# Academic Calendars

## 2018 – 2019

### Fall Quarter 2018
- Quarter begins: September 24
- Instruction begins: September 27
- Veterans Day holiday: November 12
- Thanksgiving holiday: November 22-23
- Instruction ends: December 7
- Common final examinations: December 8-9
- Final examinations: December 10-14
- Quarter ends: December 14
- Christmas holiday: December 24-25
- New Year's holiday: December 31-January 1
- Winter campus closure: TBD

### Winter Quarter 2019
- 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 2019
- César Chávez holiday: March 27
- Instruction begins: April 1
- Memorial Day holiday: May 27
- Instruction ends: June 7
- Common final examinations: June 8-9
- Final examinations: June 10-14
- Quarter ends: June 14
- Commencement ceremonies: June 14-16

### Spring Quarter 2019
- Quarter begins: March 27
- César Chávez holiday: March 29
- Instruction begins: April 1
- Memorial Day holiday: May 27
- Instruction ends: June 7
- Common final examinations: June 8-9
- Final examinations: June 10-14
- Quarter ends: June 14
- Commencement ceremonies: June 14-16

## 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
- 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

## Online Publications
This UCLA General Catalog is published annually online. See the Registrar's website 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.
UCLA
General Catalog
2018-19
From the UCLA Chancellor

This Catalog describes the almost endless academic choices available to you at UCLA. Choose from 5,000 courses each term, 134 bachelor programs, 129 master’s and professional programs, 129 doctoral and professional programs, and 93 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 2018-19 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; freshman Clusters, which engage students in yearlong, team-taught interdisciplinary study of timely topics; and advanced research opportunities.

Our campus is a vibrant community made up of forward-thinking achievers who think outside traditional academic boundaries and share an exuberant sense of possibility. The UCLA experience prepares leaders who go on to excel all over the world.

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

Gene D. Block
Chancellor
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## Majors and Degrees

### College of Letters and Science

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

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

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

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

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

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

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

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

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

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

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

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

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

**Communication Department**
Communication Studies ................................. MA

**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

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

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

**Environment and Sustainability, Institute of the Center for Interdisciplinary Instruction**
Environment and Sustainability ........................ MS, PhD
Environmental Science ..................................... BS
Environmental Science and Engineering ................ DEnv

**French and Francophone Studies Department**
French ......................................................... BA
French and Francophone Studies ....................... MA, CPhil, PhD
French and Linguistics ................................. BA

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

**Geography Department**
Geography .................................................... BA, MA, CPhil, PhD
Geography/Environmental Studies ...................... BA
Germanic Languages Department
  Germanic Languages ......................... 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
  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 .......................... 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
  Arabian Studies ........................... BA
  Islamic Studies ........................... MA, CPhil, PhD
  Jewish Studies ............................ BA
  Middle Eastern Studies ..................... BA
  Near Eastern Languages and Cultures .... MA, CPhil, PhD

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

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

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

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

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

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

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

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
Statistics .............................................. BS, MS, CPhil, PhD

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

David Geffen School of Medicine
Biological Chemistry Department
Biological Chemistry ........................................... MS, PhD

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

Human Genetics Department
Human Genetics .............................................. MS, PhD

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

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

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

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

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

Pathology and Laboratory Medicine Department
Cellular and Molecular Pathology ............... MS, PhD

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

Graduate School of Education and Information Studies
Education Department
Education .................................................. MA, MEd, EdD, PhD
Educational Administration ......................... Joint EdD with UCI
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

Engineering Schoolwide Programs
Engineering ................................................... MEng, 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 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 ...................................... MFE
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
  Civic Engagement
  Classical Civilization
  Cognitive Science
  Comparative Civilization
  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 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
Mexican Studies
Middle Eastern Studies
Neuroscience
Philosophy
Portuguese
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
Teaching Secondary Mathematics

Henry Samueli School of Engineering and Applied Science
Bioinformatics
Environmental Engineering
Herb Alpert School of Music
Music Industry
Musicology
John E. Anderson Graduate School of Management
Accounting
Entrepreneurship
Jonathan and Karin Fielding School of Public Health
Public Health
Meyer and Renee Luskin School of Public Affairs
Gerontology
Public Affairs
Urban and Regional Studies
School of the Arts and Architecture
Visual and Performing Arts Education
School of Theater, Film, and Television
Film, Television, and Digital Media
Theater

Computing Specializations
These departments in the College of Letters and Science offer a computing specialization to some or all majors. See the individual department section for details.
Chemistry
Communication
Ecology and Evolutionary Biology
Linguistics
Mathematics
Mathematics/Economics
Molecular, Cell, and Developmental Biology
Psychology
Sociology

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

Concurrent Degrees
Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.
African American Studies Interdepartmental MA/Law JD
African Studies Interdepartmental MA/Public Health MPH
American Indian Studies Interdepartmental MA/Law JD
Architecture MArch 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. 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 four academic divisions: humanities, life sciences, physical sciences, and social sciences; and divisions for graduate and undergraduate education—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 130 disciplines; graduate students may earn one of 129 master/professional and 129 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 2016-17 UCLA received $1.06 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 forges 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, Powell Library, Haines Hall, and Kinsey Hall (now named Humanities 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 becom-
ing the first university to win 100 NCAA team championships.

Today, UCLA is home to over 45,400 students and 4,300 faculty members. With 213 campus buildings, classes are held in more than 70 facilities. As UCLA approaches its 100th anniversary, it remains firmly rooted in Westwood but its reach is beyond borders, with programs and collaborations that span the country, the globe, and even outer space.

**UNIVERSITY OF CALIFORNIA SYSTEM**

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

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

The UC campuses have a combined enrollment exceeding 273,000 students, over 77 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 32 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.

**LIFE ON CAMPUS**

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

**Unique Setting**

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

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

**Large Campus with a Comfortable Feel**

The general campus population, some 41,490 students, is enriched by an additional 3,938 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 2016-17 had under 200 students, and UCLA is striving to further reduce class size. Large lecture classes
opportunities. Instruction takes place in many unique freshman clusters, internships, and education abroad supplemented by seminars, honors programs, specialized discussion, laboratory, research, and creative courses are depth of over 200 disciplines and areas of study. Lecture, extraordinary richness and diversity of teaching programs.

One of the highest UCLA priorities is to advance the distinctly 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, 79 percent graduate within four years, and 91 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.

Dynamic Student Body
Students at UCLA pride themselves on academic excellence. The fall quarter 2017 entering freshman class had an average high school GPA of 4.36, with an average SAT Reasoning Test composite score of 1,321 out of a possible 1,600.

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

Although most students are from California, they come from all 50 states and 120 foreign countries to study at UCLA. Ethnic minorities comprise 73.3 percent of the undergraduates and 66.4 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.

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 20 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.
Summer Sessions

Throughout the summer, UCLA offers three ways to earn UCLA credit—academic courses, summer institutes, and travel study. More than 1,000 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 in an intensive format, specifically for advanced high school students, affording them an opportunity to experience the academic rigor of UCLA. Summer Travel Study offers the option to study various subjects as part of an exciting and challenging travel experience. Many students take advantage of summer sessions to put themselves closer to graduation, explore possibilities, and broaden perspectives.

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. Check with a College or school counselor about applying these courses toward degree requirements and about any limitations the College or school may impose on coursework completed in summer sessions. UCLA financial aid is available to qualified UCLA students.

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

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

UCLA Extension

With over 90,000 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 5,300 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 offer educational opportunities in virtually every region of the world, and foster innovative research. The institute offers six undergraduate majors including global studies, international and area studies, and international development studies, as well as ten undergraduate minors and three graduate programs. These academic programs annually enroll nearly 1,000 students and graduate 400 to 450. Together with its centers, the institute serves the entire campus through a wide range of academic events, scholarships, and grants. 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 East Asia, Latin America, and Southeast Asia as National Resource Centers. The institute’s National Heritage Language Research Center is the nation’s first specialized center for heritage language teaching. The institute also houses topical centers, including the Burkle Center for International Relations and the Center for the Study of International Migration. Other institute units include the Fulbright Enrichment Program; and the Inter-
national Visitors Bureau, which hosts almost 700 international educational and professional visitors each year. The International Institute and its centers serve as a gateway to the world for UCLA and the global city of Los Angeles, hosting a robust schedule of free public events, research conferences, cultural programs, and K-12 outreach. The Vice Provost for International Studies and Global Engagement is responsible for the institute. In addition, the vice provost advocates for international education and study abroad; promotes UCLA global presence and international partnerships; and manages formal university research, teaching, and student exchange agreements with more than 50 countries.

RESEARCH PROGRAMS

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

Organized Research Units

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

American Indian Studies Center

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

Asian American Studies Center

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

Brain Research Institute

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

Center for European and Russian Studies

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

Center for Medieval and Renaissance Studies

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

Center for Seventeenth- and Eighteenth-Century Studies

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

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

Center for the Study of Women

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

Chicano Studies Research Center

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

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

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

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

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

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

Specialized Research Centers, Laboratories, and Institutes

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

Social Sciences

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

Health Sciences

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

Engineering and Physical Sciences

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

ART 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.

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.

UCLA 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 UCLA Meteorite Gallery located in 3697 Geology. The collection and gallery are a major resource for cosmochemical research and the teaching of planetary science.

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, and 700 subscription databases.

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

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

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

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

Arts Library

Housed in 1400 Public Affairs Building, the Arts Library has more than 300,000 books on architecture, architectural history, art, art history, design, fashion and costume, film, television, photography as fine art, studio art, theater, urban design, and allied disciplines. It also contains the Elmer Belt Library of Vinciana, a special collection of rare books and incunabula about Leonardo da Vinci and related materials in Renaissance studies. Performing Arts Special Collections, housed in the Young Research Library, contain noncirculating materials including the Artists’ File; archival records of major Southern California motion picture studios and television production compa-
nies; 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 and contains over 600,000 print volumes and over 30,000 electronic titles.

Louise M. Darling Biomedical Library

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

Music Library

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

Powell Library

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

Richard C. Rudolph East Asian Library

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

Science and Engineering Library

The Science and Engineering Library (SEL) collections on engineering, mathematics, and the physical sciences are housed in two separate locations. SEL/Boelter in Boelter Hall houses materials on aeronautics, astronomy,
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.

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.

UCLA Film and Television Archive

The UCLA 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 both 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.
Other Collections

The Ethnomusicology Archive houses over 100,000 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 best in 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.

Bruin OnLine

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.

Computer Laboratories

Student computer laboratories are supported through the Campus Library Instructional Computing Commons (CLICCC), a collaborative effort of the Center for Digital Humanities, Social Sciences Computing, Office of Instructional Development, 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 ebook formats, obtaining 5,000 copyright authorizations each year. The office is located in the Textbooks department on the A level of Ackerman Union.

Course Websites

The Instructional Enhancement Initiative (IEI) assures that all UCLA undergraduate nontutorial courses offer an individual course website for faculty members, teaching assistants, and enrolled students. The sites facilitate the distribution of supplementary course materials, lecture notes, homework assignments, research links, and electronic communication, including virtual office hours and class bulletin boards for interactive question-and-answer sessions. Instructors decide which of these online capabilities are best suited to their course websites. Many course websites are available through the Common Collaboration and Learning Environment (CCLE).

