repeated once for credit. 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.

C404E. History of Design Decór Part I: Architecture and Decor—Antiquity to Early Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of pre-Renaissance architectural and interior decor 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 C104E. Letter grading.

C404F. History of Design Decór Part II: Architecture and Decor—Industrial Revolution to 21st Century. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of post-Renaissance architectural and interior decor 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.


280B. Advanced Acting I. (4 to 8) Studio, six to 12 hours. Fundamental training in interpretation and improvisation techniques for the stage. May be repeated for credit. Concurrently scheduled with course C420B. Letter grading.

281B. Advanced Acting II. (4 to 8) Studio, six to 12 hours. In-depth exploration of selected subcategories of acting, with greater emphasis on the interpretation of selected plays and characters. May be repeated for credit. Concurrently scheduled with course C421B. Letter grading.

282B. Advanced Acting III. (4 to 8) Studio, six to 12 hours. In-depth exploration of selected subcategories of acting, with greater emphasis on the interpretation of selected plays and characters. May be repeated for credit. Concurrently scheduled with course C422B. Letter grading.

284A. Voice in Action. (1) Studio, three hours. Requisite: course 242A. Physiological exploration 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.


284F. 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 and physical flexibility and techniques designed to keep one’s instrument safe while effectively communicating character. Letter grading.

284G. Advanced Vocal Dynamics. (1) Studio, three hours. Extended range, resonance, and vocal power in support of clear, forward speech. Further fluency with vocal resonance in relation to acoustic properties of performance spaces. Using vivid vocal engagement to support dynamic expression of demanding texts, with attention to varieties of tempo, volume, pitch, resonance, range, etc. Letter grading.

284H. Classical Vocal Comedy and Performance. (1) Studio, two hours. Advanced exploration of the vocal possibilities of the dramatic characters. Special focus on Molère’s verse comedies. Letter grading.

284I. Phonetics, Dialects, and Accents. (1) Studio, three hours. Use of appropriate pronunciation to enhance actor’s ability to create character using dialect and accents. Culminating dialect presentation project required. Letter grading.
42A. Acting for Microphone. (2) Studio, four to six hours. Techniques including text analysis and character work in art and craft of acting for microphone. Letter grading.

42B. Advanced Movement I. (2 or 4) Studio/laboratory, three to six hours. Discovery of body’s unique language through exercises designed to explore and expand the creative and expressive potential of the actor. Letter grading.

42C. Advanced Movement II. (2 or 4 each) Studio/laboratory, three to six hours. Discovery of body’s unique language through exercises designed to explore and expand the creative and expressive potential of the actor. Letter grading.

42D. Advanced Training Intensive. (2) Studio, 12 to 15 hours per week for four weeks. Advanced training class, challenging body’s core, energy, and concentration needed for performance. Deepening awareness of personal, emotional, and artistic expression and action. Letter grading.

42E. Advanced Conditioning and Combat for Thea- ter, Film, and Television. (2) Studio, six hours. Body conditioning and combat will focus on fundamental martial arts and body awareness, including redirection of energy, stunts, gymnastics, martial arts, use of weapons, and integration of skills in performance contexts. Letter grading.

42F. Advanced Technical Computing. (2 or 4) Studio/laboratory, three to six hours. Presentation of more complete picture of stage movement and its relationship to the-ater, music, and dance. Advancement of physical training of all major body parts 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.

42G. Advanced Movement III. (2 or 4 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, and dance. Letter grading.

42H. 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 system 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.

43A-430C. Studies in Designing. (4 to 8 each) Lecture, three hours. Limited to MFA playwriting program students. Guided completion of full-length scripts for stage. S/U or letter grading.

431. Special Topics in Playwriting. (4) Discussion, three hours. Designed for MFA playwriting program students. Analysis and practice of varied aspects of playwright’s art. Variable content selected from topics such as comedy writing, documentary, writing for alternative audiences, writing for children’s theater, or improvisational techniques. May be repeated twice for credit. S/U or letter grading.


433A. Script Development Workshops. (4 to 8) Lecture, three hours; studio, four to 24 hours. Designed for graduate students. Guided process of script development, with emphasis on communica- tion, artistic and technical process. May be taken for maximum of 8 units. Concurrently scheduled with course C133A. Letter grading.

433B. Script Development Workshop. (4 to 8) (Formerly numbered C433B.) Lecture, three hours; studio, four to 24 hours. Designed for graduate students. Guided process of script development, with emphasis on communication, artistic and technical process. May be taken for maximum of 8 units. Concurrently scheduled with course C133A. Letter grading.

434A-434B. Advanced Scenic Design. (4 each) Studio, four hours. Advanced study and practice of scenic design for theater. Emphasis on developing design needs in preparation for professional work. Each course may be repeated once for credit. Letter grading.


436A. Sound Design. (4) Lecture/studio, four hours. Design of sound for live and recorded sound; mix-down of multitrack recordings; preparation of personal style and business plan. Letter grading.


438A-438B. Advanced Programming for Entertainment Design. (4) Lecture, three hours. Study and practice in object-based programming using MAX/MSP program- ming language to control sound and video. May be re- peated once for credit. Concurrently scheduled with course C140A. Letter grading.

438C. Advanced Projects in Programming for En- tertainment Design. (4) Lecture, three hours. Advanced study and practice in object-based programming to control sound and video. May be repeated once for credit. Concurrently scheduled with course C140C. Letter grading.

439A. Lighting Design. (4) Lecture/studio, four hours. Study and practice in lighting design for actors, emphasizing tex- tual and character analysis from 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 once for credit. Letter grading.

439B. 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- thumus theaters, museums, lighting patterns, and moving scenery. May be repeated once for credit. Letter grading.

439C. Lighting Design. (4) Lecture/studio, four hours. Study and practice in design of lighting for actors, emphasizing tex- tual analysis of script and for lighting designer. May be repeated once for credit. Letter grading.

440A. Sound Mixing. (4) Lecture, four hours. Focus on musical transcription of work, emphasis on total instrument. Development of flexible actor with range, expression, and confidence physically. Awakening of imagination while exploring worlds of ritual, animal, conceptual, and modern dance movements. Letter grading.

440B. Advanced Programming for Entertainment Design. (4) Lecture, three hours. Study and practice in object-based programming using MAX/MSP program- ming language to control sound and video. May be re- peated once for credit. Concurrently scheduled with course C140A. Letter grading.

440C. Advanced Projects in Programming for En- tertainment Design. (4) Lecture, three hours. Advanced study and practice in 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 design of lighting for actors, emphasizing tex- tual analysis of script and for lighting designer. May be repeated once for credit. Letter grading.

441B. Lighting Design. (4) Lecture/studio, four hours. Study and practice in design of lighting for actors, emphasizing tex- tual analysis of script and for lighting designer. May be repeated once for credit. Letter grading.

441C. Lighting Design. (4) Lecture/studio, four hours. Study and practice in design of lighting for actors, emphasizing tex- tual analysis of script and for lighting designer. May be repeated once for credit. Letter grading.

441D. Scenic Projection and Media Techniques. (4) Lecture/studio, four hours. Study and practice in design of scenic projection and media techniques, with emphasis on analysis, design, and execution of theatrical projection and photog- raphic 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. Emphasis on developing design needs in preparation for professional work. 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 imagination as impetus for design, text analysis, meta- phor, and conceptualization. Investigation of design research process, composition, style, leading to visual presentation of design. May be repeated twice for credit. S/U or letter grading.

444A. Advanced Sound Design. (4) Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to performance environments, development of associated writing, production, mixing, pro- cessing, automation, and reproduction of dialogue, ef- fects, and music tracks for theater sound design. May be repeated once for credit. Concurrently scheduled with courses C144A. Letter grading.

444B. Advanced Sound Design. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound tracks and sound effects. May be repeated once for credit. Concurrently scheduled with courses C144B. Letter grading.

444C. Advanced Sound Design. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in processing and mixing of live and recorded sound; mix-down of multitrack recordings; preparation of personal style and business plan. May be repeated once for credit. Concurrently scheduled with courses C144B. Letter grading.

445A-445B-445C. Production Design for Film, Televi- sion, 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 effect of differing media on design choices, role of production designers and art direc- tor, and design for single- and multi-camera pro- duction. Each course may be repeated once for credit. Letter grading.

445A-446A-C145B. Letter grading. C446A. 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. C446B. Prototype development; two to five proposals to be more completely defined and developed. Students form collaborative teams for further conceptual develop- ment of their project proposals. May be repeated once for credit.

446A. Costume Design for Film, Televi- sion, and Entertainment Media. (4) Lecture/ studio, four hours. Study and practice in design of costumes for live and virtual characters in film, television, and entertainment media, including effect of dif- fering media on design choices. Courses 444A and 444B may be repeated once for credit; course 444C may be repeated twice for credit. Letter grading.

446D. Deconstructing Glamour. (4) Lecture, three hours; screenings, two hours. Exploration of integra- tion of costume design into filmmaking process and il- lumination of work required to bring characters from written page to life. Letter grading.

449A. Design Thesis Preparation. (4) Lecture/studio, four hours. Series of group design projects that pre- pare design students for thesis examination. In Prog- ress grading (credit to be given on completion of courses 449B and 449C).

449B. Design Thesis Preparation. (4) Lecture/ studio, four hours. Series of group design projects that pre- pare design students for thesis examination. In Prog- ress grading (credit to be given on completion of courses 449B and 449C).

449C. Design Thesis Project. (4) Formerly num- bered 449C. Lecture/studio, four hours. Series of group design projects that serve as comprehensive exam- ination for MFA degree in entertainment design. Re- view and evaluation of projects by design faculty members from all areas of curriculum. Letter grading.

450A. Design Thesis Project. (4) Lecture, four hours. Imagination as impetus for design, text anal- ysis, metaphor, and conceptualization. Investigation of design research process, composition, style, leading to visual presentation of design. May be repeated twice for credit. S/U or letter grading.
leading to visual presentation of design. May be repeated once for credit. Concurrently scheduled with course C151A, Letter grading.

C451B. Scenic Design for Theater. (4) Lecture/studio, four hours. Study of scenic design for prosce- nuim, thrust, and arena configurations, multiset production, and costume design. May be repeated twice for credit. Concurrently scheduled with course C151B, Letter grading.

C451C. Production Design for Film, Television, and Video. (4) Lecture/studio, four hours. Study of role of art director, scenic design for single-camera and multi-camera production, and set decoration. May be repeated once for credit. Concurrently scheduled with course C151C, Letter grading.

C452A. 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.

C452B. Lighting Design for Theater. (4) Lecture/studio, four hours. Study of lighting design for proscenium, thrust, arena configurations, multiset production, and concert lighting. May be repeated once for credit. Concurrently scheduled with course C152B, Letter grading.


C452D. 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.

C453A. Costume Design. (4) Lecture/studio, four hours. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design as a process, composition, and style leading to visual presentation of design. May be repeated twice for credit. Concurrently scheduled with course C153A, Letter grading.

C453B. 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.

C453C. Costume Design for Film and Television. (4) Lecture/studio, four hours. Study of current professional costume design and wardrobe 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.

C453D. 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 costuming sets. Students are expected to design model 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; 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 design and contribution of costume design to cinematic storytelling. Concurrently scheduled with course C153E, Letter grading.

C453F. Practice of Costume Design for Film Pro- ductions. (4) Lecture, three hours. Introduction to costuming theatrical costumes, storyboarding, and costume design research process, composition, and style leading to visual presentation of design. May be repeated once for credit. 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, editing, and creating soundscapes. 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, equaliza- tion, and microphone placement for theater sound reinforcement. Study of creation of sound effects, control of MIDI data, and design techniques for mu- sical theater. May be repeated 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, re-recording, mixing, and synchronization practices for film and television. Concurrently scheduled with course C154C. Graduate students expected to produce designs demonstrating higher level of pro- ficiency and skill. Letter grading.

C455A. Graphic Representation of Design: Per- spective Drawing. (2) 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, form light, shade, and textures. Graduate students expected to produce drawings demonstrating higher level of proficiency and skill. Concurrently scheduled with courses C155A, Letter grading.

C455B. Graphic Representation of Design: Multi- media Rendering. (2) Studio, four hours. Study and practice of multimedia rendering techniques as they relate to representation, and conceptualizing costume renderings, with focus on human form in space. Weekly demonstrations of wide variety of art media, including watercolor, markers, pastel, and collage ren- dering. May be repeated twice for credit. Concurrently scheduled with courses C155B, Letter grading.

C455C. Graphic Representation of Design: Digital Rendering. (2) Studio, four hours. Study and practice in rendering costumes, lighting, and scenic elements of design to cinematic storytelling. Coverage of rendering from life, enhancing final rendering with variety of computer-assisted for- mats 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. Requisites: course 147A or 147B. Study of model for representation of scenic designs from initial working prototypes to fin- ished color models. Use of wide variety of materials and techniques for execution of model. Graduate stu- dents 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. Graphic Representation of Design: Cos- tume Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study of techniques for ren- dering 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. Requii- site: course 147A or 147B. Study of scenic painting techniques and materials and their realization of color and elevation. May be repeated once for credit. Concurrently scheduled with courses C155G, Letter grading.

C455A. Selected Topics in Graphic Representation of Design. (2) Studio, six hours. Study of selected subjects in techniques for interpretation of de- sign for theater. May be repeated once for credit. Concur- rently scheduled with courses C155A, Letter grading.

C456A. Introduction to Computer-Assisted Draft- ing. (4) Studio, four hours. Requisite: course 147A. In- vestigation 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. In- troduction to costume drafting as tool for interpretation of one renowned artwork and as intrinsic element of art history to gain expertise in costume and pattern making, while creating half-scale costume inspired by masterwork and to gain familiarity with artist’s life and social milieu. Letter grading.

C458A. Scenic Design Technology. (4) Lecture/ studio, four hours. Requisites: courses 14A, 14B, 14C. Investigation of materials, six hours. Study of techniques for realization of scenic designs for theater, film, and tele- vision. Study of advanced techniques and materials
for construction, finishing, and rigging of scenery and properties. Concurrently scheduled with course C158A. Letter grading.