Disabilities and Computing Program

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

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 calcu-
late 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., including holidays. MyUCLA Features contains a full list of features.

Health and Safety Services

Arthur Ashe Student Health and Wellness Center

The 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.
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.

**UCLA EMERGENCY NUMBERS**

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone Number</th>
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<tbody>
<tr>
<td>Police, Fire, or Medical Emergency</td>
<td>911</td>
</tr>
<tr>
<td>UCLA Medical Center Emergency Room (24 hours)</td>
<td>310-825-2111</td>
</tr>
<tr>
<td>UCLA Counseling and Psychological Services (24 hours)</td>
<td>310-825-0768</td>
</tr>
<tr>
<td>UCLA Police (24 hours)</td>
<td>310-825-1491</td>
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</table>

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 participate in and benefit from multiple programs. For example, its programs tutor youths and adults, address health needs of ethnic communities, combat poverty and homelessness, and better the environment.

Student government also supports approximately 20 student advocacy groups on campus from the African Student Union to the Vietnamese Student Union.

**Campus Events**

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

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

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

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

**Publications, Web, and Broadcast Media**

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

**Daily Bruin**

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

**Newsmagazines**

Seven print newsmagazines reflecting the diversity of the campus community are published each term. Al-Talib,
About UCLA

Fem, Ha’Am, La Gente, Nommo, OutWrite, and Pacific Ties deal respectively with issues relevant to the Muslim; feminist; Jewish; Chicano, Latino, and Native American; African American; lesbian, gay, bisexual, transgender, and queer; and Asian communities. Each includes news and features on political and cultural affairs both on and off campus. Prospective staffers are welcome.

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

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

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

UCLA Restaurants
ASUCLA operates more than a dozen restaurants and six 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
In terms of sales, the UCLA Store is the biggest college store in the nation. There are five locations on campus. Author signings, sales, and other special events are announced in the Daily Bruin or on the UCLA Store site.

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

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

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

Students preparing to graduate can use the Campus Photo Studio for their senior yearbook portraits. Graduation Etc. sells and rents caps, gowns, and hoods for degree ceremonies; and offers announcements, diploma mounting, and other graduation-related products and services. Bruin Custom Print offers copying; binding; and banner, poster, and t-shirt printing. The shop streamlines the process involved in printing custom specialty products that need UCLA licensing and trademark clearance.

Student Life Services
From housing to transportation, basic student needs are facilitated by services designed to enhance all aspects of student living.
Banking
Automated teller machines representing several major banks are located in Ackerman Union, and near restaurants and shops around campus.

The University Credit Union has an office in West Los Angeles and a branch office in Ackerman Union.

BruinCard
The UCLA BruinCard is a mandatory campuswide identification card that can electronically confirm student status and eligibility for services. Supportive photo identification—such as a driver's license or state ID, passport, or military ID—is required when the card is issued.

The primary BruinCard benefit is convenience. It is a versatile card that serves the following functions: confirmation of student status; ID card for faculty, staff, and students; residence hall access and meal card; laundry, library, and recreation card; debit card (if activated) for purchases at campus stores and restaurants on and off campus; and discounted access to Santa Monica and Culver City bus lines.

Students with an outstanding financial, academic, or administrative hold may not receive BruinCard services until the hold is released by the initiating office. Information on outstanding holds and initiating offices is available on MyUCLA.

The BruinCard center is located in 123 Kerckhoff Hall. See BruinCard to check account balance, make deposits, view recent transactions, and report lost or stolen cards.

Bruin Resource Center
The Bruin Resource Center (BRC) in the Student Activities Center can help students navigate the campus and its many services by directing them to the correct office or personnel to meet their specific needs.

The center offers services to all UCLA students, including specialized services for transfer and re-entry students, students who are transitioning out of foster care, student parents, and veterans. Additional offerings include workshops and academic courses to help students develop practical skills and knowledge to succeed at UCLA.

The BRC also houses the Veterans Resource Office, which offers services specifically designed to assist students who are U.S. armed forces veterans or current military members.

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

Career Planning and Exploration
Career counselors provide assistance in selecting a major, setting realistic career goals, investigating career options, evaluating graduate and professional school programs, and developing skills to conduct a successful job search. Information on local, national, and international internship opportunities can assist students in exploring different career possibilities, making important professional contacts, and obtaining valuable on-the-job experience. The Career Center also offers workshops on a variety of career-related topics; many are repeated several times each term.

Employment Assistance
Students who need extra money to finance their college degree can find a large number of part-time, temporary, and seasonal employment leads advertised through the Career Center 24-hourBruinView® online listings. Students and recent graduates looking for full-time, entry-level career positions may access hundreds of current professional, managerial, and technical openings in numerous career fields. Seniors and graduate students may participate in campus interviews for positions in corporations, government, not-for-profit organizations, elementary and secondary schools, community colleges, and four-year academic institutions. Annual career fairs and special events offer additional opportunities to meet potential 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, note-takers, 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 earlier in this chapter.

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**

Bruin Commuter Services (BCS), 100 Strathmore Building, offers transportation and commuting information so students can get to and from campus without driving a car. BCS can also help students use the extensive Los Angeles-area public transit network.

Many students form or join existing UCLA carpools or vanpools. Students can use Zimride to find one-time rides or create a carpool. Nearly 150 vanpools commute to UCLA from 80 Southern California communities, with full- and part-time riding opportunities. The Bruin Commuter Club (BCC) offers special benefits and incentives to eligible UCLA students who ride public transit, a UCLA vanpool, or 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
All commuter students qualify for parking but permits are not guaranteed. Students must be registered for the current term to apply for parking. Parking offers are prioritized according to class level, commuter or campus resident status, 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 who are not offered parking in one term must reapply for parking in the next term.

Students living within ZIP code 90024 must pay the residence hall parking rate. Students living on campus (excluding Regents’ Scholars) must have paid employment, paid internship, or an academic apprenticeship to qualify for parking.

Students with permanent disabilities who have disabled person placards or DMV-issued disabled person license plates, and students with short-term disabilities, may apply to the Center for Accessible Education (CAE) for parking assignments.

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.

The Community Housing Office (CHO) publishes information and listings for non-UCLA-owned apartments, cooperatives, private apartments, roommates, rooms in private homes, and short-term housing. Rental listings are updated daily. CHO also has bus schedules, area maps,
and neighborhood profiles. A current BruinCard or letter of acceptance is required for service.

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 23 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 at UCLA

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

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

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

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

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

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 first in the U.S. with 116. In 2016-17, UCLA men’s and women’s athletic programs placed 11th in the Directors Cup national all-around excellence survey; men placed in the top 10 three times and women four times over the last seven years in the Capital One Cup. In the 23-year history of the USA Today survey, the men’s program placed first 11 times; the women’s program placed first five times in the final nine years. UCLA was the first university in the country to win five NCAA men’s and women’s championships in a single year (1981-82). UCLA competes as the Bruins, in colors of blue and gold.

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

Athletic Facilities

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

Intercollegiate Sports

UCLA Athletics is a member of the Pac-12 Conference. Men’s teams have won an overall total of 75 NCAA titles—second highest in the nation—including 19 in volleyball, 16 in tennis, 11 in basketball, 11 in water polo, eight in track and field, four in soccer, two each in golf and gymnastics, and one each in baseball and swimming. Students can participate on the varsity level in baseball, basketball, cross country, football, golf, soccer, tennis, track and field, volleyball, and water polo.

Women’s teams have won an overall total of 41 NCAA titles—second highest in the nation—including 11 in softball, seven in water polo, seven in gymnastics, five in track and field, four in volleyball, three in golf, two in tennis, and one each in beach volleyball and soccer. Students can participate on the varsity level in baseball, beach volleyball, cross country, golf, gymnastics, rowing, soccer, softball, swimming and diving, tennis, track and field, volleyball, and water polo.
UCLA 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, climbing, cycling, dragon boat, equestrian, fencing, figure skating, golf, gymnastics, judo, kendo, powerlifting, quidditch, running, sailing, ski and snowboard, squash, surf, 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 a women’s team in 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 gymasia; basketball, volleyball, and badminton courts; handball/racquetball/squash courts; a weight training facility, rock climbing wall, exercise/dance and martial arts studios; and a games lounge. Sunset Canyon Recreation Center offers activities in an outdoor park setting that features a 50-meter swimming pool, 25-yard family pool, picnic/barbecue areas, play fields, outdoor amphitheater, six lighted tennis courts, sand volleyball court, two multipurpose sports courts, and various meeting rooms and lounges, as well as a challenge course. The UCLA Marina Aquatic Center offers sailing, windsurfing, kayaking, rowing, surfing, and other activities. Students also have the use of Pauley Pavilion, Drake Stadium, Sunset Canyon Recreation Center, Los Angeles Tennis Center, intramural fields, Student Activities Center, and Kaufman Hall for recreational sports and activities.

UCLA ALUMNI ASSOCIATION

Through 84 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, career events, and the scholarship program.

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

Undergraduate students at UCLA can earn Bachelor of Arts and Bachelor of Science degrees in 134 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.

UNDERGRADUATE ADMISSION

Undergraduate Admission
1147 Murphy Hall
310-825-3101

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

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

Applying for Admission

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

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

When to Apply

All majors and programs in the College of Letters and Science; Henry Samueli School of Engineering and Applied Science; Herb Alpert School of Music; School of the Arts and Architecture; School of Nursing; and School of Theater, Film, and Television are open for fall quarter. The application filing period is November 1 through 30 of the prior year. See applying for UCLA admission for up-to-date information on application procedures.
Notification of Admission
The UC Application Center sends e-mail notices to acknowledge receipt of applications. Subsequently, UCLA Undergraduate Admission notifies students of the admission decision. Fall-quarter freshman applicants are notified beginning in late March; transfer applicants are notified in late April.

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

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

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

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

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

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

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

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

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

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

E. Language Other than English. Two years of the same language—or coursework equivalent to the second level of high school instruction—including emphasis on speaking and understanding, development of awareness and understanding of the cultural context around the target language, practice with reading and composition, and instruction on grammar and vocabulary. Language courses taken in seventh and/or either grade may be used to meet part or all of this requirement. American Sign Language and classical languages such as Greek and Latin are acceptable

F. Visual and Performing Arts. One year-long visual and performing arts course selected from dance, drama/theater, music, or visual art

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

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

Subject Requirement Summary

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<td>A. History/Social Science</td>
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<td>B. English</td>
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<td>C. Mathematics</td>
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<td>D. Laboratory Science</td>
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<td>E. Language Other than English</td>
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<td>F. Visual and Performing Arts</td>
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<tr>
<td>G. College Preparatory Electives</td>
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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 × 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 Registrar’s course fees.

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. UCHIPS components are medical, vision, dental, and behavioral health services.

The UCHIPS fee is billed each term along with other UCLA fees. UCHIPS 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 UCHIPS, and where all nonemergency medical care is initiated.