459A-459B. Directing for Theater, Film, and Television. (4–4–4) Limited to graduate theater students. Analysis and exploration, with specific scenic, of differences and many similarities in rectorial approach to same literary material in three media. S/U or letter grading.


462. Advanced Directing. (8 or 12) Studio, 12 or 30 hours. Designed for graduate students. Advanced problems in directing, play, film, 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 concep- tualization and preparation of dramatic work. Letter grading.

465. Production Project in Direction for Film and Television. (12 units) Lecture/studio, 4 hours. Directed for graduate students. Preparation of component of film or television project. May be repeated for maximum of 24 units. Letter grading.

466. Production Practice in Theater, Film, and Digital Media. (4 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 preparation and execution of designs for theater, film, video, and related entertainment forms. As contrib- uting artistic member of design team, creative responsi- bilities include designer, technical supervisor, or production manager. May be repeated for maximum of 16 units. Letter grading.

475A. Graduate Design Portfolio Project: Scenic Design. (4) Lecture, four hours; studio, four to eight hours. Preparation: at least six master scenic design courses. Preparation of complete designs and draw- ings for theatrical, film, operatic, and theatrical pro- ductions and assembling of design portfolio and résumé. Information about industry demands and pro- tocol for portfolio presentation and review, with projects prepared under guidance of respective de- sign faculty adviser. Letter grading.

475B. Graduate Design Portfolio Project: Lighting Design. (4) Lecture, four hours; studio, four to eight hours. Preparation: at least six master lighting design courses. Preparation of complete designs and draw- ings for theatrical, film, operatic, and theatrical pro- ductions and assembling of design portfolio and résumé. Information about industry demands and pro- tocol for portfolio presentation and review, with projects prepared under guidance of respective de- sign faculty adviser. Letter grading.

475C. Graduate Design Portfolio Project: Costume Design. (4) Lecture, four hours; studio, four to eight hours. Preparation: at least six master costume design courses. Preparation of complete designs and draw- ings for theatrical, film, operatic, and theatrical pro- ductions in directing for theater, film, and television. Information about industry demands and pro- tocol for portfolio presentation and review, with projects prepared under guidance of respective de- sign faculty adviser. Letter grading.

495A-495B-495C. Practicum and Practice in Teaching Theater. (2–2–2) 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 of PhD students who have responsibility to assist in teaching under- graduate 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. Des- signed for advanced MFA students. Internship at vari- ous film, television, or theater facilities acquainting 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 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. 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 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. 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 stu- dents. 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.

William I. Newman, PhD (Earth, Planetary, and Space Sciences; Mathematics; Physics and Astronomy)

Scope and Objectives

Available to all undergraduate students, the Univer- sity 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 in- troduce students to the research university and aca- demic culture of UCLA. Beyond addressing themes of academic success, the courses also introduce students to the unique opportunities and experi- ences available at a large research university. For more information, contact Marian Gabra.

University Studies

Lower-Division Courses

10A. ACE UCLA | Critical Strategies to Achieve Undergraduate Excellence for Incoming Freshman. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10B, 10C, or former course 10. Designed to assist first-year stu- dents in making successful transition to UCLA by fo- cuising on academic, social, financial, and emotional aspects of transition. Study of research university’s history, mis- sion, rigors, expectations of students, and pedagog- ical implications. Cultivation of formal space on campus where UCLA students learn to engage both diplomatically and collaboratively with diverse com- munity of scholars; to comprehend and apply theoret- ical 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 scholar- ship. 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 to assist international students in making successful transition to UCLA and to U.S. 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 develop- ment; 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 Life Science Students. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10B, 10D, or former course 10. Designed to assist life sciences ma- jors in making successful transition to UCLA by fo- cusing on academic, social, and emotional aspects of transition. Study of research university’s history, mis- sion, rigors, expectations of students, and pedagog- ical 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 develop- ment; 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.

University Studies

College of Letters and Science

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University Studies
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Muriel C. McClendon, PhD, Chair

Faculty Committee

Faculty Committee
Robert A. Gurval, PhD (Classics)
Frank A. Laski, PhD (Molecular, Cell, and Developmental Biology)
Elizabeth A. Marchant, MA Comparative Literature, Gender Studies
Muriel C. McClendon, PhD (History)
10D. ACE UCLA | Critical Strategies to Achieve Undergraduate Excellence for Incoming Transfer Students. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10B, 10C, or former course 10. Designed to assist first-year transfer students in making successful transition to UCLA by focusing on academic, social, and emotional aspects of transition. Study of research university’s history, mission, rigor, 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 First-Generation Students. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10B, 10C, 10D, 10E, 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, rigor, expectations of students, and pedagogical implications. Cultivation of formal space on campus where UCLA students learn to engage 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.

10F. 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, 10E, or former course 10. Designed to assist 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, rigor, expectations of students, and pedagogical implications. Cultivation of formal space on campus where UCLA students learn to engage collaboratively with diverse community of scholars; to comprehend and apply effective learning strategies and theoretical foundations of college student development; to navigate complex structure of UCLA; to practice resilience and growth mindset; to think critically about diversity and their identity; and to be fully aware of their value to intellectual fabric of institution as contributors to innovative research and scholarship. P/NP grading.

10. 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, 10B, 10C, 10D, 10E, or former course 10. Designed for first-year students. Study of research university’s history, mission, rigor, expectations of students, and pedagogical implications. Cultivation of formal space on campus where UCLA students learn to explore majors in humanities and identify transferable skills; 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.

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Stephen K. Commins, PhD
Carol E. Goldstein, BA
Joan C. Ling, MA
Walker R. Wells, MCRP
Goetz Wolff, MPHil

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 specialize in development planning abroad, including rural development, and many graduates have found positions in Latin America, Africa, and Asia.

The program offers an undergraduate minor in Urban and Regional Studies, a two-year Master of Urban and Regional Planning (MURP) degree, and a PhD degree. Concurrent degree programs allow students to combine study for a MURP in Urban Planning with work toward an MBA in the Anderson Graduate School of Management, a JD in the School of Law, an MA in Latin American Studies, or an MPH in Community Health Sciences and in Environmental Health Sciences in the Fielding School of Public Health.

The department takes pride in its collegial atmosphere. It features a lively mix of students from diverse academic backgrounds, drawn from many foreign countries and from every avenue of American life. It includes many members of racial and ethnic minority groups, and more than half the students are women. Student organizations provide an interesting program of extracurricular activities.

Undergraduate Study
Urban and Regional Studies Minor

The scale, diversity, balkanized governance, and natural environment of Southern California all contribute to 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 120 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 120 or 121 with a grade of C or better; (2) five elective courses selected as follows: (a) at least three courses from Public Policy 10A, C115, M120, Urban Planning 120 (unless taken under item 1), 121 (unless taken under item 1), 130, 133, 141, M150, M160, M165, M175, C184 and (b) up to two courses from Anthropology 146, Chicana and Chicano Studies 181, Geography 150, History 45A, 45B, Sociology 158 (students may petition to include a Luskin School of Public Affairs course not listed above to fulfill an elective requirement); (3) capstone project that may be satisfied by one of the following: (a) Urban Planning
Planning 185SL—service learning project or (b) Urban Planning 199 or a 199 in the College of Letters and Science with a faculty mentor affiliated with this minor—individual research project. 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. Six concurrent degree programs (Urban Planning MURP/Architecture MArch I, Urban Planning MURP/Community Health Sciences MPH, Urban Planning MURP/Environmental Health Sciences MPH, 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.

19. Urban Planning. (1) 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.

19. 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 15 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 M110.) Lecture, three hours; discussion, one hour. Analysis and praxis of public 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, and politics in globally interconnected, transnational world, while avoiding analytical divide between global north and global south. Letter grading.

120. Introduction to Cities and Planning. (4) Lecture, three hours. Survey of urban history and evolution in U.S. urban theory, current trends in urban systems of cities, urban economy and economic restructuring, sustainable urban form, and environmental policy. Lecture, three hours. Letter or P/NP 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 governance in urban organizations and governance, economic development and growth management, land use, or urban sprawl. Specific topic area rotates depending on instructor. May be repeated for credit with topic change. P/NP or 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 planning and development, land use, or urban sprawl). 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 besieged 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 public activities 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 to urban political economy, with major emphasis on American urban problems and restructuring of modern metropolis. Topics include historical geography of urbanization, development and transformation of urban spaces in response to planning and metropolitan political fragmentation, urban fiscal crisis, and role of urban social movements. Concurrently scheduled with course C233. P/NP or letter grading.

CM137. Southern California Regional Economy. (4) (Same as Labor and Workplace Studies M138.) 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 economic experts. Concurrently scheduled with course C237C. 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 and Workplace Studies M121.) 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 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 issues that affect low-income communities, communities of color, and underserved neighborhoods, particularly in Los Angeles area. Field of planning offers distinct perspectives and opportunities for improving value and efficiency. 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 M149.) 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 transport. P/NP or letter grading.

CM151. Transportation and Land Use: Parking. (4) (Same as Public Affairs M151.) Lecture, three hours. 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 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 it. Takes 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 of 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 lives in urbanized 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 potential centers of innovation 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.

M163. California Sustainable Development: Economic Perspective. (4) (Same as Environment M135 and Public Policy M149.) Lecture, three hours. Examination of specific environmental challenges that California faces. Microeconomics considered, with special emphasis on incentives of polluters to reduce their pollution and incentives of local, federal, and state government to address these issues. Focus on measurement and empirical hypothesis testing. P/NP or letter grading.

M164A. Documentary Production for Social Change: Mobility in Los Angeles. (5) (Same as Dis- covered Realities M164A.) Seminar, two hours. Exploration of documentary filmmaking as catalyst for social change, using daily commute in Los Angeles as case study. Introduction to issues of race, ethnicity, gender, disability, and class on experiences 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.
mental pricing, public service pricing, and conflicts between individual and collective rationality. Letter grading.

208A. Colloquium in Planning Research. (4) Lecture, one hour; discussion, two hours. Required of first-year PhD students. Introduction to design and execution of dissertation research; exploration of subfields of planning scholarship and approaches to research on contemporary planning topics. Preparation and filing of PhD program of study. 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 methods for 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 to scholarship. Letter grading.

208C. Advanced Research Design. (4) Seminar, three hours. Required of all PhD students who have passed their field examinations but have not yet advanced to candidacy, and all MURP students completing their thesis capstone option. Advanced research design course that guides students in selecting problem/question to study, reviewing previous research on planning specific research questions/hypotheses, and selecting methodology and plan for testing hypotheses. Students complete and orally defend their dissertation/thesis proposal. May be repeated for credit. S/U or letter grading.

209. Special Topics in Planning Theory. (4) Lecture, three hours. Topics in planning theory selected by faculty members. May be repeated for credit. S/U or letter grading.

M201A. Special Topics in Public Affairs. (4) (Same as Public Policy M291C and Social Welfare M203X.) Seminar, three hours; outside study, nine hours. Advanced seminar on emerging issues across public policy, science, technology, and urban planning. May be repeated for credit. S/U or letter grading.

211. Law and Quality of Urban Life. (4) Lecture, two hours; studio, one hour. Presentation of basic legal principles and methods for determining the validity of regulations. Includes discussion of ethical considerations. Letter grading.


218. Graphics and Urban Information. (4) Lecture, two hours; studio, 90 minutes. Preparation passes on basic mathematics proficiency examination given first day of class. Introduction to mathematical and statistical concepts and methods with applications of urban planning. Review of basic mathematical concepts fundamental to planning methods; linear and nonlinear functions focusing on growth curves and mathematics of finance; data measurement and descriptive statistics and probability. Introduction to use of computer as tool in analysis of planning-related data. Letter grading.

218B. Quantitative Analysis in Urban Planning II. (4) Lecture, three hours; laboratory, 90 minutes. Preparation: passing score on mathematics proficiency examination given first day of course. Introduction to more complex statistical methods. Topics include sampling, hypothesis testing, analysis of variance, correlation, and multiple regression. Use of the computer tool in statistical analysis and modeling. Letter grading.

222A. Data Analysis in Urban Planning I. (4) Lecture, three hours; laboratory, 90 minutes. Preparation: passing score on mathematics proficiency examination given first day of course. Introduction to more complex statistical methods. Topics include sampling, hypothesis testing, analysis of variance, correlation, and multiple regression. Use of the computer tool in statistical analysis and modeling. Letter grading.

222B. Data Analysis in Urban Planning II. (4) Lecture, three hours; laboratory, 90 minutes. Preparation: course 220A or equivalent as demonstrated by passing score on mathematics proficiency examination given first day of course 220A. Introduction to more complex statistical methods. Letter grading.

229. Special Topics in Planning Methods. (4) Seminar, three hours. Topics in planning methodology selected by faculty members. May be repeated for credit. S/U or letter grading.

231. Environmental Planning Theory and History I. (4) Seminar, three hours. Topics in planning methodology selected by faculty members. May be repeated for credit. S/U or letter grading.

232. Disaster Management and Response. (4) Lecture, three hours. Through readings and presentations, introduction of disaster management. Topics include the impacts of disaster management on both U.S. and developing countries. Exploration of how disaster impacts and risk reduction both relate to economic, vulnerability, and political factors, in addition to the impacts of nature. Strengths and weaknesses of plans to focus on distinct disaster contexts and themes as set out in reading and weekly sessions. Letter grading.

233. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to new approaches to urban studies, basic concepts, and political approaches to urban political economy, with major emphasis on American urban problems and restructuring of modern metropolis. Topics include historical geography of urbanization, development and transformation of urban spatial structure, urbanization and metropolitan political fragmentation, urban fiscal crisis, and role of urban social movements. Concludes with scheduled course 213C. 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 developing countries. Emphasis on linkages between policy and rural and urban impacts. Gives students experience in important background materials, 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 M255. Science and policies of modern environmentalism and planning in light of transformations inherent in global change, including how to address these questions 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. Informed by Muirist model of untrammeled nature, and postmodernist views set- asides for spiritual and scientific contemplation of nature; this approach used in environmental policy and as key idea in conservation and fragment biology. At opposite end is environmental planning for urban environments 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.