If students withdraw during a school term, they may continue to use the Ashe Center on a fee-for-service basis for the remainder of the term, effective from the date of the withdrawal.
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 page.

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

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; Ackerman Student Union; Wooden Center; student programs, activities, and resources complex (SPARC); or Undergraduate Students Association fees.

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

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

Fees Notice
All fees are subject to change without notice by the Regents. Current academic year fees and updated information is available on the Registrar’s fees 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 precollege 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
- Engineering
  Academic and Student Affairs, 6426 Boelter Hall
- Letters and Science
  College Academic Counseling, A316 Murphy Hall
- Music
  Student Services and Enrollment Management, 1642 Schoenberg Music Building
- Public Affairs
  Undergraduate Programs, 3250 Public Affairs Building
- Theater, Film, and Television
  Student Services, 103 East Melnitz Building

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

- Honors students
  Honors Programs, A311 Murphy Hall
FINANCIAL SUPPORT

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

The 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, with complete details on all aid, is available at Financial Aid publications.

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 (under the Finances and Jobs tab).

To qualify for aid, students must also comply with minimum progress standards, which set unit and grade-point average requirements as defined in Appendixes under 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 FAFSA is used to apply for all federally funded programs, funds administered by UCLA, and Cal Grants 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. Be sure to indicate that the data is to be sent to UCLA by using the UCLA Title IV code 001315.

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 and state and UCLA grant aid if they complete a California Dream Act Application online. The priority filing deadline for state and UCLA aid consideration is March 2.

Prospective Student Scholarships

In addition to using the FAFSA 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.

Continuing Student Scholarships

Scholarship applications for continuing students can be submitted on MyUCLA (under the Finances and Jobs tab). Students should begin their search early and continue it throughout the year, as scholarships across campus have differing deadlines. The Scholarship Resource Center can also help with a thorough search for UCLA and outside scholarships.

Types of Financial Aid

The four basic types of aid are scholarships, grants, loans, and work-study employment. Financial Aid and Scholarships 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 Financial Aid and Scholarships 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.

Financial need is required for UCLA and named (endowed) scholarships other than those listed below. Awards range from $100 to $3,000 and are not automatically renewable. Entering students apply for scholarships on the UC Application for Admission and Scholarships. If admitted to UCLA, new students also have the opportunity to add additional information to their scholarship profile, so they can be considered for other scholarships that open throughout the academic year. Continuing students should begin their search early and continue it throughout the year, as scholarships across campus have differing deadlines.
In addition to applying for UCLA scholarships, students are encouraged to apply for outside scholarship funding through search engines such as FastWeb, GoCollege, and others.

**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.

**UCLA 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 guardian 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](https://www.rotc.mil/AF), [Army](https://www.armyrotc.edu/), and [Navy/Marine Corps](https://nmc.marinecorpstv.com/). 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 based on need and do not have to be repaid. When awarding policies and funds permit, the financial aid package includes a grant.

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 2018-19 range from $606 to $5,920 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. They are 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 on-time applicants. 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.

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 and California Dream Act applicants are considered.

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

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

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

William D. Ford Federal Direct Loan Program

Direct Loans
Direct loans are low-interest subsidized and unsubsidized loans financed by the U.S. Department of Education.

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

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

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

**Private Loans**

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

**Short-Term Loans**

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

**Work-Study Program**

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

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

**MAJORS AND DEGREES**

Students may choose from 134 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:

- Scoring 3, 4, or 5 on one of the College Board Advanced Placement Examinations in English
- Scoring 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
- Scoring 680 or better on the SAT Evidenced-Based Reading and Writing
- Scoring 680 or better on the SAT Reasoning Test, Writing (last administered in January 2016)
- Scoring 30 or better on the ACT English Language Arts test
- Scoring 30 or better on the ACT Combined English/Writing test (last administered in June 2015)
- Presenting transfer credit for an acceptable college-level course in English composition (passed with a grade of C or better) at another institution
- Passing 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 less must repeat the course during their next term in residence. Satisfaction of the Entry-Level Writing requirement is a requisite to English Composition 3 and all subsequent English courses.

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 educa-
tion 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. Arts, humanities, 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. Arts, humanities, 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 in the second-floor Career Laboratory and online. Options for current students and graduates include teaching or volun-
teering abroad, research or fieldwork, and internships in almost every occupation or industry. The Hire UCLA Ambassadors Team advises students on search techniques to identify relevant employers and programs. All career counselors and peer advisers 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 12 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; meets the capstone requirement for the Public Affairs minor; 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 ABC News, the Brookings Institution, CNN, the Department of Justice, the Kennedy Center, Studio Theatre, the Center for Strategic and International Studies, 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, partici-
pants 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 is designed for students who wish to become middle school and high school science teachers and is also attractive to students who plan to teach as graduate students in their disciplines. The minor supplies the broad general science background included in California state subject matter credential examinations, selected coursework required for entry into a variety of postbaccalaureate credential programs, and field experiences in the development, management, and teaching of science laboratory instruction in grades 7 through 12, including Advanced Placement Tests. 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. 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 (CUTF) offers outstanding graduate students the opportunity to develop and teach lower division seminars in their area of expertise. These unique courses cover all areas, from the humanities to the life, physical, and social sciences. Undergraduate students take courses that are at the cutting edge of a discipline and benefit from a small-seminar environment. GE and honors credit is granted for most seminars, which are offered in winter and spring quarters only. Enrollment is limited. For more information, contact the Office of Instructional Development by e-mail.

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.

Fiat Lux Freshman Seminar Program
Fiat Lux seminars offer students an opportunity to share ideas in class—an important academic skill that can be acquired only through practice. These 1-unit, Passed/Not Passed seminars, taught by distinguished faculty members from across campus, introduce undergraduate students to topics of intellectual importance and encourage them to participate in critical discussions with faculty and a small group of peers. The program takes its name from the motto of the University of California: Fiat Lux—Let There be Light! For details about seminar offerings each term, see the Schedule of Classes.

Undergraduate Student Initiated Education
The Undergraduate Student Initiated Education (USIE) program offers a select group of juniors and seniors the opportunity to develop and facilitate, under faculty supervision, a 1-unit, Passed/Not Passed, lower-division seminar for their peers. Students apply and are selected during the spring quarter. During the following fall and winter quarters, selected students work with their faculty mentors and enroll in a pedagogy course to prepare the seminar, which is offered in the ensuing spring quarter. Undergraduates may enroll in a USIE seminar twice during their career.

ADVISING AND ACADEMIC ASSISTANCE

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 information about degree requirements, and assist with academic problems.

Students in the College are served by one of four counseling units: Academic Advancement Program, College Academic Counseling, Honors Programs, and Student Athletics. Undergraduates in the five professional schools are served by their respective student services offices. See Registrar's academic counseling 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.

Mentoring and Research Programs

AAP programs also help students attain their academic and professional goals beyond the bachelor's degree.

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 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, service learning courses, and research.

Graduate Mentoring and Research Program (GMRP)

The program offers AAP students one-on-one mentoring by current graduate students in preparation for graduate studies and professional school admission. It also offers workshops on graduate school topics.

High Achievement in Math and Science (HIGH AIMS) Program

The two-year program supports AAP students seeking further learning in health science professions. It offers career and academic guidance, and includes community service, workshops, and information sessions.

McNair Research Scholars Program

The two-year program prepares 28 AAP students for PhD programs in humanities and social sciences. Students conduct an independent research project and participate in a research-intensive summer program.

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.

**Peer Learning**
AAP peer learning facilitators are upper-division AAP students who serve as academic role models and tutors. Small-group workshops help build scholarship skills and foster discussion that allows students to listen to, and articulate, new and different perspectives.

**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.

**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 fill graduation requirements, and get support in small groups or individual sessions from teaching assistants and peer learning facilitators.

**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, 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 Registrar’s honors 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 calendar).

**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 need to earn 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 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 provide extraordinary opportunities for graduate endeavor.

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

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

**SHARED GOVERNANCE**

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

**Graduate Council**

The Graduate Council is a standing committee of the UCLA Academic Senate. The council is responsible for the establishment of UCLA policy and standards for master, doctorate, and graduate professional degree programs (other than those in law, medicine, and dentistry) and 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 post-baccalaureate 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 site. 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 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**
  - Genetics and Genomics
- **Molecular Biology**
  - Biochemistry, Biophysics, and Structural Biology
  - Cell and Developmental Biology
  - Gene Regulation
  - Immunity, Microbes, and Molecular Pathogenesis
- **Molecular, Cellular, and Integrative Physiology**
- **Molecular and Medical Pharmacology**
  - Molecular Pharmacology: Diagnostics, Therapeutics, and the Biology of Disease
- **Neuroscience**
- **Physics and Biology in Medicine**

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

**International Applicants**

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

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

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

Proficiency in English
Most international applicants to UCLA graduate school are required to submit scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) examination. International students who hold a bachelor’s or higher degree from a university located in the U.S. or in another country (e.g., Australia, Barbados, Canada, Ireland, Jamaica, New Zealand, United Kingdom) in which English is both the primary spoken language of daily life and the medium of instruction, or who have completed at least two years of full-time study at such an institution, are exempt from this requirement.

Applicants who are required to submit TOEFL or IELTS scores (i.e., do not belong to the exempted categories listed) may also be required to take the UCLA English as a Second Language Placement Examination (ESLPE) to determine potential coursework in academic writing. Incoming students who score at least 100 on the TOEFL iBT (Internet-based test) or at least 7.5 overall band score on the IELTS examination are exempt from the ESLPE requirement.

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
Nonnative 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 Office of Instructional Development (OID). Those who hold a bachelor’s or higher degree from a U.S. institution are exempt. Students who do not plan to work as teaching assistants do not need to take the TOP.

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 OID TOP 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 especially 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 session classes to their subsequent graduate program should consult in advance with their departmental adviser. This is also true if they have been readmitted to graduate standing and wish to resume graduate study in summer ses-
sions. 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 University 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 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 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. UCHSIP components are medical, vision, dental, and behavioral health services.

The UCHSIP fee is billed each term along with other UCLA fees. UCHSIP 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 UCHSIP, and where all nonemergency medical care is initiated.

If students withdraw during a school term, they may continue to use the Ashe Center on a fee-for-service basis for the remainder of the term, effective from the date of the withdrawal.

Waiving UCHSIP

Students may waive UCHSIP 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 UCHSIP for a stu-
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 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 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 period 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 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 medical school, dental school, and nursing school websites 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 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 quarter 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 Application for Graduate Admission. Continuing graduate students...
completed 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 endowed or trust 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 individuals.

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 the University 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. 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 for at least 4 units of credit. 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. If their program has a language requirement, students should fulfill it either before they begin graduate study or as soon as possible thereafter. All foreign language requirements must be satisfied before advancement to candidacy.

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. Students are urged to complete language requirements 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).

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 Registrar’s term calendar. For fees, see fee tables.

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

Graduate Student

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

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

Repetition of Courses

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

- 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.

- 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.
- 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.
- 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.
- Certain programs may place additional restrictions on the repetition of courses required for those programs.
- 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 a 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 registered in a course.