M234C. Resource-Based Development. (4) (Same as Geography M229C.) Lecture, three hours. Recommended preparation: course M234A. Some major issues associated with development of specific natural resources. Topics include tourism, local or regional resource (or region associated with it), its previous management, involvement of state, corporations, and local groups, and environmental and social impact of its development. Letter grading.

235B. Civil Society, Nongovernmental Organizations, 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 Development I. (4) (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 regions, process of regional growth and decline, reasons for different levels of economic development, relations between more and less developed regions. Letter grading.

M236B. Globalization and Regional Development. (4) (Same as Geography M230B.) Lecture, three hours. Requisite: course M236A. Application of theories of regional economic development, location, and trade to contemporary world. Survey of case studies and policies as they have been treated in the open literature. Lecture grading.

236C. Advanced Workshop on Regions in World Economy. (4) Lecture, three hours. Requisite: course M236B. Advanced workshop on regional development examining changes in organization of production systems, their geographies, and processes that affect regional performance in globalized environment. Letter grading.

237A. Sectoral Analysis. (4) Lecture, three hours; laboratory, one hour. Survey of labor-related programs, policy, and cedures of sectoral investigation as applied to regions, 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 a tool for 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. Because economic development strategies seek to modify or shape existing conditions, focus on how policies and programs affect the spatial dimensions of poverty and planning interventions that contribute to poverty reduction. Topics include relationships between poverty and human and natural capital, demographic and labor market, spatial concentration of poor, residential segregation, and social policy. Letter grading.

245. Urban Public Finance. (4) Lecture, three hours. Requisites: courses 220A, 237A. Theory and practice of urban public finance, with emphasis on methods used to fund public infrastructure. Topics include fiscal impact analysis of real estate development, effects of taxes on land use decisions, benefit assessments to finance neighborhood public investment, private and intergovernmental contracting as method of supplying public urban services, tax increment finance for urban redevelopment, 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 research issues concerning poverty and social welfare policy directed toward U.S. or letter grading.

247. Planning for Multiple Publics. (4) Lecture, three hours. Exploration of planning needs of various social groups, including low-income groups, as evidenced by professional writing on planning theory and research studies to determine appropriate mechanisms of planning for various publics. Analysis of communities in Los Angeles metropolitan area to gain insights into practical, theoretical, and methodological problems of planning for multiple publics. Generally taken in first year. S/U or letter grading.

248. 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 administration. Current reform consensus and major re-forms. Letter grading.

250. Transportation, Land Use, and Urban Form. (4) (Same as Public Policy M220L.) Lecture, three hours. Historical evolution of urban form and transportation systems. Development of urban location theory, recent trends in urban form, spatial mismatch hypothesis, 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 251L.) Lecture, three hours. 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 planners rely on transporta-tion 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 parking policy can be explained 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 parking decision-making. 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 course CM151. Letter grading.

252. Transportation and Land Use: Transportation and Urban Design Studio. (4) Seminar, three hours. Students of different backgrounds and interests collaborate and individually and analyze and propose solutions for transportation improvements and urban design problems. Course simulates real-world professional planning project of type that students might be assigned if working for public or private agencies. Students acquire ability to collect and synthesize evidence typically marshaled by transportation planning and urban design professionals, urban and site analysis capabilities, design and physical planning skills, and data analysis and design presentation and re-presentation abilities. Letter grading.

253. Travel Behavior Analysis. (4) (Same as Public Policy M221.) Lecture, three hours. Requisites: courses 217 and 220B, or Public Policy 201 and 203. Descriptions of travel patterns in metropolitan areas, recent trends and projections into future, overview of travel forecasting methods, trip generation, trip distribution, model split traffic assignment, criteria of traditional travel forecasting methods and new approaches to travel behavior analysis. Letter grading.

254. Bicycle and Pedestrian Planning. (4) Lecture, three hours. Walking and bicycling are essential components of sustainable transportation systems. In response to growing concerns about access, safety, public health, equity, climate change, and community sustainability issues, many government agencies and private organizations are investing in pedestrian and bicycle transportation. Exploration of field’s relationship to land use planning and transportation planning, public health, and environment. Detailed knowledge planning; various bike-share and scooter-share programs, and their appropriate contexts. Examination of bicycle and pedestrian planning in context of overall street design. Essential components of bicycle and pedestrian planning, including policies, programs, funding, and advocacy. In-class exercises and out-of-class planning projects. Letter grading.

255. Shared Mobility Policy and Planning. (4) (Same as Public Policy M244.) Lecture, three hours. Introduction to planning, analysis, and management of shared mobility systems, with particular focus on public transit. Overview of shared mobility policy and planning context; introduction to transportation planning and project evaluation processes; high-speed rail and airports and aviation; public transit policy and planning, including performance evaluation and route planning; transit systems and ADA paratransit, ride-hailing, car-, bike-, and scooter-share; implications of vehicle automation for shared mobility in the years ahead. Letter grading.

256. Transportation Economics, Finance, and Policy. (Same as Public Policy M245.) Lecture, three hours. Overview of transportation finance and economics; concepts of efficiency and equity in transportation finance; historical evolution of highway and transit finance; current issues in highway finance; private participation in road finance, 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.
257. Transportation and Economic Outcomes. (4) Lecture, three hours. Examination of equity issues related to urban transportation, with focus on complex relationships among urban spatial structure, transportation (travel patterns and transportation investments), and economic outcomes; role of transportation in improving economic outcomes for low-income and minority households and communities. Letter grading.

258. Transportation and Environmental Issues. (4) (Same as Public Policy M223.) Lecture, three hours. Regulatory structure linking transportation, air quality, and energy issues, chemistry of air pollution, overview of transportation-related approaches to air quality enhancement; new car tailpipe standard; vehicle inspection and emission; pollution issues; transportation demand management and transportation control measures; alternative fuels and electric vehicles; corporate average fuel economy and global warming issues; growth of automobile worldwide fleet; automobile in sustainability debate. Letter grading.

260. Environmental Politics and Governance. (4) 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.


260B. Green Urban Studio: Designing Living Neighborhoods. (4) Studio, three hours. Students gain detailed knowledge of both established and emerging performance-based methods for addressing issues of energy, water, waste, food, transportation, habitat, biomicromy, and local economies at district or neighborhood scale. Letter grading.

261. Land-Use Planning: Processes, Critiques, and Innovations. (4) Lecture, three hours. Understanding of techniques, processes, strategies, and dilemmas of land-use planning. Despite strong criticisms and demonstrated shortcomings, land-use control remains integral part of planning practice. How does land-use control work? How has it evolved? What are problems with traditional land-use control mechanisms? How well do innovations in land-use planning address criticisms? What is role of land-use planning in good society? S/U or letter grading.

262. Urban Environmental Problems: Water Resources. (4) Lecture, three hours. Water access affected by climate change, especially in California and across low and middle income countries. Examination of similarities and distinctions between relevant water access issues in both contexts. To date, water resources planning has been devoted almost exclusively to engineering and technical capacity of service delivery systems. Focus here on social, political, and economic drivers of access, inequity of access, and related concerns. Resource governance issues primarily considered at subnational, city, and household scales. S/U or letter grading.

263. Introduction to Environmental Policy. (4) (Same as Public Policy M214.) Lecture, two hours; outside study, nine hours. Introduction to basic concepts and methods of environmental analysis covering variety of topics with cross-disciplinary perspectives. Development of ability to analyze and evaluate legal and resource issues as well as to read, discuss, and write about environmental policy. Letter grading.

264. Environmental Law. (4 or 6) Lecture, three or four hours. Examination of field of environmental law through analysis of major legal issues and public policy: legal consequences of public decision-making and allocation of primary responsibility for various environmental decisions. Focus on air pollution and climate change, with illustrations of policy issues underlying field. Concurrently scheduled with Law 290. S/U or letter grading.

264A-264B. Environmental Law. (264A: 3 or 4; 264B: 1 or 2) Lecture, three hours. Course 264A is enforced requisite to 264B. Examination of field of environmental law through analysis of various legal issues and public policy: legal consequences of public decision-making and allocation of primary responsibility for various environmental decisions. Focus on air pollution and Clean Air Act as means of illustrating policy issues underlying field. Concurrently scheduled with Law 290. In Progress (264A) and S/U or letter (264B) grading.


265C. Food Systems. (4) Lecture, three hours. Review of array of food and production systems, systems of distribution, and systems of consumption to address most widespread human impacts on planetary biodiversity, landscapes, climates, and social systems. Letter grading.


267. Environmental and Resource Economics and Policy. (4) Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 204 and 208. Survey of ways economic principles are used to define, analyze, and resolve problems of environmental concern. Overview of analytical questions addressed by environmental economists that bear on public policies. Letter grading.

268. Policy Analysis of Emerging Environmental Technologies. (4) (Same as Public Policy M268) Lecture, three hours. Acquistion and utilization of economic, finance, planning, and policy analytic tools needed to evaluate factors that drive market adoption from early to middle market phases. Topical solar, electric vehicle, and energy efficiency as focal examples, with emphasis on role of policy and planning incentives intended to spur adoption. Letter grading.

269. Special Topics in Environmental Analysis and Policy. (4) Lecture, three hours. Topics in environmental analysis and policy selected by faculty members. May be repeated for credit. S/U or letter grading.

270. Homelessness: Housing and Social Service Issues. (4) (Same as Social Welfare M206A.) Lecture, 90 minutes; discussion, 90 minutes; one field trip. Review of current status of homelessness: who homeless are, what social services and housing are available, existing and proposed programs—appropriate architecture and funding. Outside speakers include providers of services to homeless. Letter grading.

271A. Community Economic Development. (For- merly numbered 271.) Lecture, three hours. Introduction to fundamentals of community development and neighborhood development strategies. Overview of basic approaches, important concepts, resources and language of field, and major strategies for revitalization of low-income neighborhoods. Letter grading.

271B. Labor and Economic Development. (4) Lecture, three hours. Exploration of economic development and identification of ways that labor and economic development opportunities and disadvantages change economic development. Wide range of roles that labor plays, and could play, in promoting and supporting economic development for all. Concurrently scheduled 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. Requisites: Recommended for students in community development and built environment area of concentration. Introduction to real estate development process specifically geared to students in planning, architecture, and urban design. Financial decision model, market studies, designs, loan packages, development plan, and feasibility studies. Lectures and projects integrate development process with proposed design solutions that are interactively modified to meet economic feasibility tests. S/U or letter grading.

272B. Advanced Real Estate Studio. (4) Studio, three hours. Study combines disciplines of planning, urban design, construction, and investment, and property operations and management. Students learn about behind-the-scene negotiations and decisions, and gain better ability to determine real estate project feasibility, and knowledge about financing methods and alternatives, and knowledge about ways to frame development programs for success. Letter grading.

273. Site Planning. (4) Lecture, 90 minutes; laboratory, 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. Designed for students with no prior physical planning background and for first-year MA students in community development and built environment, design and development, and transportation policy and planning concentrations. Introductory overview of physical planning, land use, site analysis, and surveys; regulatory structures and social/community impacts. Letter grading.

275. Community Development and Housing Policies: Roles of State, Civil Society, and Nonprofits. (4) (Same as Public Policy M243 and Social Welfare M290U.) Lecture, three hours; outside study, nine hours. Role of government and public policy initiatives in role of U.S. housing policy and role of government agencies and community organizations, is problem housing or economic development? Should interventions be directed toward inner city housing markets or through neighborhood strategies? What lessons can be learned from experiences of other countries? Letter grading.

276A-276B. Urban Housing. (1 to 8 each) (Same as Law M287.) Lecture, three hours. Course 276A is enforced requisite to 276B. Examination of past 40 years of federal and state programs to stem urban decline and improve housing in U.S.; comparison and contrast of legal and policy initiatives; examination of role of public housing, housing segregation, mortgage subsidies, landlord/tenant law, urban renewal, and community organizing. Research paper. In Progress (276A) and S/U or letter (276B) grading.

277. Historic Preservation: Principles and Practice. (4) Lecture, 90 minutes; discussion, 90 minutes. Overview of preservation field, including history and theory, current legislation, and funding. Outside speakers include providers of services to homeless. Letter grading.

278. More Jobs, Better Jobs: Work and Policy. (4) Lecture, three hours. Course 268. Issues in urban economic development is jobs—how to create them, how to help disadvantaged populations get access to them, and how to ensure that they are of adequate quality in terms of wages, advancement, and skill development.
development. Examination of how urban labor markets work and what can be done to help them work better, with a focus on U.S. Particular emphasis on low-wage, low-skilled workers and marginalized groups, such as inner-city people of color and immigrants. Analyses 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, union 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. Investigation of changes in production, consumption, and cultural criticism 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. Requisites: courses 220A, 220B. 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.

281. Introduction to History of Built Environment in U.S. (4) Lecture, discussion, one hour. Open to advanced undergraduates with consent of instructor. Introduction to history of physical forms of urbanization in America: survey of economic, political, social, and cultural forces behind creation of built environments. 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. Discussion 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 organizing (CBOR). Understanding of theories, principles, and strategies of CBOR, appreciation of advantages and limitations of this approach, and skills necessary for participating effectively in CBPR. Understanding of depth and breadth of one organizing model and participation in ongoing research project that supports one local community or worker organization, exploring links between research and organizing. 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 C184. Letter grading.

287. Politics, Power, and Philanthropy. (4) (Same as Public Policy M227 and Social Welfare M205S.) Lecture, three hours; outside study, nine hours. Use of political power and the power to analyze power to understand the ways in which nonprofits have shaped rise characteristics and non-profit sector and its constituent elements. Examination of social history of non-profit sector in U.S. Exploration of legal and institutional and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

288. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Public Policy M228 and Social Welfare M214E.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Various patterns of community action for attaining social welfare objectives; research and field experience directed toward study of social problems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

289. Sprawl 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 M247f1.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Technical processes of problem solving regarding sustainability and economic development. This form of community practice fills niche between professional and knowledge and skill set possessed by agency and program administrators on one hand and by policy analysts and policymakers on other. Letter grading.

M291. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Architecture and Urban Design M247A.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of how urban labor markets work with discussion of inner-city people of color and immigrants. Analysis of work and what can be done to help them work better, with a focus on U.S. Particular emphasis on low-wage, low-skilled workers and marginalized groups, such as inner-city people of color and immigrants. Analyses 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, union and community organizing, and immigration reform. Examination of power and economic inequality and how to make changes. Letter grading.

596. MA Research in Planning. (2 to 4) Tutorial, four hours. May be repeated for credit. 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 4) Tutorial, to be arranged. May be repeated for credit. S/U grading.

Urology
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Mark S. Litwin, MD, MPH, FACS (Fran and Ray Stark Foundation Professor of Urology), Chair

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 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
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 professions 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 undergraduate education, 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 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

198. Directed Research in Urology. (2 to 8) 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.

Lower-Division Courses

199. Directed Research in Urology. (2 to 8) Tutorial, three 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.

Visual and Performing Arts Education

Interdisciplinary Minor
School of the Arts and Architecture
2101 Broad Art Center
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Los Angeles, CA 90095-1620
Visual and Performing Arts Education
310-794-4822
Minor e-mail
Angela S.-Y. Leung, MA, DMA, Chair

Faculty Committee

Faculty Committee
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Perry M. Daniel, MFA (Theater)
David H. Gere, PhD (World Arts and Cultures/Dance)
Angela S.-Y. Leung, MA, DMA (World Arts and Cultures/Dance)
Victoria E. Marks, BA (World Arts and Cultures/Dance)
Hirsch Perlman, BA (Art)
Karen Hunter Quartz, PhD (Education)
David J. Roussève, BA (World Arts and Cultures/Dance)

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. (5) 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, emphasizing the power of arts to encourage and support community partnerships, 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 undergraduate education, civic engagement, and support for institutional priorities to improve the quality of life for Los Angeles residents.

Upper-Division Courses

101. Selected Topics in Arts Education. (4) Lecture, three hours; outside study, nine hours. Selected topics in arts education explored through variety of approaches that may include community projects, guided teaching experiences, studio and/or fieldwork, readings, discussion, research papers, and oral presentations. 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 with focus on arts education 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 schools and arts organizations. Collaborative writing regular class assignments that require students to read, analyze, critique, and evaluate community arts practices and arts education scholarship. P/NP or letter grading.

Socially Engaged Pedagogy in Arts, (4) Lecture, three hours; outside study, nine hours. Students are in contact and conversation with active community-based artists and youth workers regularly utilizing socially engaged goals, principles, and practices. Based on readings and investigations, students research and write one case study on one particular arts 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 education 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, artists 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.

M192. Arts Education Undergraduate Practicum: Preparation, Observation, and Practice. (4) (Same as Education M190SL) Seminar, three hours; practicum, three hours; outside study, six hours. Enforced requisites: courses M102, M192. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students participating in Visual and Performing Arts Education minor. Students implement and evaluate original arts education programs under guidance of faculty members in small course settings. 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, eight hours. Enforced requisites: courses M102, M192. Limited to juniors/seniors. Continuing 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

World Arts and Cultures/Dance

School of the Arts and Architecture

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Box 951608
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World Arts and Cultures/Dance

310-825-3951

Department e-mail

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David H. Greer, PhD
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David Delgado Shorter, PhD
Patricia A. Turner, PhD
Christopher A. Waterman, PhD
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Professors Emeriti

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Judith F. Baca, MA
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Assistant Professor

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Lecturers

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Gracelyn W. Coad, MA
Robert W. Eten, BA
Leigh R. Foaad
Meryl L. Friedman
Robert J. Gordon, MS
Ginger Holguin, BFA
Jackelyn G. Lopez, BA
Patrick Polk, PhD
Katherine M. Smith, PhD
Ken Switt
Natsuo Tomita
Jason C. Tsou, MS
Margaret J. Williams
Aimee Woodbode, BA

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 (WA/C) 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 encouraged 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 Dance 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 Dance, with an emphasis on choreography. Culture and performance students 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 Dance 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.

The three research areas are (1) creative inquiry as research, (2) critical dance studies, and (3) dance and civic engagement. The creative inquiry as research 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 identifier 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 artist-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 all or any 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 inter-cultural 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

**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.

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 in January. For freshmen 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 supplement 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, C112, 169, 170, C171, 174A, 174B, C180, or other upper-division courses with faculty approval, (b) critical dance studies—Dance 145, 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, 177S, 195, or other upper-division courses with faculty approval (no more than 8 units of courses 134 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, 15, 56, 59, 63, 65, C106A, C113A, 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 pro-
vides 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 projects or an academic research paper to field/internship work in an identified area of research focus. With faculty advising, students must declare their intent to participate by spring quarter of their junior year. They identify a faculty mentor and work closely with that person on the development of the project, submitting a senior project proposal for faculty approval by the beginning of the senior year. In their senior year they enroll in a two-term course sequence (Dance 186A, 186B) to coordinate and present their research findings.

World Arts and Cultures BA

Three streams of cross-cultural and interdisciplinary study are available in the World Arts and Cultures major: arts activism, critical ethnographies, and visual cultures. Students are introduced to all three streams through introductory courses the first year and then by a pyramidal progression, they develop intermediate knowledge in two streams followed by advanced knowledge in the stream selected as the individual specialty. Four lower-division and three upper-division core courses are required to establish interdisciplinary relationships between theory and discourse, methods, and experience. Representation is studied within societies—as people understand their own lives and the world around them—and then from the outside looking in through humanistic scholarship.

The major emphasizes hands-on activities such as internships to build skills necessary to participate in the required senior projects. In consultation with faculty advisers students select elective courses within and outside the department to increase knowledge of particular area studies, histories, literatures, theories, and methods.

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 World Arts and Cultures major has the following learning outcomes:

- Demonstrated critical analyses of a variety of approaches to visual and performance-based art making and activism in cross-cultural contexts
- Interpretation of and, in some cases, conduct of field-based research within specific communities
- Demonstrated ability to conceptualize, plan, and exercise art, curatorial, and/or ethnographic projects that reflect a dynamic dialog between theory and practice
- Demonstrated sensitivity to diversity and cultural differences, particularly as articulated within various forms of governance, national and international policy, transnational art and curatorial practices, and museum and heritage sites
- Development of informed interpretations, not only of the way that art functions within commu-

nities but also how the links between art and community and created and represented
- Articulation of the value of civic engagement within a variety of arts-oriented social contexts

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, M23, or SIW.

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, T74A, T74B, T75L, 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, 123, C191, C140, C141, C142, C146, C150, C151, T74A, T74B, 181, 195, 199, or other upper-division courses with faculty approval, stream 3 (visual cultures)—Clusters 180A, courses 120 (with faculty approval), M125A, M125AL, M125B, M125BL, M125C, M125CL, M126, M128, CM130, 133, C130, C139, C141, C142, C145, C146, C152, T74A, T74B, C180, 181, C182, C184, M187, 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, documentations, installations, short films, internships, 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 Dance.

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.

5. Moving Voice, (2) 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 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.

6. 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.

10. 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.

11. Yoga. (2) Studio, three hours. Beginning-level study of yoga. May be repeated for credit without limitation. P/NP or letter grading.

12. 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.


14. Beginning Modern/Postmodern Dance. (2) Laboratory, four hours. Study of modern and/or postmodern movement practice. May be repeated for credit without limitation. P/NP or letter grading.

15. Beginning Modern/Postmodern Dance. (2) Studio, three hours. Intermediate-level study of variable movement practices. May be repeated for credit without limitation. P/NP or letter grading.

16. Beginning Improvement 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.

17. 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.

18. World Dance Histories. (5) Lecture, three hours; discussion, two hours. Comparative framework for looking at dance practices through time as they have developed around the 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.

19. 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 and cultural phenomena, including attention to gender, race, class, and national identity. P/NP or letter grading.


23. 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.


25. 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.

26. A Theory and Methods in Dance Composition I: Language. (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 creating languages of their dances. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

27. Theories and Methods in Dance Composition II: Processes. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisite: course 67A. Examines process through which creation of dance can take place. How do different choreographers conceptualize creative process of dance-making? What kinds of strategies do they develop for sequencing their materials? 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. Examination of range of locations for dances, including but not limited to theatrical support and planning and executing lecture series. Introduction to professional stage production principles and hands-on experience in theater. May be repeated once for credit. P/NP grading.

28. 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 studio, seminar, paper writing, 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.

29. 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 contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

30. Advanced Improvisation in Dance. (2) Studio, three hours. Intermediate-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. P/NP or letter grading.

31. Advanced Modern/Postmodern Dance. (2) Studio, four hours. Advanced-level study of variable movement practices. May be repeated for credit without limitation. Concurrently scheduled with course 406A. P/NP or letter grading.

32. 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 409A. P/NP or letter grading.

33. 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.

34. Performance Practicum. (1 to 4) Studio, three to 12 hours. Rehearsal and performance in selected choreographic/theatrical work. May be repeated for credit without limitation. P/NP grading.

35. Advanced Special Topics. (2) Studio, three hours. Advanced-level study of in-depth movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C412A. P/NP or letter grading.

36. Advanced Modern/Postmodern Dance. (2) Studio, four hours. Advanced-level study of in-depth 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.


38. 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 impacts dance-making. How does each of the following influence experience of it? What are factors that need to be considered when locating dance in one specific place? 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. Examination of range of locations for dances, including proscenium stages, theaters in round, parks, sidewalks, temples, amphitheaters, village squares, and other site-specific locations that endow dance with specific significance 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.

39. Theories and Methods in Dance Composition IV: Practices. (4) Seminar, four 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 to determine how dances 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.

40. Advanced Topics in Choreography. (4) Lecture, four hours; studio, two hours; outside study, six hours. Enforced requisites: courses 16, 67A, 67B. Discussion and development in in-depth studies of 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. P/NP or letter grading.

41. 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, choreogra-
C145. Selected Topics in Dance Studies. (4) Lecture; four hours; outside study, eight hours. Designed for juniors/seniors. Selected topics in study of dance and choreography. Schedule of classes for specific topics will be offered in specific term. May be repeated for credit with topic change. Concurrently scheduled with course CM222. 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/NP 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 with disabilities, reading and discussions 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 creative act idea broadly defined as scored movement and organization of 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.

158. Choreographing Gender. (4) Lecture; three hours; laboratory, two hours. Designed for juniors/seniors. Analysis of aesthetic codes and theoretical choreography. Focus on how idea broadly defined as scored movement and organization of 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.

159. Movement Theories. (2) Lecture; two hours; laboratory; two hours. Study of motor coordination patterns as related to expressive movement features for dance performance. Personalized attention and use of video to increase students’ stylistic diversity. Development of motor efficiency for prevention of dance injuries. May be repeated twice. P/NP or letter grading.

160. Topics in Body Mechanics. (4) Lecture; three hours; studio, one hour. Designed for juniors/seniors. Variables affecting performance; discussion of injury prevention, anatomy for dancers, and study of biological and physical principles of human movement as related to dance. May be repeated for credit without limitation. P/NP 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 practicum included. P/NP or letter grading.

166. Dance as Culture in Education. (4) Lecture; two hours; laboratory; two 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.

167. Creative Dance for Children. (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/NP or letter grading.

168A-168B. Senior Projects in Dance. (5-5) Lecture; four hours; outside study, 11 hours. Concurrently scheduled with course C243. P/NP or letter grading.

186A-186B. Senior Projects in Dance. (5-5) Lecture; four hours; outside study, 11 hours. Concurrently scheduled with course C243. P/NP or letter grading.

CM168. Beyond Academia: Making Art in Real World. (4) Same as World Arts and Cultures CM168.) Lecture; four hours; outside study, eight hours. Designed for 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 CM222. P/NP or letter grading.

C169. 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 producing regional ensemble and festival with repair. May be repeated once. P/NP or letter grading.

170. Advanced Production. (1 to 2) Laboratory, three hours; outside study, up to three hours. Requisite: 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, as well as opportunity to study nature of this component in world arts and cultures/dance studies. May be repeated for credit without limitation. P/NP or letter grading.

C171. Dance Production: Variable Topics. (4) Lecture; four hours; laboratory; two hours. Foundational 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/NP 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/NP 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/NP 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 aesthetics 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 grading.

180. Dance for Camera. (4) Lecture; two hours; laboratory; two hours. Introduction to making dance for camera. Student acquire and apply basic video production skills for creation of movement-based projects. With rudimentary tools—to 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 Arts 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, promotion, funding, raising, legacies, and archiving. Concurrently scheduled with course C184. S/U or letter grading.

191A. 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/NP or letter grading.

191B. 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/NP or letter grading.

218. Dance in Performance. (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 C152. S/U or letter grading.

C224. Production Arts 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, legacies, and archiving. Concurrently scheduled with course C243. P/NP or letter grading.

C225. 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 C152. 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. (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 C152. S/U or letter grading.

C271. Dance Production: Variable Topics. (4) Lecture; four hours; laboratory; two hours. Created 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.

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 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. S/U or letter grading.

C271. Dance Production: Variable Topics. (4) Lecture; four hours; laboratory; two hours. Created 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.

C280. Dance for Camera. (4) Lecture; two hours; laboratory; two hours. Introduction to making dance for camera. Students acquire and apply basic video production skills for creation of movement-based projects. With rudimentary tools—to 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 C184. Letter grading.

C408A. Advanced Level 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. May be repeated for credit without limitation. Concurrently scheduled with course C106A. 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 C106A. S/U or letter grading.

C412A. Advanced Special Topics. (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.

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 C115. S/U or letter grading.

441. Dance Production Practicum. (2 to 4) Laboratory, four to eight hours (one or two hours may be individualized 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.

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 concert, reflecting professional achievement in choreography or performance, in first term, in second term, direction of on-stage rehearsals for culminating concert by each student entering to fully staged performance. 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, theoretical organization, participation in creative, administrative, or technical work of professionals in their specialties. 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 interactions 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 culture-based 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, creation of dance/theatrical performance, theoretical and analytical approaches to arts practice, arts activism, and other topics pertaining to broad fields of culture, performance, and dance. Research inquiry methods may include readings, assigned written analysis, supervised fieldwork, individual and collaborative assignments, and/or practice-oriented processes. Substantial culminating project integrating theoretical and practical components of selected seminar topics required. May be repeated 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. Culture: Introduction. (5) Lecture, four hours. Introduction to key concepts and major theoretical and methodological debates that characterize field of cultural studies, including discussion of notions of culture, popular culture, subculture, youth culture, hege- mony, gender, race, class, and national identity. Letter grading.