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>
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<tr>
<td>B−</td>
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</tr>
<tr>
<td>C+</td>
<td>2.3</td>
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</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 four-unit courses and receives grades of A−, B−, and C+, then the GPA of 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>
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<tr>
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<td>4</td>
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</tr>
<tr>
<td>B−</td>
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</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 page for policy details and specific refund dates.

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

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

**Undergraduate One-Term Absence**

Undergraduate students who complete a term (fall, winter, or spring quarter) and do not register the following term may return to UCLA the subsequent term as a continuing student, and be eligible to register and enroll in advance. Students on a one-term absence who plan to attend another institution—including UCLA Extension—should discuss plans with their College or school counselor before enrolling elsewhere. On returning to UCLA, students must have an official transcript sent from the institution directly to UCLA Undergraduate Admission to have coursework evaluated.

**Planned Academic Leave (PAL) for International Travel**

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

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

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

**Undergraduate Readmission**

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

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

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

**Readmission Deadlines**

- Fall Quarter: August 15
- Winter Quarter: November 25
- Spring Quarter: February 25

**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.

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.

The Leave of Absence Request is available online. See the Registrar’s term calendar for the filing deadline.

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

**In Absentia Registration**

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

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

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

TRANSCRIPTS AND RECORDS

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

Transcripts

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

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

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

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

Academic Transcript

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

Grades for completed terms are processed immediately following the conclusion of final examinations. Complete academic transcripts are available approximately two weeks after the last day of the term. For graduating students, academic transcripts with the graduation date included are available approximately six weeks after the term-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 transcripts, for both registered and former students, is three working days.

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

Verification Transcript

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

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

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

Third-Party Verifications

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

Ordering Transcripts

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

Requests are not processed if students have outstanding financial, academic, or administrative obligations (holds) to UCLA. Transcripts of work completed elsewhere must be requested directly from the campus or institution concerned.

More information on ordering transcripts is available on the Registrar’s student records 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 University 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 college 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 beyond 105 quarter units, but students may still receive subject credit for this coursework to satisfy lower-division requirements. Units earned through Advanced Placement (AP), International Baccalaureate (IB), and/or A-Level examinations are not included in the limitation. Units earned at any UC campus (through extension, summer, cross-campus, UCEAP, Intercampus Visitor Program, and regular academic year enrollment) are not included in the limitation. To convert semester units into quarter units, multiply the semester units by 1.5; for example, 12 semester units x 1.5 = 18 quarter units. To convert quarter units into semester units, multiply the quarter units by .666; for example, 12 quarter units x .666 = 7.99 or 8 semester units.

Summer Session Courses
Summer session grades at any UC campus are computed in the UCLA grade-point average.

UCLA Extension
Students who wish to receive degree credit for work taken through UCLA Extension should take courses that correspond in number to the undergraduate courses offered in regular session. The designation XL or XLC before the number of the Extension course signifies that the course is equivalent to the regular-session course bearing the same number. Grades earned by undergraduate students in the College of Letters and Science, the School of the Arts and Architecture, and the 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 department 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 check from the Office of Academic and Student Affairs, 6426 Boelter Hall. All students are encouraged to meet regularly with an academic counselor. Students should obtain an official degree check at least one term prior to their graduation term, and can make an appointment to see their 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.

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 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 Humanities; 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 declara-
tion 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
- **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. For graduation ceremony procedures, contact the College or school.

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. Refer to 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. Call 310-825-8883 for recorded diploma availability information.

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 28,600 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 multi-racial, 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 Civic Engagement.

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.

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.

Honors Programs

Honors Programs offers academic programs and services designed to promote an outstanding honors education, including College Honors, Honors Collegium, Departmental Scholar Program, Individual Majors Program, Honors Scholarships, Honors Research Stipends, and specialized counseling and support services for College honors students.

New Student and Transition Programs

New Student Orientation is the first introduction to UCLA for new students. During the three-day first-year student sessions; and the one- and two-day transfer student sessions, a unique set of comprehensive and engaging programs is offered to make student transitions to UCLA great ones.

Office of Instructional Development

The Office of Instructional Development (OID) supports undergraduate education by enhancing teaching and learning opportunities. Through grants, programs, and services, OID promotes the effective use of current and emerging instructional methodologies and technologies.
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 134 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 79 undergraduate minors.

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

Undergraduate Degree Requirements
Degree programs in the College offer students a variety of intellectual challenges by combining a wide distribution of courses and the opportunity to specialize in one particular field. To this end, students are required to select lower-division courses that furnish general foundations of human knowledge. In upper-division courses, they concentrate on one major field of interest.

As described below, College students must satisfy UC requirements, College requirements, and department requirements for the Bachelor of Arts or Bachelor of Science degree.

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.

New 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 grade or better (C– grades are 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 grade or better (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by (1) scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; (2) 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; (3) completing a course equivalent to English Composition 3 with a C grade or better (a C– or Passed grade is not acceptable) taken at another institution; or (4) 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, IB, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C grade or better (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 Registrar’s Writing II requirement for details. The course must be completed with a C grade or better (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 foreign language requirement as long as they meet the appropriate 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.

**Quantitative Reasoning Requirement**

The quantitative reasoning requirement may 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 ACT mathematics exam score of 26 or better. Approved UCLA courses and examinations, and qualifying scores, are determined by the College Faculty Executive Committee.

**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 better or Passed 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 Registrar’s foreign language requirement.

**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 grade or better (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.

### GENERAL EDUCATION REQUIREMENTS

<table>
<thead>
<tr>
<th>Foundations of the Arts and Humanities</th>
<th>1 course</th>
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</thead>
<tbody>
<tr>
<td>Literary and Cultural Analysis</td>
<td></td>
</tr>
<tr>
<td>Philosophical and Linguistic Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis</td>
<td></td>
</tr>
<tr>
<td>Practice</td>
<td>1 course</td>
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<tr>
<td>Total</td>
<td>15 units minimum</td>
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</tbody>
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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></td>
</tr>
<tr>
<td>Social Analysis</td>
<td></td>
</tr>
<tr>
<td>Third course from either subgroup</td>
<td>1 course</td>
</tr>
<tr>
<td>Total</td>
<td>15 units minimum</td>
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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></td>
</tr>
<tr>
<td>Physical Sciences</td>
<td></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 2018 through spring quarter 2019, the requirement is reduced to three courses, one from each subgroup and a third course from either subgroup, of which one course must be 5 units and carry either laboratory/demonstration or Writing II credit. Other courses in the subgroups may be 4 units.</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18 units minimum (12 min. fall 2018–spring 2019)</td>
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</table>

| Total GE                         | 10 courses/48 units minimum |
|                                  | (9 courses/42 units minimum F18-S19) |

### 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 2018 through spring quarter 2019, the requirement is reduced to three courses, one from each subgroup and a third course from either subgroup, of which one course must be 5 units and carry either laboratory/demonstration or Writing II credit. 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.

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 better or Passed grade in each. Students who fail to complete the remaining IGETC coursework or who are otherwise not eligible for IGETC or partial IGETC must complete the College GE requirements. Consult with a college adviser regarding GE requirements prior to enrolling in any courses.

Department Requirements
College of Letters and Science departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Departments also set requirements for minors and specializations.

Preparation for the Major
Admission to a major may require completion of a set of courses known as preparation for the major. Some majors admit applicants to premajor status until requisite courses are satisfactorily completed. Students in life sciences majors must complete a set of preparatory courses known as the Life Sciences core curriculum. Each department sets its own preparation for the major and eligibility requirements; see the Curricula and Courses chapter.

The Major
A major in the College consists of a group of coordinated upper-division courses and is designated as departmental, interdepartmental, or individual. Each course applied toward the major and preparation for the major must be taken for a letter grade unless otherwise stipulated by the department. Students who have been away from UCLA for several terms should consult with their major department or curriculum adviser concerning the requirements under which they are to graduate.

Each department sets its own major requirements; see the Curricula and Courses chapter.

Departmental Majors. A departmental major consists of a minimum of 36 upper-division units and a maximum of 60 upper-division units. The majors are established and supervised by campus departments.

Interdepartmental Majors. An interdepartmental major consists of a minimum of 48 upper-division units and a maximum of 75 upper-division units, of which no more than 32 units may be coursework in one department. The programs are administered by interdepartmental committees made up of faculty whose membership is determined by research interest, not by departmental affiliation. By cutting across the usual lines of departmental division, a field is studied from the perspectives of different disciplines, and a greater degree of program flexibility is achieved.

Individual Capstone Majors. If students have some unusual but definite academic interest for which no suitable major is offered at UCLA, and have completed at least three terms of work (45 units minimum) at UCLA with a grade-point average of 3.4 or better, they may petition for an individual capstone major. The consent of College Honors Programs and the assistance of a faculty adviser are required. Individual majors must be approved by the vice provost for undergraduate education.

The individual major must consist of at least 48 and no more than 60 upper-division units, a majority of which must be in departments offering a major in the College. A capstone senior thesis of at least 8 but no more than 12
units is required. For details about individual majors, contact Honors Programs, A311 Murphy Hall.

**Double Majors.** Students in good academic standing and on track to graduate on time may be permitted to have a double major, consisting of majors from two departments within the College. Both majors must be completed within the maximum limit of 216 units, and students must obtain the approval of both departments and the College.

With few exceptions, double majors in the same department are unacceptable. No more than 20 upper-division units may be shared by both majors.

**Minors and Specializations**
Students may choose to pursue a minor to complement their major program of study. Minors consist of no fewer than seven courses (28 units) and no more than nine courses (36 units). Some minors also have admission requirements.

The Computing specializations are sequences of supplemental courses that enhance work in a major.

See the list of undergraduate minors and specializations in the Majors and Degrees chapter; descriptions are in the Curricula and Courses chapter.

**Policies and Regulations**
Degree requirements are subject to policies and regulations, including the following:

**Student Responsibility**
Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

**Study List**
The study list is a record of classes that a student is taking during a particular term. The allowable study list load is up to 19 units. After the first term, students may petition to enroll in more than 19 units if they attained at least a 3.0 grade-point average the preceding term in a total program of at least 15 units and have an overall grade-point average of 3.0.

First-term transfer students from any other UC campus may carry excess units on the same basis as students who have completed one or more terms at UCLA; however, they are not encouraged to do so.

**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 interdepartmental degree committee that governs their intended major.

Changing a Major

Students in good academic standing who wish to change their major may petition to do so, provided they can complete the new major within the 216-unit limit and are on track to graduate on time. Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted. Changes are normally not permitted if students are not in good academic standing or have begun their last term.

Students who fail to attain a grade-point average of 2.0 (C) in preparation for the major or major courses may be denied the privilege of entering or continuing in that major. Some departments may have higher grade-point requirements for their preparation and major courses or other restrictions; consult with the appropriate department regarding minimum standards and eligibility requirements.

Re-entering Students and Their Majors

Students returning to UCLA to resume their studies after an absence of several years may find their previous major area of study is no longer available. They must select a current major in which to complete their studies. Consult with an academic adviser for assistance.