22. Introduction to American Folklore Studies. (5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Historical/cultural survey of role of folklore in development of American civilization and of influence of American experience in shaping folklore in American society. Involves reading and presentation of areas of inquiry and analytical procedures. P/NP or letter grading.

M23. Introduction to American Indian Studies. (5) (Same as American Indian Studies M10) Lecture, three hours; discussion, 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.

24. World Arts, Local Lives. (5) Lecture, three hours; discussion, one hour; outside study. Museum’s long-term exhibition entitled “Intersections: World Arts/Local Lives” as object of study to examine many insights that arts can offer into social, political, and religious experience. Examines cultures of Africa, Asia, Pacific, and indigenous Americas, both ancient and contemporary, considering degree to which notions of aesthetics and efficacy are intertwined and interdependent in art forms that inter- vene in people’s lives in active, instrumental ways. Use of specific case studies to illustrate and interrogate theoretical paradigms. P/NP or letter grading.

31. Local Lives. (5) Lecture, three hours; discussion, one hour; outside study. Introduction to study of indigenous worldview as they are expressed through art, mythology, ritual, health practice, languages, and ecology. With examples spanning globe, consideration of what we can learn about religious change, and legal and social implications of epistemological differences between people. Examination of critical perspectives on social development, historical progress, and intellectual assimilation. P/NP or letter grading.

51W. Aliens, Psychics, and Ghosts. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or EN 108 Freshman as a Second Language. Examination of approaches of discourse analysis and scientific method to understand how people make sense of other people’s stories of aliens, psychics, and ghosts. Exploration of how people come to believe what they do about human life, life after death, and other-than-human life. Satisfies Writing II requirement. Letter grading.

55. Intermediate World Arts Practices in Global and Transcultural Forms. (2) Studio, three hours; outside study, three hours. Intermediate-level study of world arts practices crossing national and cultural boundaries. Variable topics, such as body music, cross-cultural integration, and historical context. May be repeated for credit without limitation. P/NP or letter grading.

78. Private Instruction in World Arts and Cultures. (2 to 4) Studio, three to six hours. Designed for students interested in one world arts practice with distinguished com- munity-based artist to be arranged by students and approved by instructor. May be repeated for maximum of 24 units. P/NP grading.

794. World Arts and Cultures/Dance

M79. Food Politics: Cultural Solutions to Political Problems. (5) (Formerly numbered 79.) (Same as Food Studies M79) Lecture, four hours; discussion, one hour. Examination of issues of environmental and public health effects of intensive and extensive agri- cultural influence of corporate control on environment, 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 strategies to address such problems through policy and activism. P/NP or letter grading.

80. Video Tools and Techniques. (2) Laboratory, four hours. Introduction to video tools and practices to train students in key techniques of video production. Basic skills spanned to develop short videos for circulation via DVD and/or Internet. Practical exercises based on materials and instruction provided in class. Spanning production and postproduction processes of video making. Evaluation of students on these exer- cises and final submission of edited sequence of any or all materials developed during course. Training in technical aspects of video production and usage of video tools. P/NP or letter grading.

85. Sophomore-Year Proposal. (1) Lecture, 90 minutes. Planning and execution of proposal for junior year of study, with attention to career planning in the department and University as whole. P/NP 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 independent 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. 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 member. Stu- dents 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 juniors/seniors. Discussion of what constitutes artist’s social responsi- bility and what ways arts and artists might address such problems through policy and activism 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 juniors/seniors. One’s ability to distinguish between right and wrong action is culturally intuited, nurtured, and developed. Study of cultural strategies of moral engagement, persuasion, and inquiry in personal and public life, including acts of conscience and civil disobedience. P/NP or letter grading.

101. Theories of Performance. (5) Lecture, four hours; studio, two hours. Performance commonly re- fers to activities on proscenium stage. Exploration of that narrow notion of performance by delving into scholarship from young field of performance studies, which draws on disciplines of anthropology, cultural studies, gender studies, linguistics, postcolonial theory, and sociology. Exploration in studio of concept of performing theory by creating interdisciplinary per- formance works that engage with and amplify theories studied. P/NP or letter grading.

103. Arts in Communities. (5) Lecture, four hours. Introduction to theoretical and practical understanding of field of community arts by and for multiple publics. Review of relevant issues in field and exploration of roles of artists and arts organizations for social change, representation, and community building. Through national and international examples, examination of art works that emphasize participation of citizens in community-based and culturally relevant performance, art, and exhibition. Examination of pro-
ceses of creative thinking, community involvement, collaborative enterprise, research, and education in community arts. Letter grading.


114. Performance Practicum. (1 to 4) Studio, three to 12 hours. Rehearsal and performance in selected community-based or theatrical work. May be repeated for credit with change in topic. P/NP or letter grading.

120. Selected Topics in Cultural Studies. (4) Lecture, three hours. Designed for juniors/seniors. Selected topics in interdisciplinary study of arts and performance in cultural and historical context. 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.

121. Ethnography and Performance. (4) Lecture, four hours; outside study, eight hours. Survey of some ways that performance functions, including as well as development of some preliminary approaches to effectively document performance events. Reading of ethnographies of performances, as well as analyses of how performances can work ethnographically. P/NP or letter grading.

124. Introduction to Field-Based Research Methods. (5) Lecture, three hours. Introduction to methods, techniques, and conducting field-based research, including nature, uses, and limitations of major data-gathering procedures, ethical concerns, sampling, checks and controls, teamwork, interventions, and results. Students will conduct preliminary inquiries of inquiry but also personal and intangible. Through readings, discussion, and hands-on exercises, students learn how to plan fieldwork projects and how to present findings within questions with ethical issues, observe behavior, construct questionnaires, interview, use audiovisual documentation, and manage and present data. P/NP or letter grading.

M125A. Beyond Mexican Mural: Beginning Muralism and Community Development. (4) (Same as Art M186A and Chicana and Chicano Studies M186A) Studio lecture, four hours. Corequisite: course M125AL. Investigation of muralism as method of community involvement 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. P/NP or letter grading.

M125AL-M125BL-M125CL. Beyond Mexican Mural: Muralism and Community Laboratory. (4–2–2) (Same as Art M186AL-M186BL and Chicana and Chicano Studies M186AL-M186BL-M186CL) Course M125AL is requisite to M125BL, which is requisite to M125CL. Mural and Digital Laboratory is 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 tech support, it offers instruction in independence and in collaboratively teams research, design, and produce large-scale painted and digitally generated murals to be placed in community setting. P/NP or letter grading. M125AL. Lecture and laboratory, 12 hours. Corequisite: course M125A; M125AL. M125BL. Intermediate, Laboratory, four hours. Requisites: courses M125A, M125AL. Corequisite: course M125B; M125BL. Advanced, Laboratory, two hours. Corequisite M125B.

M125B. Beyond Mexican Mural: Intermediate Muralism and Community Development. (4) (Same as Art M186B and Chicana and Chicano Studies M186B) Studio lecture, four hours. Requisites: courses M125A, M125AL. Corequisite: course M125B. 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 through states of production to full scale and community approval. P/NP or letter grading.

M125C. Beyond Mexican Mural: Advanced Muralism and Community Development. (4) (Same as Art M186C and Chicana and Chicano Studies M186C) Studio/lecture, six hours. Requisites: courses M125B, M125BL. Corequisite: course M125CL. 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 through installation, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.

M126. Whose Monument Where: Course on Public Art. (4) (Same as Art M185 and Chicana and Chicano Studies M185.) Lecture, four hours. Recommended corequisite: course M125A, M125B, or M125C. Examination of public monuments in U.S. as basis for cultural insight and critique of American values from perspective of art. Use of urban Los Angeles as textbook in urban space issues such as who is public, what is public art in 20th century, what defines neighborhoods, and do different ethnic populations use public space differently. P/NP or letter grading.

M128. Chicana Art and Artists. (Same as Art M184 and Chicana and Chicano Studies M175.) Lecture, four hours. Introduction to Chicana art and artists. Examination of Chicana aesthetic. Chicana artists have developed unique experience and identity as artists and Chicanas. Letter grading.

C129. Food Customs and Symbolism. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to foodways, with particular attention to customs and symbolism in America. Topics include sensory realm, children and food, and food in advertising, food and its emotional significance, aversions and taboos, advertising, changing food habits, and American diet. Concurrently scheduled with course C229. P/NP or letter grading.

CM130. Space and Place. (4) (Formerly numbered M130.) (Same as Architecture and Urban Design CM130.) Lecture, three hours. Survey of array of spaces and place in cultural or comparative perspective and with performance emphasis, with focus on mutual interaction of human beings and their created environments. Emphasis on common, ordinary, and noncommercial, or vernacular nonbuilt and built environments, which are built and used by members of small-scale, traditional, and transitional communities around world. Concurrently scheduled with course CM230P. P/NP or letter grading.

C132. Narrative and Oral Performance. (4) Lecture, four hours. Survey of concepts of story as text versus narrating as oral performance, stories of individual narrators, how stories are composed in performance, interaction of narrator and audience, how place and experience become embodied in narratives, modes of representing oral narrating, and politics of stories and oral performance. P/NP or letter grading.

C133. Textiles of World. (4) Lecture, four hours; discussion, one hour; laboratory, one hour. How cloth and clothing was and continues to be hand-woven in indigenous societies. Use of textiles from Fowler Museum collection to coordinate hands-on experience with cultural history. May be repeated twice for credit. 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 epidemi. Working in close connection with public health and epidemiology, exploration of arts as powerfully effective 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 more. How arts and creativity in their cultural and historical contexts, with emphasis on AIDS, can be used 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 masters and shamans, and sacred arts render deities tangible. Nonjudgmental compara-
C152. Visual Cultures. (4) Lecture, three hours. How are ways of seeing constructed through culture, gender, religion, class, and nation? Theories and case studies from art and world permit understanding of social processes through which gaze is determined and image economies negotiated. Topics include scopic regimes, aesthetics of streamlined design, and visuality and faculty to be scheduled with course C252. P/NP or letter grading.

C158. Theorizing Arts Activism. (4) Seminar, three hours. Historicizing and theorizing of arts activism to provide context for analysis, creation, and protest. Readings include theoretical texts and current performance histories. 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 art 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 scholars and articles from public health and medical literature. Seminar members propose their own arts-based health promotion interventions. Concurrently scheduled with course C258. 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 nondjudgmental 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, sexual health, and HIV/AIDS, and the power of 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 use of new and unusual instruments. Investigation of musical possibilities via record store, Internet, and music library; environmental sounds and patterns; body (clapping, stepping, and singing); and hardware store (found objects). May be repeated for credit with fellow students in creative efforts and in presentations of research results. Concurrently scheduled with course C273. P/NP or letter grading.

174A. Projects in World Arts and Cultures. (2) Laboratory, four hours. Individualized major projects in 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, six hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit. P/NP or letter grading.

177SL. Taking Action: 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 organization and approved by instructor. May be repeated for maximum of 24 units. P/NP grading.

178. Advanced Private Instruction in World Arts and Cultures. (2 to 5) Tutorial, two hours. Preparation: 3.0 grade-point average in major. Limited to juniors/senior. Private or semiprivate instruction on one or more aspects of dance. Individual contract with faculty mentor required. May be repeated for maximum of 10 units. Individual contract required. P/NP or 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 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. (5-6) Lecture, four hours; outside study, 11 hours. Course 186A is requisite to 186B. Limited to senior World Arts and Cultures majors. Application of concepts and content from interdisciplinary major to individual projects. Methodologies may include criticism, comparative, ethnographic, and performance approaches. Lecture/seminar format with World Arts and Cultures faculty during first term; faculty-directed presentations of individual projects during second term. Senior honors project. S/U or letter grading.

C187. Indigenous Film. (5) (Same as American Indian Studies M187.) Seminar, four hours; discussion, one hour. Introduction to study of indigenous filmic images and representations, with focus on selected ethnographic, documentary, and fiction films, ranging from 1920 to present. 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, six hours. 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 maximum of 10 units. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in World Arts and Cultures. (2 to 5) 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. Culminating 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 arts, humanities, and social sciences. Analysis of contemporary debates concerning process 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 aestheticization 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 methodological frameworks and designs they encounter in their work. Identification 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 Corporeality. (4) Seminar, three hours; outside study, nine hours. Cross-cultural and interdisciplinary perspectives on human body. Topics include representations of body, body symbolism, embodiment of identity (including gender, race, ethnicity, and class identities), and analysis of dance and other somatic modes of performance. S/U or letter grading.
207. Ethnography of Performance. (4) Seminar, four hours; outside study, nine hours. Survey of methods and methodological issues in ethnographic study of performance in cultural context. Field documentation, participant observation, oral history and interview techniques, performative dimensions of ethnographic research, ethics, and politics of ethnographic representation. S/U or letter grading.

210. Ethnography of and as Colonialism. (4) Seminar, three hours. Beginning with 1530 debates over Indian humanism and moving to contemporary notions about and by indigenous peoples, focus on intersections of writing, colonialism, violence, and historiography in America. Exploration of relationship between 16th-century notions about race and postmillennial, Western, and academic practices of writing history. Development of critical stance on utility of postcolonial theories as such perspectives bear on anthropological and historical studies of indigenous religiosity. Regions include southwest Columbia, Orinoco Delta in Venezuela, Valley of Mexico, and several places throughout U.S. southwest, plains, and northeast. S/U or letter grading.

216. Analyzing Narrative and Oral Performance. (5) Lecture, four hours. Designed for graduate students. Exploration of ways of documenting individual narrators and audiences, including styles and repertoires; how narrators conceptualize and perform narrative discourse, impact of audience and situated event on both narrating and story, how experiences and values are communicated through narrative, modes of relating oral narrating, 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. Variable topics in interdisciplinary preliminary study of expressive culture, arts, and performance in social and historical context. May be repeated for credit with topic change. S/U or letter grading.

2229. 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 realm, child rearing practices, foodsharing, food and identity, food and its emotional significance, aversions and taboos, advertising, changing food habits, and American culture. Concurrently scheduled with course C129. 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 perspective of descriptive and interpretive value; emphasis on interaction of humans and their created environments. Emphasis on common, ordinary, anonymous, or vernacular nonbuilding artifacts, which are built and used by members of small-scale, traditional, and transitional communities around world. Concurrently scheduled with course CM130. S/U or letter grading.

C238. American Indian Arts in Performance. (4) Seminar, four hours. Acquisition of awareness 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 that brings a 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 regalia, masks, and utilitarian material culture, to investigate how such items play their part and come alive through movement, sound, spoken word, silence, and even absence. Concurrently scheduled with course C138. S/U or letter grading.

C239. Afro-Caribbean Ritual Arts. (4) Lecture, three hours. Designed for graduate students. Introduction to diasporic arts and artworlds with particular attention to Caribbean culture. Lectures, readings, and video material focus on performance of ritual and its expression in religious art. Concurrently scheduled with course C139. S/U or letter grading.

CM240. Healing, Ritual, and Transformation. (4) (Same as Gender Studies CM243.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Examination of role of healers, historically and within contemporary culture-specific contexts. Topics include healing and their Old World antecedents. Topics include carnival and carnivalesque and politics of celebration. Concurrently scheduled with course CM140. S/U or letter grading.

C241. Carnival and Festivity. (4) Lecture, three hours; fieldwork, one hour. Exploration of traditional calendrical, religious, and local festivals and related events in their cultural and historical contexts, with emphasis on Carnival and their Old World antecedents. Topics include carnival and carnivalesque and politics of celebration. 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 intellectuals as cultural workers operating in domains of ideology, aesthetics, and politics. Analysis of such key words as ideology, aesthetics, theory, art, politics, intervention, intellectuals, and artists. Concurrently scheduled with course C146. S/U or letter grading.

C250. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of major texts and approaches to writing ethnographically as key component of cross-cultural understanding. Examination of categorial notions of insider and outsider while also developing various perspectives on performed acts of identity formation. Concurrently scheduled with course C150. 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 through which gaze is determined and image economies negotiated. Topics include scopic regimes, aesthetics of streamlined design, and visuality and revolution. Concurrently scheduled with course C152. S/U or letter grading.

C258. Theorizing Arts Activism. (4) Seminar, three hours. Historicizing and theorizing of arts activism to provide context for concerted analysis, creation, and protest. Readings include theoretical texts and current performance histories. Consideration of particular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health. Arts activismivist workshops and related events include film, performance, and regulatory issues. Concurrently scheduled with course C158. S/U or letter grading.

C259. Art and Global Health. (4) Seminar, three hours. Exploration of interface of arts- and health-related methodologies in pursuit of improved health outcomes, using examples from international projects created and supported by UCLA 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 approaches to writing about arts, with eye toward shaping the public voice of public writers 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 C164. S/U or letter grading.

CM268. Beyond Academia: Making Art in Real Worlds. (4) (Formerly numbered C268.) (Same as Design M268.) 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 grantwriting. Concurrently scheduled with course CM168. S/U or letter grading.

C273. Sound Resources for Performance. (4) Lecture, three 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 soundscapes; musical patterns; songwriting, and (found) sound. Participant collaborate with fellow students in creative efforts and in presentations of research results. Concurrently scheduled with course C173. S/U or letter grading.

C280. Variable Topics in Video Production/Practic. (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 experiential film. Introduction 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 and critical forms of visual documentation. 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: apprenticeship personal employment as teaching affiliate, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and examination 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 activities. Professional decisions 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/grading practices, 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.

506A. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U or letter grading.

506R. Directed Study or Research in Hospital or Clinic. (2 to 8) Tutorial, to be arranged. S/U grading.

507. 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.


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 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-skill 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 Samueli 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 workshop 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, or 2 to satisfy the Entry-Level Writing requirement. Students are placed into the courses based on the American Writing Placement Exam (AWPE). Placement into ESLPE include (1) those who have not otherwise satisfied the Entry-Level Writing requirement by presenting transfer credit and (2) those held at the discretion of 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.

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 ESL courses. First-year undergraduate students are placed into the courses based on the AWPE. Some transfer students may be held for the ESL requirement. Students are placed into the courses based on the UCLA English as a Second Language Placement Exam (ESLPE) and may be held for up to three English Composition courses (1A, 1B, 1C). Transfer students who are required to sit for the ESLPE include (1) those who have not yet satisfied the intersegmental General Education Transfer Curriculum (IGETC) and (2) those held at the discretion of
of Transfer Admission. The ESLPE may be taken once only.

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 into the courses based on the UCLA English as a Second Language Placement Examination (ESLPE) and may be held for up to two ESL courses (300, 301).

The following students are exempt from the ESL requirement: (1) students who hold a bachelor’s or higher degree from a university in which English is the medium of instruction and (2) students with a score of 100 or better on the Test of English as a Foreign Language Internet-Based Test (TOEFL iBT) or at least a 7.5 overall band score on the International English Language Testing System (IELTS) examination. See International Applicants in the Graduate Study chapter.

Graduate Degree

Writing Programs offers a Graduate Certificate in Writing Pedagogy.

English as a Second Language

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 audorecording 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. Videorecording 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 variety 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 suitably prepared senior year for 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 multiple sources, providing proper citations, 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 giving business and marketing-focused presentations (both individual and group), handling audience questions, and running effective meetings. Videorecording 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.

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 professional online profiles. Offered in summer only. P/NP or letter grading.

28. English through Language, Culture, and Society. (4) Lecture, four hours. Survey of 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, media, environmental issues, and local/regional identities. 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 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.

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 prerequisite: course 33B 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. Offered in summer only. P/NP (undergraduates), S/U (graduates), or letter grading.

96. Student Research Program. (1-2) 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

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 models and curriculum-based instruction 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. Requisite: satisfaction of English as a Second Language requirement. Writing of texts that are characteristically 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.

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.


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. P/NP or letter grading.

197. Individual Studies in English as a Second Language. (4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study for undergraduate and graduate students who desire more advanced or specialized treatment of individual second language beyond those covered in current course offerings. Scheduled meetings to be arranged between faculty member and student. Assigned reading and
Graduate Courses

300. Intermediate Writing and Communication for International Graduate Students. (4) (Formerly numbered 200.) Lecture, five hours. Enforced requisite: proficiency demonstrated on English as a Second Language Placement Examination. Development of academic writing skills with focus on reading comprehension, vocabulary development, and analysis of discipline-specific research articles, with focus on writing to support fundamental composition techniques, grammar, and editing. S/U or letter grading.

301. High-Intermediate Writing and Communication for International Graduate Students. (4) (Formerly numbered 210.) Lecture, five hours. Enforced requisite: 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. Requisite: 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 journals. Emphasis on rhetorical strategies as well as stylistic and organizational conventions for presenting research-based arguments in disciplines including humanities, social sciences, and pure and applied sciences. Focus on grammar, vocabulary and types of writing in composition. S/U or letter grading.


3.00. Introduction to University Discourse. (4) Formerly numbered A.) Lecture, four hours. Requisite: 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.

1A. Intermediate Composition for Multilingual Students. (4) Lecture, five hours. Enforced requisite: 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 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. Requisite: 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 reading comprehension, vocabulary development, and fundamental composition techniques, with additional work on grammar and editing. Letter grading.

1C. Advanced Composition for Multilingual Students. (4) Lecture, four hours. Requisite: 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 reading comprehension, vocabulary development, and fundamental composition techniques, with additional work on grammar and editing. Letter grading.

2A. Approaches to University Writing. (4) Lecture, three hours. Requisite: course 1C or better. Examination of university-level texts. Emphasis on revision for argumentative coherence and effective style. Satisfies Entry-Level Writing requirement. Letter grading.

2B. Approaches to University Writing I. (4) Lecture, three hours. Requisite: course 1C or better. Examination of university-level texts. Emphasis on revision for argumentative coherence and effective style. Satisfies Entry-Level Writing requirement. Letter grading.

2C. Approaches to University Writing II. (4) Lecture, three hours. Requisite: course 1C or better. Examination of university-level texts. Emphasis on revision for argumentative coherence and effective style. Satisfies Entry-Level Writing requirement. Letter grading.

3. English Composition, Rhetoric, and Language. (5) Lecture, three hours. Enforced requisite: satisfactory completion of Entry-Level Writing requirement or course 2 or 2I (C or better). Introduction to writing process and skillful argument. Analysis of varieties of academic prose and writing of minimum of 20 pages of revised prose. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3D. English Composition, Rhetoric, and Language (Service Learning). (6) Lecture, three hours: fieldwork, two hours. Enforced requisite: satisfactory completion of Entry-Level Writing requirement or course 2 or 2I (C or better). Investigation of a university theme through writing and rhetoric. Critical examination of structures and institutions that promote asymmetrical power relations as well as responses of diverse groups to these inequalities. Original argument 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 20 hours of on-site service learning and development of critical thinking skills about diversity through classroom discussion focused on readings and service-learning experiences, as well as through reflective and analytical writing and research. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3E. English Composition, Rhetoric, and Language for International Students. (5) Lecture, five hours. Enforced requisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Rhetorical techniques and skillful expository writing. Analysis of varieties of academic prose and writing of integrations 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.

3L. English Composition, Rhetoric, and Language (Service Learning). (5) Lecture, five hours: fieldwork, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Rhetorical techniques and skillful expository writing. Analysis of varieties of academic prose and writing of integrations of multimodal elements. Minimum of 20 pages of revised text. Service learning component includes meaningful work with off-campus agency selected by instructor. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

5W. Literature, Culture, and Critical Inquiry. (5) Lecture, four hours. Enforced requisite: course 3. Use of literary analysis 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 required reading exercises. Satisfies Writing II requirement. Letter grading.

6W. Language, Culture, and Discourse. (5) Lecture, four hours. Enforced requisite: course 3. Study of structure and use of English and how it reflects social structure and cultural values. Readings in linguistic analysis, language acquisition, sociolinguistics, and pragmatics provide foundation as students analyze authentic language as it is used in private and public contexts. Minimum of 15 to 20 pages of revised writing required. Satisfies Writing II requirement. 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.

50. Writing Workshop. (2) Lecture, five hours. Devoted to writing workshops for students who have not yet enrolled in their first term at UCLA. Introduction to demands of university writing and often untaught conventions that govern it. Writing techniques developed to address specific writing tasks, 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 untested conventions that govern it. Address changes not only specify writing tasks as time examinations, effective e-mails, and college papers, but also broad communication concerns such as classroom participation and oral presentations. P/NP grading.

89H. 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.

89HG. 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 assume responsibility for good academic standing in course and are 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

100W. Interdisciplinary Academic Writing. (5) Lecture, four hours. Requisite: course 3 or 3H or English as a Second Language 36. Designed for sophomores/juniors/seniors. 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. Satisfies Writing II requirement. Letter grading.

100WD. Interdisciplinary Academic Writing. (5) Lecture, four hours. Requisite: course 3, 3D, 3DS, or 3E. 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. Satisfies Writing II requirement. Letter grading.

110. Writing Adjunct. (4) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement; course 3 or 3H. Students must be concurrently enrolled in course offered in conjunction with course 110. Limited to 20 students. Designed as adjunct 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. Survey of topics in English linguistics of 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; contribution of English language study to teaching of reading, writing, spelling, and literature. P/NP or letter grading.


123. Information Literacy and Research Skills. (1) Lecture, one hour. Preparation: satisfaction of Writing I requirement. Designed to help students become information literate. To identify, locate, evaluate, and use print and electronic information effectively and ethically. Closely interwoven with Writing Programs courses that have information/research-related assignments. P/NP or letter grading.

129A-129D. Academic Writing in Disciplines. (4–4–4) Lecture, four hours. Designed for juniors/seniors. Advanced study of writing conventions in specific disciplinary areas, with focus on analysis and development of writing expertise in common discursive forms, stylistic patterns, and research practices in given discipline. Each course may be taken independently for credit. P/NP or letter grading. 129A. Literature; 129B. Science; 129C. Physical and Life Sciences; 129D. Fine Arts.

130A. Professional Writing: Digital Writing and Web Literacy. (5) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing requirement; course 3. Emphasis on writing for digital environments such as websites, blogs, newsletters, and social media. Common professional settings for these skills include journalism, political campaigns, internet marketing, and corporate communication. P/NP or letter grading.

130B. Professional Writing: Business and Entrepreneurship. (5) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing requirement, course 3. Emphasis on business and visual communication skills for entrepreneurial settings. Common tasks including pitching idea, seeking funding for startup, or promoting product or service; P/NP or letter grading.

130C. Professional Writing: Science and Technology. (5) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing requirement; course 3. Emphasis on communicating technical concepts and scientific research findings in clear and accessible way to non-specialist audiences. P/NP or letter grading.

130D. Professional Writing: Nonprofits and Public Engagement. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Development of ability to write persuasively and effectively in both nonprofit and public sectors. Writing genres include mission and vision statements, grant proposals, public service announcements, and outreach campaigns. P/NP or letter grading.

130E. Professional Writing: Arts and Entertainment. (5) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing requirement, course 3. Emphasis on the ability to write professionally about creative material and performances in areas such as film, television, theater, music, art/design, podcasts, and video games. Writing genres include critical reviews, reception, art exhibition, curatorial, treatments, and profiles. P/NP or letter grading.

131A-131C. Specialized Writing. (4–4–4) 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 sophistication 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. 131A. Law and Politics; 131C. Medicine and Public Health; 131D. Media and Communications.

131B. 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 sophistication 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. (5) Formerly numbered 132D. Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Intensive study of rhetoric and writing within one or more professional domains. 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. 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. Specialized topics in professional writing exploring current developments, issues, or debates within art, entertainment, social media, or video game industries. May be repeated for maximum of 10 units. P/NP or letter grading.