Credit Limitations

The following credit limitations apply to all undergraduate students enrolled in the College. In many cases, units are not deducted until the final term before graduation. Students with questions should consult with an academic adviser.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Audit from Undergraduate Admission indicating the transferable units from former institutions. However, the following credit limitations may reduce the total number of transferred units that apply toward the degree in the College. Consult with an adviser in College Academic Counseling about these limitations.

Advanced Placement Examinations. Advanced Placement (AP) Examination credit may not be applied toward a degree unless students had less than 36 units of credit at the time of the examination(s). See the College AP table for UCLA course equivalents and credit allowed for GE requirements.

College Level Examination Program. Credit earned through the College Level Examination Program (CLEP) and through the California State University English Equivalency Examination may not be applied toward the bachelor’s degree.

Community College/Lower Division Transfer Limitation. Effective for students admitted fall 2017 and later, after completing 105 lower-division quarter units toward the degree in all institutions attended, students are allowed no further unit credit for courses completed at a community college or for lower-division courses completed at any institution outside of the University of California.

Credit by Examination. Within the College, eligibility for credit by examination is usually limited to students who have been approved as Departmental Scholars or who are admitted to a departmental honors program or Honors Programs. Students who have completed a minimum of 12 units at UCLA with a minimum 3.5 overall grade-point average may petition for credit by examination. The examination for that course must be taken successfully before students may petition for credit by examination in another course.

Students may receive credit by examination for only one course out of 10 courses completed. Credit by examination may not be used to gain credit for prior knowledge, audited courses, or courses taken elsewhere. Units for a course taken by examination are applied toward the 216-unit maximum allowable units for graduation. Petitions for credit by examination (with fee) are available only through an appointment with a counselor in Honors Programs, A311 Murphy Hall.

Education Abroad Program. Students participating in the Education Abroad Program may receive a maximum of 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 60A through 65, C90A through 90S, 160A through 165, 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 and no NP or I grade; or a 3.66 GPA and at least 56 grade points during the term, with no NP or I grade. Dean’s Honors are automatically recorded on the transcript.

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 (3.910 GPA or better) for summa cum laude, the next five percent (3.837 GPA or better) for magna cum laude, or the next 10 percent (3.729 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 Registrar’s honors, for the most current Latin honors calculations.

Departmental Scholar Program

Departments may nominate exceptionally promising undergraduate students (juniors and seniors) as UCLA Departmental Scholars to pursue bachelor’s and master’s degrees simultaneously. Qualifications include completion of 24 courses (96 quarter units) at UCLA or the equivalent at a similar institution, the requirements in preparation for the major, and eligibility to participate in the College Honors program. Students must also have at least one term of coursework remaining at UCLA. To obtain both the bachelor’s and master’s degrees, students must be provisionally admitted to the Graduate Division, fulfill requirements for each program, and maintain a minimum 3.0 (B) GPA. No course may be used to fulfill requirements for both degrees. Interested students should consult with their department well in advance of application dates for graduate admission. For more information, contact the Honors Programs Office in A311 Murphy Hall.

Graduate Study

The College of Letters and Science offers graduate students a variety of opportunities for academic pursuit, faculty-sponsored research, and fieldwork relative to specific programs and career goals.

With Graduate Division approval and subject to UCLA minimum requirements, each department sets its own standards for admission and other requirements for award of master’s and doctorate degrees. For complete degree requirements, see program requirements for UCLA graduate degrees.

For information on proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study chapter.

DAVID GEFFEN SCHOOL OF MEDICINE

Kelsey C. Martin, Dean

Geffen School of Medicine
17-253 East Center for Health Sciences
310-825-6081
School of Medicine 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.

Biological Chemistry MS, PhD
Biomathematics MS, PhD
Clinical Research 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
Pathology—Cellular and Molecular Pathology MS, 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, 17-253 East Center for Health Sciences, 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**

1009 Moore Hall
310-825-8326
School e-mail

The Graduate School of Education and Information Studies (GSE&IS) at UCLA is dedicated to inquiry, advancement of knowledge, improvement of professional practice, and service to the education and information professions. GSE&IS develops future generations of scholars, teachers, information professionals, and institutional leaders. Its work is guided by the principles of individual responsibility and social justice, an ethic of caring, and commitment to the communities it serves.

Faculty members and students of GSE&IS combine a passion and skill for cutting-edge research with an appreciation for its application in the widely diverse cultures and communities in which it exists. These communities serve as fertile training ground for students in all programs, through internships, research projects, summer placements, and teaching opportunities.

GSE&IS is committed to the highest-quality professional education, and to the application of research and scholarship to the challenges facing a diverse and increasingly urbanized world.

**Departments and Programs**

The school consists of two departments—the Department of Education and the Department of Information Studies. Both have a clear and strong commitment to the pursuit of excellence in their research-oriented and professional degree programs.

Research-oriented master’s and doctoral programs prepare top scholars in their respective fields; while future librarians, archivists, information professionals, teachers, student affairs practitioners, school administrators, and superintendents are prepared in the various professional master’s and doctorate degree programs. The UCLA Lab School (Corinne A. Seeds campus) and the UCLA Community School offer innovative educational programs for preK-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 Graduate Division admission.

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 (CICCCQ) 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, CICCCQ conducts basic, applied, and policy-driven research at the local, state, and national levels. CICCCQ 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 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 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 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.

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**HENRY SAMUELI SCHOOL OF ENGINEERING AND APPLIED SCIENCE**

Jayathi Y. Murthy, Dean

Samueli School of Engineering and Applied Science

6426 Boelter Hall

310-825-2826

Founded in 1945, the UCLA Henry Samueli School of Engineering and Applied Science (HSSEAS) is committed to providing a rigorous hands-on engineering education to undergraduate and graduate students. Recognized internationally as a top program, UCLA Engineering 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 Engineering 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 design, advanced materials and manufacturing, robotics and cyberphysical
systems, computer networking and cybersecurity, artificial intelligence and machine learning, and data management. Partnerships across campus reflect the school’s 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 laboratories, and assignments that develop real-world problem-solving skills. The undergraduate degree curriculum also exposes students to the humanities, social sciences, life sciences, and the arts. It includes a technical breadth requirement, designed to provide students with working knowledge of a technical field outside their major. The school emphasizes that engineers must uphold high ethical standards in creating and managing technology, and is committed to training engineers from diverse backgrounds. Opportunities exist for students to gain exposure to entrepreneurship and commercialization of technologies. Undergraduate students are encouraged to participate in industrial internships and academic research. Students are committed to a high standard of achievement and service to society, consistent with the mission of the school and UCLA.

Departments and Programs

The Henry Samueli School of Engineering and Applied Science has seven departments that offer study in aerospace engineering, bioengineering, chemical engineering, civil engineering, computer engineering, computer science, computer science and engineering, electrical and computer engineering, electrical engineering, manufacturing engineering, materials engineering, and mechanical engineering. Undergraduate programs in aerospace engineering, bioengineering, chemical engineering, civil engineering, computer science and engineering, electrical engineering, materials engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET. The computer science and computer science and engineering programs are accredited by the Computing Accreditation Commission of ABET. The undergraduate program in computer engineering, established in fall 2017, will be submitted to ABET for accreditation during the next ABET visit in 2024.

For specific programs, see department information in the Curricula and Courses chapter; or refer to the school Announcement available from the Office of Academic and Student Affairs, 6426 Boelter Hall.

Degrees

The Henry Samueli School of Engineering and Applied Science offers the following degrees and undergraduate minors:

- Aerospace Engineering BS, MS, PhD
- Bioengineering BS, MS, PhD
- Chemical Engineering BS, MS, PhD
- Civil Engineering BS, MS, PhD
- Computer Engineering BS
- Computer Science BS, MS, PhD
- Computer Science and Engineering BS
- Electrical and Computer Engineering MS, PhD
- Electrical Engineering BS
- Engineering MEng, online MS, Engr
- Engineering—Aerospace online MS
- Engineering—Computer Networking online MS
- Engineering—Electrical online MS
- Engineering—Electronic Materials online MS
- Engineering—Integrated Circuits online MS
- Engineering—Manufacturing and Design online MS
- Engineering—Materials Science online MS
- Engineering—Mechanical online MS
- Engineering—Signal Processing and Communications online MS
- Engineering—Structural Materials online MS
- Engineering and Applied Science Graduate Certificate of Specialization
- Manufacturing Engineering MS
- Materials Engineering BS
- Materials Science and Engineering MS, PhD
- Mechanical Engineering BS, MS, PhD
- Concurrent Degree Program
  - Computer Science MS/Management MBA
- Undergraduate Minors
  - Bioinformatics
  - Environmental Engineering

Undergraduate Admission

Applicants for admission to the school must satisfy the UC admission requirements as outlined in the Undergraduate 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 2017 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. Additional life sciences (4 units), English composition (5 units), and humanities/social sciences courses (total of 16 quarter units minimum) equivalent to school general education (GE) courses.

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. Check with the Office of Academic and Student Affairs, 6426 Boelter Hall.

Undergraduate Degree Requirements
Students must satisfy UC requirements, school requirements, and department requirements for the Bachelor of Science degree.

University Requirements
The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in the Undergraduate Study chapter for details.

School Requirements
There are seven requirements that must be satisfied for award of a degree.

Unit Requirement
The minimum units allowed for students is between 180 and 185, depending on the program. The maximum allowed is 213 units.

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 grade or better in each (a C– is not acceptable).

Writing I. The Writing I requirement must be satisfied by completing English Composition 3, 3D, 3DS, 3E, or 3SL with a C grade or better (a C– or Passed grade is not acceptable) by the end of the second year of enrollment.

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 grade or better (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 grade or better (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 grade or better (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 grade or better (a C– 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 engineering writing or GE requirements.

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.

**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.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>Course Area</th>
<th>Subgroup</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundations of the Arts and Humanities</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Literary and Cultural Analysis</td>
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<tr>
<td></td>
<td>Philosophical and Linguistic Analysis</td>
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<tr>
<td></td>
<td>Visual and Performance Arts Analysis and Practice</td>
<td></td>
<td></td>
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<tr>
<td><strong>Total GE</strong></td>
<td>5 courses</td>
<td></td>
<td>24 units minimum</td>
</tr>
<tr>
<td><strong>Foundations of Society and Culture</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Historical Analysis</td>
<td>1 course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Analysis</td>
<td>1 course</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2 courses</td>
<td></td>
<td>10 units minimum</td>
</tr>
<tr>
<td><strong>Foundations of Scientific Inquiry</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Life Sciences</td>
<td>1 course</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1 course</td>
<td></td>
<td>4 units minimum</td>
</tr>
<tr>
<td><strong>Total GE</strong></td>
<td>5 courses</td>
<td></td>
<td>24 units minimum</td>
</tr>
</tbody>
</table>

Engineering writing requirement courses also approved for GE credit may be applied toward the relevant GE foundational areas.
before enrolling at UCLA. Otherwise, they must fulfill the
Henry Samuei 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-divi-
sion 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 Curricu-
lica and Courses chapter.

The Major

Students must complete their major with a scholarship
grade-point average of at least a 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 Curri-
cula and Courses chapter for details on each major.