133. Topics in Writing for Multimedia Environments. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Special topics in professional writing exploring current career writing topics, or debates within specific field of science or technology. May be repeated for maximum of 10 units. P/NP or letter grading.

136. Practical Writing and Editing. (5) Formerly numbered 136A). Lecture, four hours. Requisite: satisfaction of Entry-Level Writing requirement, course 3. Special topics in professional writing exploring current career writing topics, or debates 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, course 3. Emphasis on careful preparation, rehearsal, and delivery of professional presentations including design of effective visuals in variety of multimodal forms. Student performances video-captured for extensive self-feedback, and instructor feedback. 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 a specific creative writing topic, that may include mixed genres, playwriting, screenwriting, literary nonfiction, or others. Enrollment in more than one section per term not permitted. May be repeated 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 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 in an area of design, development, implementation, and evaluation of second language instruction programs. P/NP or letter grading.

Graduate Courses

300. Teaching English. (4) Lecture, four hours. Required of candidates for single subject credential in English. May be repeated for credit. P/NP grading.

351. Teaching Apprentices Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personelle employment as teaching assistant, associate, or fellow. Preparation: understanding of undergraduate education and research in English, literature and linguistics, and theories of pedagogy. Required of all graduate students. May be repeated for credit. S/U grading.

401. Current Issues in University Writing Pedagogy. (4) Formerly numbered 401HC. Seminar, three hours. Required of all graduate students. May be repeated for credit. S/U grading.

495. Supervised Teaching of Writing in Disciplines. (2) Formerly numbered 495CL. Seminar, two hours. Enforced requisite: 401CL. Required of all teachers seeking 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.

495L. Teaching Preparation Seminar: Writing for Engineers. (4) Formerly numbered 495LE. (Same as Engineering 495L). Seminar, two and one-half hours. Required of all 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 creating assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

495S. Supervised Teaching of Writing for Engineers. (2) Formerly numbered 495SE. (Same as Engineering 495SE). Seminar, two months. Required of all 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 creating assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

495T. Teaching Preparation Seminar: Writing-Intensive Seminar Development. (2) Seminar, two hours. Limited to graduate students. Required of all students teaching in their first quarter with Clusters. Training focused on student-centered pedagogy, reflection of student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized teaching issues that may occur in Clusters contexts. Practical concerns of lesson planning, discussion leading, responding to and grading essays, and conducting peer reviews and conferences. S/U grading.

495N. Teaching Preparation: Writing-Intensive Seminar Development. (2) Seminar, two hours. Limited to graduate students. Required of all students teaching in their first quarter with Clusters. Training focused on student-centered pedagogy, reflection of student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized teaching issues that may occur in Clusters contexts. Practical concerns of lesson planning, discussion leading, responding to and grading essays, and conducting peer reviews and conferences. S/U grading.

495P. Supervised Teaching of Clusters Seminar. (3) Seminar, two hours. Limited to graduate students. Required of all students teaching in their first quarter with Clusters. Training focused on student-centered pedagogy, reflection of student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized teaching issues that may occur in Clusters contexts. Practical concerns of lesson planning, discussion leading, responding to and grading essays, and conducting peer reviews and conferences. S/U grading.

495M. Teaching Preparation Seminar: Clusters. (2) Seminar, two hours. Limited to graduate students. Required of all students teaching in their first quarter with Clusters. Training focused on student-centered pedagogy, reflection of student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized teaching issues that may occur in Clusters contexts. Practical concerns of lesson planning, discussion leading, responding to and grading essays, and conducting peer reviews and conferences. S/U grading.
responding to and grading essays, and conducting peer reviews and conferences. May be repeated for credit. 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.
Appendixes

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 any of these categories which results in injuries to the student by contacting the Office of the Dean of Students by e-mail, or in person at 1104 Murphy Hall. Refer to UCLA Procedure 230.1, also available in 1104 Murphy Hall, for more information and procedures.

Inquiries regarding the University student-related nondiscrimination policies may be directed to the Office of the Dean of Students by e-mail, in person at 1104 Murphy Hall, or by phone at 310-206-3417. An assistant dean is available at this office to support students who need information or assistance in filing a discrimination complaint.

In accordance with applicable federal and state laws and University policy, including Title II of the Americans with Disabilities Act, Section 504 of the Rehabilitation Act of 1973, and University of California policy PACAOS-20 (Policy on Nondiscrimination), UCLA does not discriminate on the basis of physical or mental disability. Retaliation for participation in University procedures relating to complaints of discrimination is also prohibited. This nondiscrimination policy covers admission, access, and treatment in University programs and activities. UCLA is committed to prohibiting disability-based discrimination and harassment, and retaliation, performing a prompt and equitable investigation of complaints alleging discrimination, and properly remedying discrimination when it occurs. Examples of discrimination against students with disabilities include, but are not limited to: failure to engage with the student in a discussion of reasoning accommodations; failure to implement approved reasonable accommodations such as the provision of notes or extra time on tests; and exclusion of a qualified student from any course, course of study, or other educational program or activity because of the student’s disability. Disability-based harassment is conduct which is sufficiently severe, pervasive, or persistent so as to interfere with or limit an individual’s ability to participate in or benefit from the services, activities, or opportunities offered by the University.

UCLA has issued Procedure 230.2: Student Grievances Regarding Violations of Anti-Discrimination Laws or University Policies on Discrimination on Basis of Disability. Students may grieve any action that they believe discriminates against them on the basis of disability by contacting the Office of the Dean of Students by e-mail, or in person at 1104 Murphy Hall. Refer to UCLA Procedure 230.2 for more information and procedures.

Title IX prohibits sex discrimination, including sexual harassment and sexual violence, in any education program or activity receiving federal financial assistance. Inquiries regarding the application of Title IX may be directed to the Title IX Director, 2255 Murphy Hall, 310-206-3417, or the U.S. Department of Education Office for Civil Rights.

Student Conduct Policies

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.

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 off 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 or the forgery, alteration, or misuse of any University document, record, key, electronic device, or identification.

In determining whether or not to exercise off-campus jurisdiction, 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:

102.01: 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. 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 grading; 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. Falsification 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 of 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 includes, 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
102.01d: 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.

102.04a: Theft. Theft includes taking without expressed 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: University 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 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, or 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, 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 ex-
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 under the influence was given alcohol without his or her knowledge and permission.

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, 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 may be overheard or recorded.

These provisions do not extend to public events or discussions, or 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. These 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.
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 in-jure 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 mis-conduct. 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 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)

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. 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 (1) they are U.S. citizens, (2) they are permanent residents or other immigrants, or (3) they are nonimmigrants who are not precluded from establishing a domicile in the U.S. from permanent residents or other immigrants, or (3) persons who are adult students (at least 18 years of age) 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.

Who Is a Resident?

Persons who are adult students (at least 18 years of age) may establish residence for tuition purposes in California if (1) they are U.S. citizens, (2) they are permanent residents or other immigrants, or (3) they are nonimmigrants who are not precluded from establishing a domicile in the U.S. from permanent residents or other immigrants, or (3) persons who are adult students (at least 18 years of age) 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.

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 resident status 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 begin residing 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) was a resident of California who 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 postsecondary 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.
Duty immediately after having served in California, members of the Armed Forces on active duty and veterans (and their dependents) who are employed by a school district in a full-time faculty position are not eligible for the exemption.

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

Members of the U.S. Armed Forces stationed in California are entitled to a resident classification unless their assignment to California is for the purpose of attending a state-supported institution of higher education. They must provide the residence deputy on campus 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).

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 or 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. Students must be continuously enrolled at the University, notwithstanding a subsequent change in the U.S. Armed Forces member’s permanent duty station to a location outside of California.

Child, Spouse, or Registered Domestic Partner of Faculty Member

To the extent funds are available, if students are an unmarried dependent child under age 21, spouse, or registered domestic partner of a member of the faculty who is a member of the Academic Senate, they may be entitled to a resident classification based on the federal Higher Education Opportunity Act of 2008. Under this Act, students who are the spouse or domestic partner of a member of the University faculty who is a member of the Academic Senate, they may be entitled to a waiver of nonresident supplemental tuition. Confirmation of the faculty member’s membership on the Academic Senate must be secured each term this waiver is granted.

Child, Spouse, or Registered Domestic Partner of University Employee

Students may be entitled to resident classification if they are an unmarried dependent child, spouse, or registered domestic partner of a full-time University employee whose assignment is outside California (e.g., University of California Washington, DC Center). Their parent’s, spouse’s, or registered domestic partner’s employment status with the University must be ascertained each term.

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.

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 waiver of nonresident supplemental tuition 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 exempt from nonresident supplemental tuition.

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 exempt from nonresident supplemental tuition.

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 exempt from nonresident supplemental tuition.

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 of 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.
Recipients of the Congressional Medal of Honor and Their Children under Age 28

Undergraduate 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. Recipients must be California residents, and students must be under age 28. Students’ annual income must not exceed the national poverty level. If the recipient was a parent who died, the parent must have been a California resident at the time of death.

Dependents or Wards of State through California Child Welfare System

Notwithstanding any other provisions, students who reside in California and are 19 years of age or under at the time of enrollment, 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 and are no longer being served either due to emancipation or aging out of the system, shall be entitled to a resident classification as long as they remain continuously enrolled.

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. Continue to use a California permanent address in all records—educational, employment, military, etc.
2. Continue to satisfy California tax obligations. If students are claiming California residence, they are liable for payment of income taxes on their total income from the day they establish their residence in the state, including income earned in another state or country.
3. Retain California voter registration and vote by absentee ballot.
4. Maintain a California Driver License and vehicle registration. If it is necessary to change the driver’s license or vehicle registration, students must change them back within the time prescribed by law.

Petition for Residence Classification

Students may obtain a petition from the Registrar’s website for 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 Providing Documentation

If additional documentation is required for residence classification but is not readily accessible, students are allowed until the end of the applicable term to provide it.

Incorrect Classification

Students who were incorrectly classified as residents are subject to nonresident classification and to payment of all nonresident tuition 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. Resident students who become nonresidents must immediately notify the residence deputy.

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 Office of the General Counsel only on the grounds and within the deadline specified below.

1. The decision to classify a student as a nonresident for purposes of tuition 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.

Apartment Deadline

The 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 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 of the information requested on the Statement of Legal Residence form is required for determining whether or not students are legal residents 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 residency 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 Standing Order 110.2; Regents policies 3105 and 3106). Students have the right to inspect University records containing the residence information requested on the 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.

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.

Professional Schools

Students attending the schools of Dentistry, Law, Management, Medicine, and UCLA Extension are covered by criteria established by the respective school.

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 on 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 back 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.

Policy on Alternate Examination Dates
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 student’s 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 in 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.

A copy of the federal and state laws, University policies, and the print UCLA Telephone Directory may be inspected in the office of the Information Practices Coordinator, 500 UCLA Wilshire Center. Information concerning students’ hearing rights may be obtained from that office and from the Office 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, they may opt to use a sample of evidence that they have chosen to archive, and they may grant permission for the Undergraduate Education Division, the Graduate

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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. Printed copies are available by calling 310-825-1491. The report can be accessed online.

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’s 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 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.
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 hand in hand 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 common sense 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 assigned to the residence halls.

UCPA-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 of the campus buildings to be open 24 hours. Because the campus is so large and adjacent to the greater Los Angeles community, 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 and aware of their surroundings and exercise good common-sense safety precautions. Anyone parking on campus should remember to lock their vehicles and consider investing in locking devices and/or alarms. Take advantage of all of the safety services provided by the UCLA and UCPD. 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.

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

Governor of California
Gavin C. Newsom
Lieutenant Governor of California
Eleni T. Kounalakis
Speaker of the Assembly
Anthony Rendon
State Superintendent of Public Instruction
Tony K. Thurmond
President of the Alumni Associations of the University of California
William Um (2020)

Vice President of the Alumni Associations of the University of California
Christine Simmons (2020)
President of the University
Janet Napolitano

Appointed Regents

Maria Anguiano (2028)
Richard C. Blum (2026)
Laphonzia Butler (2030)
Michael Cohen (2030)
Gareth Elliott (2025)
Cecilia Estolano (2022)
Howard Peter Guber (2029)
George Kieffer (2021)
Sherry L. Lansing (2022)
Richard Leib (2026)
Hadi Makarechian (2020)
Eloy Ortiz Oakley (2024)
Lark Park (2029)
John A. Pérez (2024)
Richard Sherman (2025)
Jonathan Sures (2020)
Charlene Zettel (2021)
Hayley Weddle, Student Regent (2020)

Faculty Representative to the Board of Regents
Kum-Kum Bhavnani (2018-20)

Staff Adviser to the Board of Regents
Kate Klimow (2019-20)

Officers of the Regents

President, Board of Regents
Gavin C. Newsom
Chair, Board of Regents
John A. Pérez
Vice Chair, Board of Regents
Cecilia Estolano
Chief Investment Officer
Jagdeep Singh Bachher
General Counsel
Charles F. Robinson
Secretary and Chief of Staff
Anne Shaw
Senior Vice President—Chief Compliance and Audit Officer
Alexander Bustamante

Office of the President

President of the University
Janet Napolitano
Provost and Executive Vice President—Academic Affairs
Michael Brown
Executive Vice President—Chief Financial Officer
Paul Jenny, Interim
Executive Vice President—Chief Operating Officer and Chief of Staff to the President
Rachael Nava
Executive Vice President—UC Health
John D. Stobo
Senior Vice President—Ethics, Compliance, and Audit Services
Alexander Bustamante
Senior Vice President—External Relations and Communications
Claire Holmes
Vice President—Agriculture and Natural Resources
Glenda Humiston
Vice President—General Counsel
Charles F. Robinson
Vice President—Human Resources
Dwaine B. Duckett
Vice President—Information Technology Services and Chief Information Officer
Tom Andriola
Vice President—Institutional Research and Academic Planning
Pamela Brown
Vice President—Investments and Chief Investment Officer
Jagdeep Singh Bachher
Vice President—National Laboratories
Craig Leasure, Interim
Vice President—Research and Graduate Studies
Arthur B. Ellis
Vice President—Student Affairs
Yvette Guillatt, Interim
Associate Vice President—Federal Government Relations
Christopher Harrington
Associate Vice President—State Government Relations
Kieran Flaherty
Chancellors of the Campuses

Chancellor at Berkeley
Carol T. Christ
Chancellor at Davis
Gary S. May
Chancellor at Irvine
Howard Gillman
Chancellor at Los Angeles
Gene D. Block
Chancellor at Merced
Dorothy Leland
Chancellor at Riverside
Kim A. Wilcox
Chancellor at San Diego
Pradeep K. Khosla
Chancellor at San Francisco
Sam Hawgood
Chancellor at Santa Barbara
Henry T. Yang
Chancellor at Santa Cruz
George W. Blumenthal

UCLA Administrative Officers

Chancellor
Gene D. Block, PhD
Executive Vice Chancellor and Provost
Emily A. Carter, PhD
Administrative Vice Chancellor
Michael J. Beck, MBA
Vice Chancellor—Academic Personnel
Michael S. Levine, PhD
Vice Chancellor and Chief Financial Officer
Gregg B. Goldman, MBA
Vice Chancellor—Equity, Diversity, and Inclusion
Jerry Kang, JD
Vice Chancellor—External Affairs
Rhea Turteltaub, BA
Vice Chancellor—Health Sciences
John C. Mazziotta, MD, PhD
Vice Chancellor—Legal Affairs
Louise O. Nelson, JD
Vice Chancellor—Research
Roger M. Wakimoto, PhD
Vice Chancellor—Student Affairs
Monroe Gorden, Jr., JD
Vice Provost—Enrollment Management
Youlonda Copeland-Morgan, MBA
Vice Provost—Graduate Education and Dean of Graduate Division
Robin L. Garrell, PhD
Vice Provost—Information Technology
James F. Davis, PhD
Vice Provost—Institute of American Cultures
David K. Yoo, PhD
Vice Provost—Interdisciplinary and Cross-Campus Affairs
Timothy F. Brewer, MD, MPH
Vice Provost—International Studies and Global Engagement
C. Cindy Fan, PhD
Vice Provost—Undergraduate Education
Patricia A. Turner, PhD
University Librarian
Virginia Steel, MA

University Registrar
Frank Y. Wada, PhD
Dean of Continuing Education and University Extension
Vacant

Deans of UCLA College and Schools

School of the Arts and Architecture
Brett B. Steele, AA Dipl
School of Dentistry
Paul H. Krebbach, DDS, PhD
Graduate School of Education and Information Studies
Marcelo M. Suárez-Orozco, PhD
Henry Samueli School of Engineering and Applied Science
Jayathi Y. Murthy, PhD
School of Law
Jennifer L. Mnookin, JD, PhD
College of Letters and Science
Humanities Division
David C. Schaberg, PhD
Life Sciences Division
Victoria L. Sork, PhD
Physical Sciences Division
Miguel A. García-Garibay, PhD
Social Sciences Division
Darnell M. Hunt, PhD
Undergraduate Education Division
Patricia A. Turner, PhD, Senior Dean/ Vice Provost
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, Interim
School of Theater, Film, and Television
Tori E. Schwartz, MA

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
Shapiro Directorship at the Fowler Museum
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 Endowed 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

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 491 endowed chairs that have been approved by the Office of the President of the University of California, as follows:

Henry Samueli School of Engineering and Applied Science
L.M.K. Boelter Chair in Engineering
Vijay K. Dhir Chair in Engineering
Englekirk 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
Evelyn 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 Science/Electrochemistry
Ronald and Valerie Sugar Dean of Henry Samueli School of Engineering and Applied Science
Ronald and Valerie Sugar Endowed Chair in Engineering
Symantec 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
Volgenau Chair for Engineering Excellence
Volgenau Chair for Engineering Innovation
Volgenau Endowed Chair in Engineering
Wintek Endowed Chair in Electrical Engineering
Neria and Manizheh Yomtoubian Endowed Chair in Cancer and Risk Sciences

School of Law
Norman Abrams Endowed Chair in Law
Omar and Azmeralda Alf 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
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
Robert Henigson Endowed Chair in Legal Ethics
Pete Kameron Endowed Chair in Law
Pete Kameron Chair in Law and Social Justice
Richard C. Maxwell Chair in Law
McDonald/Wright Chair in Law
Arjay and Frances Fearing Miller Chair in Law
Susan Westerberg Prager Endowed Chair in Law
Honorable Harry Pregerson Endowed Chair in Law
David G. and Dallas P. Price Chair in Law
Promise Institute Chair in Comparative and International Law
Promise Institute Chair in Human Rights
Michael H. Schill Endowed Chair in Law
Gary T. Schwartz Endowed Chair in Law
Security Pacific Bank Chair
Shirley and Ralph Shapiro Endowed Chair in Environmental Law
Jonathan D. Varat Endowed Chair in Law
William D. Warren Chair in Law
Frank G. Wells Endowed Chair in Environmental Law
Stephen Yeazell Endowed Chair in Law

College of Letters and Science
Armen A. Alchian Chair in Economic Theory
Maurice Amado Chair in Sephardic Studies
Jahangir and Eleanor Amuzegar Chair in Iranian Studies
Joyce Oldham Appleby Endowed Chair of America in the World
Thomas M. Asher Endowed Chair in Microbiology
Marilyn Beaudry-Corbett Endowed Chair in Mesoamerican Archaeology
Mani L. Bhaukik Presidential Endowed Chair in Theoretical Physics
Paul D. Bayer Professorship in Molecular Biology and Biochemistry
Henry J. Bruman Chair in German History
Dr. E. Bradford Burns Chair in Latin American Studies
Robert N. Burr Endowed History Department Chair
Edward W. Carter Chair in European Art
James and Carol Collins Chair in College of Letters and Science
Brian P. Copenhaver Chair
Lloyd E. Cotsen Chair in Archaeology
D.J. and J.M. Cram Chair in Organic Chemistry
Lore and Gerald Cunard Chair in UCLA/Getty Conservation Program
Charles E. Davidson Endowed Chair in Economics
Charles E. Davidson Endowed Term Chair in Economics
De Logi Chair in Biological Sciences
Donald R. Dickey Chair in Vertebrate Biology
Edward A. Dickson Emeritus Professorship
A. Richard Diebold, Jr., Endowed Chair
Howard and Astrid Preston Term Chair in Developmental Immunology
Presidential Chair in Medical Chemistry
Presidential Chair in Molecular Cell Biology
President's Chair in Developmental Immunology
Howard and Astrid Preston Term Chair in Astrophysics
Dr. Myung Ki Hong Endowed Chair in Polymer Science
Walter Hops Chair in Modern and Contemporary Art
Richard Hovannisian Chair in Modern Armenian History
Marcia H. Howard Term Chair in Literary Studies
Michael and Alice Jung Endowed Chair in Medicinal Chemistry and Drug Discovery
Sady and Ludwig Kahn Chair in Jewish History
Sady and Ludwig Kahn Directorship of the UCLA Center for Jewish Studies
Penny Kanner Endowed Chair in Women's Studies
Renée and David Kaplan Presidential Endowed Chair in Philosophy
Fred Kavli Chair in Nanosystems Sciences
Kershaw Chair in Ancient Eastern Mediterranean Studies
Ibn Khalidun Endowed Chair in World History
Leon and Joanne V.C. Knopoff Chair in Physics and Geophysics
Alexander and Renee Kolin Endowed Professorship in Molecular Biology and Biophysics
Venu and Ana Kottamrajju Endowed Chair in Economics
Lauren B. Leichtman and Arthur E. Levine Astrophysics Endowed Chair
Madeleine L. Letessier Chair in French and Francophone Studies
Thomas E. Lifka Chair in History
Vladimir and Lydia Markov Chair in Russian Literature
John McCutagge Career Development Chair
Dorothy L. Meier Social Equities Chair
Anne K. Mellor Presidential Chair in Women's Writing
Ronald J. Mellor Chair in Ancient History
Sherie and Donald Morrison Chair in Immunology
Sherie L. Morrison Chair in Microbiology, Immunology, and Molecular Genetics
Morrison Family Endowed Chair
John Muir Memorial Endowed Chair
Franclin D. Murphy Chair in Italian Renaissance Studies
Narekatsi Chair in Armenian Studies
Gary B. Nash Endowed Chair in United States History
Waldo W. Neikirk Term Chair
LeRoy Neiman Term Chair
Nicholl Family Endowed Chair in History
1939 Society Samuel Goetz Chair in Holocaust Studies
Joan Palevsky Chair in Classics
Pourdavoud Endowed Director's Chair in Chemistry
Presidential Chair in Institute of the Environment
Presidential Chair in Medicinal Chemistry
Presidential Chair in Modern European History
Presidential Chair in Molecular Cell Biology
President's Chair in Developmental Immunology
Howard and Astrid Preston Term Chair in Astrophysics
Pritzker Chair in Environment and Sustainability
Pritzker Chair in Environment and Sustainability II
Hans Reichenbach Chair in Scientific Philosophy
Peter Reil Chair in European History (1450 to Modern)
Howard Reiss Career Development Chair
John Bartley Dillon, MD, Endowed Chair in Anesthesiology
Roy and Carol Doumani Chair
Roy and Carol Doumani Chair in Urological Oncology
Dumont-UCLA Chair in Transplantation Surgery
Max Factor Family Foundation Chair in Nephrology
Charles Kenneth Feldman Chair in Ophthalmology
Elsie and Isaac Fogelman Endowed Chair in Pediatric Neurology
Dr. Daniel X. Freedman Administrative Chair in Academic Psychiatry
Joaquin M. Fuster Chair in Cognitive Neuroscience
David Geffen Chair in Informatics
David Geffen Chair in Medical Research
David Geffen School of Medicine Chair in Neurosciences
Laraine and David Gerber Chair in Ophthalmology
Maggie G. 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
Holt and Jo Hickman Endowed Chair 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 Kanaa, 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
Sidney Kimmel Endowed Chair in Transplantation Surgery
Karl Kirchgessner Foundation Chair in Vision Science
Arnold W. Klein, MD, Chair in Dermatology
George F. Kneller Chair in Family Medicine
Kokolotrones Chair in Ophthalmology
John J. Kuiper Chair in Nephrology and Renal Transplantation
Grace and Walter Lantz Endowed Chair in Ophthalmology
Lya 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
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 Mazzotti Endowed Chair in Neurology
John Mazzotti, MD, PhD, Term Chair in Medicine
Henry Alvin and Carrie L. Meinhardt Chair in Kidney Cancer Research
Sherman M. Mellinkoff Distinguished Professor in Medicine Chair
Joanne and George Miller and Family Endowed Chair
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
James H. Nicholson Chair in Pediatric Cardiology
Mary Oakley Foundation Chair in Neurodegenerative Diseases
Frances M. O'Malley Administrative Chair in Neuroscience History
Oppenheimer Brothers Chair
Helga and Walter Oppenheimer Endowed Chair in Orthopaedic Oncology
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
Penelope Donnelly Foundation Endowed Term Chair in Pediatrics
Frances and Albert Piansky Chair in Anatomy
Guita Pierpont Endowed Chair in Interstitial 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
Sholomo 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 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
Ethan Scheibel Chair in Neuroscience
William Scheibel Chair in Neuroscience
Terry Semel Chair in Alzheimer’s Disease Research and Treatment
Garry Shandling Chair in Alzheimer’s Disease Research and Treatment
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
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
Smotrich 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
Norman 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 Global AIDS Prevention and Policy Research
W. Eugene Stern Chair in Neurosurgery
E. Richard Steihm 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
Dr. George Tarjan 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 Jolyon West Chair in Psychiatry
Wildie 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 Mitchell 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
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 Design
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 Studies
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

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)
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<td>1991</td>
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<td>Edward G. Berenson</td>
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In spring of 1985, the Office of Instructional Development began sponsorship of awards to three instructors who are not members of the Academic Senate. This category includes lecturers, and adjunct and clinical faculty members. All non-Academic Senate faculty members who are nominated by their departments are eligible. 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. In 1998 the program was renamed the Luckman Distinguished Teaching Awards Program for Non-Academic Senate Faculty Members in recognition of the significant contributions these faculty members make to the University community.

Non-Academic Senate Recipients

In spring of 1985, the Office of Instructional Development began sponsorship of awards to three instructors who are not members of the Academic Senate. This category includes lecturers, and adjunct and clinical faculty members. All non-Academic Senate faculty members who are nominated by their departments are eligible. 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.

1985
L. Geoffrey Cowan (Communication Studies)
Mary Elizabeth Perry (History)
Linda Diane Venis (English)

1986
David Cohen (Mathematics)
Johanna Harris-Heggie (Music)
Paul Von Blum (Interdisciplinary)

1987
Carol D. Berkowitz (Pediatrics)
Jeffrey I. Cole (Communication Studies)
Cheryl Giuliani (Writing Programs)

1988
Jeanne Gunner (Writing Programs)
Art Huffman (Physics and Astronomy)
David G. Kay (Computer Science)

1989
S. Scott Barchy (History)
Bonnie Lisle (Writing Programs)
Kenneth R. Pfeiffer (Civil Engineering, Psychology)

1990
Lisa Gerrard (Writing Programs)
Andres Durstenfeld (Biology)
Dorothy Phillips (Physiological Science)

1991
Marde S. Gregory (Speech)
Betty A. Luceigh (Chemistry and Biochemistry)
Cheryl Pfotl (Writing Programs)

1992
Janet Goodwin (Applied Linguistics, Teaching English as a Second Language)
Janette Lewis (Writing Programs)
Yihua 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 Tangerlini (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 Leddy (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 Yownai (Dentistry)

2010
Patrick D. Goodman (Law)
Amy H. Kaji (Medicine)
Rory M. Kelly (Film, Television, and Digital Media)
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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.

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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 Chicana 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)

UCLA University Professors

University Professors are appointed by the Regents of the University of California at the recommendation of the president.

M. Frederick Hawthorne, University Professor Emeritus, Los Angeles, Chemistry and Biochemistry

Owen N. Witte, University Professor, Los Angeles, Microbiology, Immunology, and Molecular Genetics
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