Minors and Double Majors

Students in good academic standing may be permitted to
have a minor or double major. The minor or second major
must be outside the school (e.g., Electrical Engineering
major and Economics major). Students are not permitted
to have a double major with two school majors (e.g.,
Chemical Engineering and Civil Engineering). Students
may file an Undergraduate Request to Double Major or
Add Minor form at the Office of Academic and Student
Affairs. The school determines final approval of a minor
or double major request; review is done on a case-by-case
basis, and filing the request does not guarantee approval.
Students interested in a minor or double major should
meet with their counselor in 6426 Boelter Hall.

While minor and double major requests are considered,
specializations are not considered.

Policies and Regulations

Degree requirements are subject to policies and regula-
tions, 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 aca-
demic 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 mini-
mum of 36 units in three consecutive terms in which they
are registered.

Credit Limitations

The following credit limitations apply to all undergradu-
ate students enrolled in the school:

Advanced Placement Examinations. Some portions of
Advanced Placement (AP) Examination credit are evalu-
ated 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 Limita-
tion. 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 com-
pleted at any institution outside of the University of Cali-
ifornia. 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, sum-
mer, 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 bache-
or's degree for college foreign language courses equiva-
 lent to quarter levels one and two if the equivalent of
level two of the same language was completed with satis-
factory 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– grade 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 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 effect when they enter the school. California community college students normally follow the curriculum in effect when they entered the school. UCLA, and school regulations and procedures. It is the 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.

Undergraduate 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 List

Students following the engineering curricula are eligible to be named to the Dean’s Honors List each term. Minimum requirements are a course load of at least 15 units (12 units of letter grade) with a grade-point average equal to or greater than 3.7. Students are not eligible for the Dean’s Honors List if they receive an Incomplete (I) or Not Passed (NP) grade or repeat a course. Only courses applicable to an undergraduate degree are considered toward eligibility for Dean’s Honors.

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 3.885 or better) for summa cum laude, next five percent (GPA of 3.816 or better) for magna cum laude, and the next 10 percent (GPA of 3.698 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 3.885 GPA for summa cum laude, 3.816 for magna cum laude, and 3.698 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; the current minimum grade-point average required for honors at graduation; 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 Samuei School of Engineering and Applied Science 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 24 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 Samuei 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 Samuei 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. 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 (MEngr) 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 school graduate admissions. From there connect to the preferred department or program site and go to the online graduate application.

Graduate Degree Requirements

Graduate degree information is updated annually in program requirements for UCLA graduate degrees.

Master of Science Degrees

No lower-division courses may be applied toward graduate degrees. In addition, the various departments generally do not allow, for graduate degree credit, courses required of their undergraduate students. Consult the departmental graduate affairs office for more information.

Individual departments may impose certain restrictions on the applicability of other undergraduate courses toward graduate degrees. Consult with the graduate adviser on departmental requirements and restrictions.

Major Fields or Subdisciplines

The MS program focuses on one major field. The major fields and subdisciplines offered at the MS level in most cases parallel those listed for the PhD program. There are some differences (for example, manufacturing engineering in the Department of Mechanical and Aerospace Engineering is offered only at the MS level). Contact the specific department regarding possible differences between the MS and PhD fields and subdisciplines. Students are free to propose to the school any other field of study, with the support of their adviser.

Course Requirements

A total of nine courses is required for an MS degree, including a minimum of five graduate courses. (Some fields require more than five; obtain specific information from the department of interest.) A majority of the total formal course requirement and of the graduate course requirement must consist of school courses. In the thesis plan, seven of the nine courses must be formal courses, including at least four from the 200 series. The remaining two courses may be 598 courses involving work on the
thesis. In the comprehensive examination plan, at least five of the nine courses must be in the 200 series; the remaining four courses may be either 200-series graduate or upper-division undergraduate courses. No 500-series courses may be applied toward the comprehensive examination plan requirements.

**Thesis Plan**
The thesis must either describe some original piece of research that students have done, usually but not necessarily under the supervision of the thesis committee; or supply a critical exposition of some topic in their major field of study. Students would normally start to plan the thesis at least one year before award of the MS degree is expected. There is no examination under the thesis plan.

**Comprehensive Examination Plan**
For information on the comprehensive examination plan for each department, see program requirements for UCLA graduate degrees.

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**HERB ALPERT SCHOOL OF MUSIC**

Judith L. Smith, 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, 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 Thelonious Monk 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
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 school undergraduate admission. 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.

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 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 grade or better (a C– or Passed grade is not acceptable).

Writing II. The Writing II requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DS, or 3SL with a C grade or better (a C– or Passed grade is not acceptable).

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
5. Writing I
6. Writing II
7. Quantitative Reasoning
8. Foreign Language
9. Diversity
10. 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.
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 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 Registrar’s foreign language requirement.

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 grade or better (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 on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely.
before enrolling at UCLA. Otherwise, they must fulfill the Herb Alpert School of Music GE requirements.

**Department Requirements**

Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Preparation for the major courses should be completed before beginning upper-division work.

**Preparation for the Major**

A major requires completion of a set of courses known as preparation for the major. Each department sets its own preparation for the major requirements; see the Curricula and Courses chapter.

**The Major**

A major is composed of at least 36 units and no more than 58 units of upper-division courses.

Students must complete their major with a grade-point average of at least a 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 to be reviewed for a minor and/or double major on an individual basis. 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 student 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. 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.

**Counseling Services**

The Herb Alpert School of Music offers advising, program planning in the major and general education requirements, and individual meetings with school and departmental counselors. For counseling information, contact the Office of Student Services and Enrollment Management, 1642 Schoenberg Music Building, 310-267-5536.

**Honors**

Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

**Dean’s Honors**

To receive Dean’s Honors, students must have at least 12 graded units per term with a grade-point average (GPA) of 3.8 for less than 16 units of work (3.7 GPA for 16 or more
Latin Honors

Latin Honors are awarded at graduation to students with superior grade-point averages. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average (GPA) at graduation that places them in the top five percent of the school (GPA of 3.934 or better) for summa cum laude, the next five percent (GPA of 3.852 or better) for magna cum laude, or the next 10 percent (GPA of 3.812 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. Contact the Office of Student Services and Enrollment Management or see Registrar’s honors for the most current Latin honors calculations.

Graduate Study

The advanced degree programs offer graduate students unique research opportunities when combined with special resources, such as Young Research Library, Music Library special collections, and UCLA performance halls. Fellowships, grants, and assistantships are available through the departments and the dean of the Graduate Division.

Admission

In addition to requiring that applicants hold a bachelor’s degree from an accredited U.S. institution or an equivalent degree of professional title from an international institution, each department in the school has limitations and additional requirements. In general, samples of creative work (auditions, portfolios, computer programs, etc.) are required. Detailed information is available on individual department websites and on program requirements for UCLA graduate degrees.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study chapter.

Degree Requirements

Requirements to fulfill each degree objective vary according to the degree and the department. For complete degree requirements, see program requirements for UCLA graduate degrees.

John E. Anderson Graduate School of Management

Alfred E. Osborne Jr., Interim 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

UCLA Anderson 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.

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JONATHAN AND KARIN FIELDING SCHOOL OF PUBLIC HEALTH

S. Jody Heymann, 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

100 / College and Schools / Jonathan and Karin Fielding School of Public Health
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 (out-
comes 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 sci-
ence facilities and schools of engineering, law, manage-
ment, 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 opportuni-
ties 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 fac-
ulty members are more than 15 members of the presti-
igious Institute of Medicine, three past presidents of the
American Public Health Association, and two past presi-
dents 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 aca-
demic and professional degrees in five departments. The
Department of Biostatistics develops statistical and analyt-
ical techniques for public health use. The Department of
Community Health Sciences addresses behaviors that pre-
vent disease and enhance health; health problems of
high-risk groups (women, children, the aged, the poor,
the disadvantaged, and racial and ethnic minorities);
health education and promotion; public health policy;
community nutrition; and international health. The
Department of Environmental Health Sciences elucidates
health hazards in the general environment and in the
workplace. The Department of Epidemiology is concerned
with the nature, extent, and distribution of disease and
health in populations. The Department of Health Policy
and Management deals with the organization, financing,
delivery, quality, and distribution of health care services.
The school also administers an interdepartmental degree
program in molecular toxicology.

See the Curricula and Courses chapter for more informa-
tion 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
credited institution comparable in standard and con-
tent to a bachelor’s degree from the University of Califor-
ния. 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 communities 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 non-health 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 service 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, international, natural, and human-induced disasters. It facilitates dialog between public health and medicine, engineering, physical and social sciences, and emergency management. This unique philosophy is applied to the education and training of practitioners and researchers, collaborative interdisciplinary research, and service to the community. The multidisciplinary center staff and participating faculty members have backgrounds that include emergency medicine, environmental health sciences, epidemiology, gerontology, health services, social work, sociology, urban planning, and public health.

The center is one of 15 Academic Centers for Public Health Preparedness funded by the Centers for Disease Control and Prevention. The goal of these national centers is to improve competencies of front-line workers in public health to respond to public health threats.

**Center for the Study of Racism, Social Justice, and Health**

The **Center for the Study of Racism, Social Justice, and Health** is a multidisciplinary, collaborative research center housed in the Community Health Sciences Department. 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. Therefore, the center encourages the translation of research findings for use by public health professionals, community organizations, and policy makers in their ongoing health equity efforts. Many center affiliates are working to identify, investigate, and explain the specific mechanisms by which various forms of racism may produce local, national, or global health inequities. Others are advancing critical racial theories or building community partnerships to guide their anti-racism, health-equity work. The center supports a community of scholars engaged in cutting-edge research, scholarship, public health practice, and community engagement to tackle questions such as how racism affects the physical and mental health of diverse populations, what tools are available to improve the rigor with which researchers study racism and its relationship to health inequities, which intervention strategies most effectively address contributions of racism to specific health inequities, and what are effective ways to teach public health students about racism. Affiliates represent disciplines of public health, his-
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 new media, the Global Media Center for Social Impact (GMI) helps content creators and reporters craft compelling stories 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 impacting global health.

The center is ideally poised to engage the entertainment industry in creating storylines by linking filmmakers, writers, 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 professionals 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 occupational safety and health problems; and educate non-academic stakeholders including business, labor, and vulnerable worker populations.

The characteristics of the center are embodied in a coordinated, interdisciplinary set of professional education, continuing education, research, and outreach activities that have a positive impact on the region’s and nation’s occupational health and safety practice.

The center has five programs at UCLA, one at UC Irvine, and two center-wide programs. The UCLA programs are Industrial Hygiene, Occupational and Environmental Health Nursing, Center Administration and Planning, Continuing Education, and Outreach. UC Irvine hosts the Occupational Medicine Program.

UCLA Center for Prevention Research

The UCLA Center for Prevention Research conducts prevention research that addresses the needs of children, adolescents, young adults, and their families. The center is a partnership of the Fielding School 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 policy-making, 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 policy-makers in public, private, and nongovernmental sectors. The undergraduate major offers students a rigorous conceptual and empirical foundation that prioritizes capacity for action by students exhibiting high motivations for public service and social change. Faculty members are actively engaged in research that addresses pressing national and regional issues including immigration, drug policy, prison reform, health care financing, transportation and the environment, national security, economic development, and the aging U.S. and world population.

Departments
The school comprises three academic departments—Public Policy, Social Welfare, and Urban Planning—and faculty members from such diverse disciplines as economics, geography, history, law, management, and political science. The school trains policy professionals, planners, and social workers for public, private, and nongovernmental 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.

Undergraduate Admission

Admission as a Freshman
Freshmen are admitted with a declared premajor in the College of Letters and Science. See the Curricula and Courses chapter for information on applying to the major.

Admission as a Junior
Transfer students are admitted directly to the Luskin School of Public Affairs.
Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and major requirements for the Bachelor of Arts degree.

University Requirements

The University of California has two requirements that undergraduate students must satisfy to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. Students who do not satisfy the Entry-Level Writing requirement prior to enrollment must pass an approved course or other program prescribed by their UC campus of residence. Only after satisfying the Entry-Level Writing requirement can they take an English composition course for transfer credit after enrolling at UCLA. See Degree Requirements in the Undergraduate Study chapter for details.

School Requirements

There are eight requirements that must be satisfied for the award of the degree.

Unit Requirement

Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 60 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with Advanced Placement Examination or International Baccalaureate Examination (transfer) credit may exceed the unit maximum by the amount of that credit. After 216 quarter units, enrollment may not normally be continued in the school without special permission from the dean.

Scholarship Requirement

Students must earn at least a 2.0 (C) grade-point average (GPA) in all courses undertaken at UCLA to receive a bachelor’s degree.

Students must also earn a 2.0 GPA in the major and satisfy both the course and scholarship requirements for the major, including preparation for the major.

Academic Residence Requirement

Students are in residence while enrolled and attending classes at UCLA with a declared major in the Luskin School of Public Affairs. Of the last 45 units completed for the bachelor’s degree, 35 units including the final 12 units must be 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.

New 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 grade 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 grade or better (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 grade or better (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 grade or better (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 list of Writing II courses approved by the school Faculty Executive Committee; see Registrar’s Writing II requirement for details. The course must be completed with a C grade or better (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 grade or better (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 grade or better (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 exams, 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 grade or better (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

**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 grade 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 and reciprocity requirements.

Courses that may be used to fulfill this requirement are published on Registrar's foreign language requirement.

**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 grade or better (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 2018 through spring quarter 2019, 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.

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 premajor status until requisite courses are satisfactorily completed. See the Curricula and Courses chapter.

The Major
A major consists of a group of coordinated upper-division courses and shall be designated as schoolwide, departmental, interdepartmental, or individual. Each course applied toward the major and preparation for the major must be taken for a letter grade unless otherwise stipulated.

A major consists of a minimum of 40 upper-division units. Students must complete their major with a scholarship grade-point average of at least 2.0 (C) in all courses in order to remain in the major.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Petitions for adjustment should be submitted to the dean of the school in hardship cases. See the Curricula and Courses chapter for more details.

Minors
Students may petition to be reviewed 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 student study list must include from 12 to 19 units. After the first term, students may petition to enroll in more than 19 units if they have an overall grade-point average of 3.0 (B) and attained at least a 3.0 (B) grade-point average the preceding term with all courses passed.

First-term transfer students from any other UC campus may carry excess units on the same basis as students who have completed one or more terms at UCLA; however, they are not encouraged to do so.

Minimum Progress
Students are expected to complete satisfactorily at least 36 units in any three consecutive terms while in residence; they are placed on probation if they fail to pass these units. They are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms while in residence.

Changing a Major
Students in good academic standing who wish to change their major may petition to do so provided they can complete the new major within the 216-unit limit and are on track to graduate on time. Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.

Students who fail to attain a grade-point average of 2.0 (C) in preparation for the major or major courses may be denied the privilege of entering or continuing in that major.

Re-entering Students and Their Majors
Students returning to UCLA to resume their studies after an absence of several years may find their previous major area of study is no longer available. They must select a current major in which to complete their studies. Consult with an academic adviser for assistance.

Concurrent Enrollment
Enrollment at a non-UC institution or UCLA Extension while enrolled at UCLA is not permitted except in extraordinary circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.

Credit Limitations
The following credit limitations apply to all undergraduate students. In many cases, units are not deducted until the final term before graduation. Students with questions should consult with an academic adviser.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Audit from Undergraduate Admission indicating the transferable units from former institutions; however, the following credit limitations may reduce the total number of trans-
ferred 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.

**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 Office of Undergraduate Programs, 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 the student records: a 3.75 grade-point average (GPA) in any one term, with at least 12 graded units and no NP or I grade; or a 3.66 GPA and at least 56 grade points during the term, with no NP or I grade. Dean's Honors are automatically recorded on the transcript.

**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 Registrar's Latin honors 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 equiva-

lent 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.

**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.

**Institute on Inequality and Democracy**

The Institute on Inequality and Democracy advances radical democracy in an unequal world through research, critical thought, and alliances with social movements and racial justice activism. Faculty members and students analyze and transform the divides and disposessions of our times, in the university and in our cities.

**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 1993 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.
Ralph and Goldy Lewis Center for Regional Policy Studies

The Lewis Center for Regional Policy Studies was established in 1988, 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, immigration, the environment, health insurance, labor and employment, and transportation.

Luskin Center for Innovation

The Luskin Center for Innovation serves as a point of intersection and interaction at UCLA, bringing together the brightest minds to concentrate on a specific, urgent Southern California policy issue. Los Angeles is at a critical juncture in many key areas of public policy. UCLA has the intellectual capital to bring together some of the top thinkers in the country, the most enterprising students, and relevant research to support innovative approaches to broad policy problems.

Located within the Luskin School of Public Affairs, the center was founded with a generous gift from the Luskins to engage the academic and public decision makers together in actively pursuing solutions to the Los Angeles region’s most urgent threats. The center turns conventional dividing lines between the academic and practical worlds into a meeting point—reaching across disciplines, sectors, and political points of view to actively pursue long-term solutions that can immediately be put into practice. The current funding cycle addresses environmental sustainability and pollution reduction in Los Angeles.

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 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 traditional and contemporary arts of Africa, the Americas, Asia, and Oceania. 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 with a unique opportunity to study buildings, cities, and their interdependence in one of the most structurally and ethnically diverse cities in the world. Students in the Art Department learn to understand the broad panorama of the visual arts, emphasizing experimentation. The Design|Media Arts Department focuses on electronic and digital imagery in visual communication design. The World Arts and Cultures/Dance Department offers innovative curricula focused on interdisciplinary and intercultural investigation of performance, the arts, and dance; and on establishing connections between cultural theory and artistic practice.

The school is also home to one undergraduate minor. The Visual and Performing Arts Education minor is designed to introduce arts students to the issues and methodologies in the field of arts education.

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.

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.

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.

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.

Writing I. The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3 or 3SL with a C grade or better (a C– grade is not acceptable).

Writing II. The Writing II 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 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.

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
5. Quantitative Reasoning
6. Foreign Language
7. Upper-Division Nonmajor Courses
8. Diversity
9. 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.
Students whose native language is not English may not need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be completed with a C grade or better (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 Registrar’s Writing II requirement for details. The course must be completed with a C grade or better (a C– or Passed grade is not acceptable).

A Writing II course 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 grade or better (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 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 Registrar’s foreign language requirement 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.
GENERAL EDUCATION REQUIREMENTS

Foundations of the Arts and Humanities
Literary and Cultural Analysis. 1 course
Philosophical and Linguistic Analysis. 1 course
Visual and Performance Arts Analysis
and Practice 1 course
Total = 15 units minimum

Foundations of Society and Culture
Historical Analysis 1 course
Social Analysis 1 course
Third course from either subgroup 1 course
Total = 15 units minimum

Foundations of Scientific Inquiry
Life Sciences/Physical Sciences 2 courses
Two courses from either subgroup. If both courses are selected from the same subgroup, they must be from different departments.
Total = 8 units minimum

Total GE 8 courses/38 units minimum

A Writing II course also approved for general education may be applied toward the relevant general education foundational area.

FOUNDATIONS 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 Student Services Office to determine applicable GE credit.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities. Three 5-unit courses, one from each subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture. Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- Historical Analysis
- Social Analysis

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 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 the school director of student services, 2200 Broad Art Center.

**Minors and Double Majors.** Students may petition to be reviewed 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. 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 student 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 passed. Contact the Student Services Office no later than the end of the second week of instruction.

**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 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 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.

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 counselors from matriculation through graduation. For 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
To receive Dean’s Honors, students must have at least 12 graded units per term with a grade-point average of 3.8 for fewer than 16 units of work (3.7 GPA for 16 or more units). The honor is posted on the transcript for the appropriate term. 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.

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 3.922 or better) for summa cum laude, the next five percent (GPA of 3.869 or better) for magna cum laude, or the next 10 percent (GPA of 3.815 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. Contact the Student Services Office or see Registrar’s honors 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. 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
Eight interdisciplinary research centers—the Art and Global Health Center, Art|Sci Center, cityLAB, Experimental 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 resident specialty programs foster new lines of research that lead to better treatment options. An active continuing education program, directed by UCLA faculty members, offers a variety of hands-on courses for members of the dental profession and their auxiliaries.

**Degrees and Programs**
The School of Dentistry offers the following degrees:
- Dental Surgery DDS
- Oral Biology MS, PhD

**Articulated Degree Programs**
- Oral Biology MS/Dentistry DDS
- Oral Biology MS/Dentistry Certificate
- Oral Biology PhD/Dentistry Certificate
- Oral Biology PhD/Dentistry DDS

**Concurrent Degree Programs**
- Dentistry DDS/Management MBA

In addition, the school has a Professional Program for International Dentists (PPID) and a number of dental specialty residency programs. For information on the MS and PhD programs in Oral Biology, for which admission to the School of Dentistry is not required, see program requirements for UCLA graduate degrees.

**Pre-Dental Curriculum**
For details on the three-year pre-dental curriculum, see Career Center pre-health.

**DDS Degree**
The UCLA dental curriculum leading to the degree of Doctor of Dental Surgery (DDS) is based on the quarter system. The course of study usually takes four academic years of approximately nine months each, with three required summer quarters between the first/second, second/third, and third/fourth years. The curriculum is designed to give students experience in all phases of clinical dentistry.

The dental curriculum consists of three principal areas: basic health sciences courses, didactic dental courses, and clinical experience. The first two years of the curriculum are chiefly devoted to didactic, laboratory, and general clinical coursework. The final two years emphasize training and instruction in clinical fields, including endodontics, fixed prosthodontics, operative dentistry, oral diagnosis and treatment planning, oral radiology, oral and maxillofacial surgery, anesthesiology, orthodontics, pediatric dentistry, periodontics, and removable prosthodontics.

**Postgraduate Programs**
Opportunities for postgraduate study include a one-year general practice residency program; a one-year advanced education in general dentistry program; a one-year residency in maxillofacial prosthodontics; a six-year oral and maxillofacial surgery residency training program; three-year prosthodontics, periodontics, orthodontics, and dental anesthesiology programs; two-year programs in the specialties of endodontics, oral radiology, and orofacial pain and dysfunction; and a 26-month program in pediatric dentistry.

Information on postgraduate programs can be obtained by visiting 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, the 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 contributions to scholarship and law reform 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 and regulation of business, families, communities, and individual liberties; the powerless and homeless; the many permutations of a race-conscious society—all are subjects of investigation and study. Faculty members are committed to being intellectually and professionally demanding of students and supportive at the same time, encouraging and fostering a genuine spirit of collaboration and community.

Law students select courses from an intellectually rich curriculum in private or public law and theory. 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; media, entertainment, technology, and sports law; international and comparative law; law and philosophy; and public interest law and policy. Situated at a major gateway to the Pacific Rim, UCLA is a center of international programs; human rights and international and comparative law are dynamic, integral parts of the law school curriculum, with courses addressing the European Union, modern Japan and China, Islam, international trade and business transactions, and a host of related topics. Part of an outstanding research university, possessed of rich cultural resources, and located in a beautiful garden setting allowing year-round outdoor study and reflection, extensive UCLA educational programs afford law students myriad interdisciplinary opportunities in the classroom and through independent research.

The school’s nationally recognized clinical and experiential 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 clinical and experiential 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 patent law, 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, is truly outstanding. It features interviewing and counseling of clients; and drafting of legal memoranda, contracts, and advice letters; thereby developing legal research capabilities and writing prowess.

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, judges, business executives, law professors, and academic administrators.

**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/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 by which the school operates are available on the 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 begin-
ning 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 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 residency 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 disciplines within UCLA. 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 office of the assistant dean for students.

Curriculum
Courses of instruction are offered within the school and supervised educational experiences outside it, in an effort to enable students to think intelligently 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 are exposed to intensive study of legal reasoning in a series of 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 schol-
arship, 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 Specializations
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, 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 Specialization
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 Specialization
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 Specialization
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 Specialization
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 Specialization
Recognizing the considerable debate about the proper role of the law in creating and sustaining a just society, the 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. They work in a variety of settings, with focus on social justice issues ranging from immigration, labor, and international human rights to health care, welfare and poverty, and civil rights. Faculty members are leaders in their respective fields and have distinguished themselves by the quality of their scholarship and teaching. They represent a broad cross-section of interests on social justice issues, and bring to the classroom a depth of knowledge from a wide range of experiences and research perspectives.
Academic Specializations for LLM Degree

Business Law Specialization
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 Specialization
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 Specialization
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 course-work that may range from international business to comparative constitutional law to international human rights.

Law and Sexuality Specialization
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 Specialization
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 Specialization
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 work in a variety of settings, with focus on social justice issues ranging from immigration, labor, and international human rights to health care, welfare and poverty, and equality rights.
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.

Clinical and Experiential Programs
The School of Law has long been recognized for its innovative approach to clinical 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 classroom into a real-world laboratory through the integration of theory and practice. 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 clinical 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 clinical and experiential 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 clinical education into areas of the legal profession that have long remained outside the scope of hands-on training.

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 with a generous gift from Dan A. Emmett and his family, 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. It also works hand in hand with the UCLA Sustainable Technology and Policy Program, a collaboration between the School of Law and the Fielding School of Public Health. 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.

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.

Globalization and Labor Standards Program
For students interested in labor and employment issues, UCLA has a Globalization and Labor Standards (GALS) Program that maintains a web-based library of law review articles on all issues of international labor rights and global labor standards. GALS also publishes a newsletter, organizes conferences, and hosts regular speaker programs. Student contributors are involved in every stage of the project.

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 is one of the best in the nation. Permanent faculty members, who have built their reputations in the field, offer numerous international and comparative law courses such as human rights, 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
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 Indian 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 better serve society in myriad ways. Students gain significant exposure and experience in public service through clinical courses, a pro bono program, an externship program, extensive public interest advising and informational programming, and numerous student organizations. The Office of Public Interest Programs, 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. The office also supports the student-run Public Interest Law Fund (PILF) and its annual auction, which raises monies to help fund summer public service internships.

**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.

**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.

**Transnational Program on Criminal Justice**

The Transnational Program on Criminal Justice (TPCJ) fosters research and discussion on issues of domestic, comparative, international, and transnational criminal justice systems; and sponsors events to engage students and the criminal justice, comparative, international law scholarly community. The TPCJ serves as a resource for producing timely collaborative research on diverse topics at the intersection of criminal justice, comparative and international law, and human rights law. The goal is to generate knowledge and analysis not only for the scholarly community, but also for practitioners and policymakers.

**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. The main activities of the center include research, conferences, and the Empirical Legal Scholars Program.

**Williams Institute on Sexual Orientation and Gender Identity Law and Public Policy**

The Charles R. 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. For students interested in learning more about entertainment law, the program helps them earn externships with entertainment-related busi-
nesses, 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 alike 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 place-
ment 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 grade or better (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 grades of C or better (C– grades are 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 grade or better (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 grade or better (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 grade or better (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 Registrar’s

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 grade or better (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 Writing I and Writing II requirements. No transfer student is admitted to the school without completing, with a C grade or better (C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.
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 Studies 10 is recommended for this foundational area.

**Foundations of Scientific Inquiry.** Four courses, two from each subgroup:
- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the
most important issues, developments, and methodologies in contemporary science.

**Foundations Course Lists.** Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the Schedule of Classes.

**Intersegmental General Education Transfer Curriculum**

Transfer students from California community colleges must fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Because of course sequencing and the rigor of the program, students must fulfill the general education requirements prior to transfer. Additional requirements are listed under Admission and Preparation for the Major in the Curricula and Courses chapter.

**Major Requirements**

There are two types of requirements that must be satisfied for award of a degree: preparation for the major and the major. See the Curricula and Courses chapter for details.

**Policies and Regulations**

Degree requirements are subject to policies and regulations, including the following:

**Student Responsibility**

Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

**Study List**

The presentation of study lists by the students and their acceptance by the school evidences an obligation on the part of the students to faithfully perform the designated work to the best of their ability. Withdrawal from, or neglect of, any course entered on the study list—or a change in program 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 Admissions 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**

To receive Dean’s Honors, undergraduate students must have at least 12 graded units per term with a grade-point average of 3.75. The honor is recorded on the transcript for the appropriate term. 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.

**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 3.969 or better) for summa cum laude, the next five percent (GPA of 3.913 or better) for magna cum laude, or the next 10 percent (GPA of 3.830 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 Registrar’s honors, 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*.

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**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 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. Specializations 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 and computer-generated animation; and a laboratory and research facility for digital media.

The MA and PhD programs are supported by UCLA library collections and the UCLA Film and Television Archive, the largest in the U.S. outside the Library of Congress. This archive forms a unique and priceless resource for research and classroom instruction. MA and PhD faculty members and students also participate in various campus organized research units.

Teaching Credentials

Students interested in obtaining instructional credentials for California elementary and secondary schools should contact the Teacher Education Program, 1009 Moore Hall.

Degrees

The School of Theater, Film, and Television offers the following degrees and undergraduate minors:

Film and Television BA, MA, MFA, CPhil, PhD
Individual Field BA
Theater BA, MFA
Theater and Performance Studies CPhil, PhD

Undergraduate Minors

Film, Television, and Digital Media
Theater

Undergraduate Admission

In addition to the UC undergraduate application, departments require applicants to submit additional supporting materials. Information on departmental requirements is available on the school admissions web page.

Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and department requirements for a Bachelor of Arts degree.

University Requirements

The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in the Undergraduate Study chapter for details.

Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.

School Requirements

There are seven requirements that must be satisfied for award of a degree.

Unit Requirement

Students must satisfactorily complete for credit a minimum of 180 units for the bachelor's degree. At least 64 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with Advanced Placement Examination or International Baccalaureate Examination (transfer) credit may exceed the unit maximum by the amount of that credit.

Scholarship Requirement

Students must earn at least a 2.0 (C) grade-point average in all courses undertaken at the University of California for receipt of the bachelor's degree, and in all upper-division courses in the major, and in all courses applied toward the general education requirements.
Academic Residence Requirement

Students are in residence while enrolled and attending classes at UCLA with a declared major in the School of Theater, Film, and Television. Of the last 45 units completed for the bachelor’s degree, 35 must be earned in residence at the school. No more than 18 of the 35 units may be completed in UCLA summer sessions.

Courses offered by UCLA Extension may not be applied toward any part of the residence requirements.

Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-semester 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 grade 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 grade or better (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 grade or better (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 grade or better (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 in the sequence from a faculty-approved list of Writing II courses; see Registrar’s Writing II requirement for details. The course must be completed with a C grade or better (a C– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill the upper-division nonmajor requirement and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I and Writing II requirements. No transfer student is admitted to the school without completing, with a C grade or better (C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Foreign Language Requirement

Students must 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 Registrar’s foreign language requirement.

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 counselor or see the Schedule of Classes.

Reciprocity with Other UC Campuses

Students who transfer to UCLA from other UC campuses or who change their major from the College or another UCLA school and have met all GE requirements prior to attending UCLA or changing their UCLA major are not required to complete the School of Theater, Film, and Television GE requirements. Written verification from the dean at the other UC campus or UCLA College or school is required. Verification letters should be sent to UCLA.

<table>
<thead>
<tr>
<th>GENERAL EDUCATION REQUIREMENTS</th>
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<tbody>
<tr>
<td>Foundations of the Arts and Humanities</td>
</tr>
<tr>
<td>Literary and Cultural Analysis</td>
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<tr>
<td>Philosophical and Linguistic Analysis</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis and Practice</td>
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<tr>
<td>No more than two courses from any one subgroup.</td>
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<td>Total = 25 units minimum</td>
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<tr>
<td>Foundations of Society and Culture</td>
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<tr>
<td>Historical Analysis</td>
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<tr>
<td>Social Analysis</td>
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<tr>
<td>Third course from either subgroup</td>
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<tr>
<td>Total = 15 units minimum</td>
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<tr>
<td>Foundations of Scientific Inquiry</td>
</tr>
<tr>
<td>Life Sciences</td>
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<tr>
<td>Physical Sciences</td>
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<tr>
<td>Total = 8 units minimum</td>
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<tr>
<td>Total GE</td>
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A course taken to meet the Writing II requirement may not also be applied toward a GE requirement.
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 adjustment 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.

Due to curriculum changes, students in the Theater major are no longer 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 registration and 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 3.942 or better) for summa cum laude, the next five percent (GPA of 3.912 or better) for magna cum laude, and the next 10 percent (GPA of 3.837 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 Registrar’s honors, 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. Donor awards are available through the School of Theater, Film, and Television.

Admission
In addition to requiring that applicants hold a bachelor's degree from an accredited U.S. institution or an equivalent degree of professional title from an international institution, each department in the school has limitations and additional requirements. Detailed information can be found in program requirements for UCLA graduate degrees.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study chapter.

Degree Requirements
Requirements to fulfill each degree objective vary according to the degree and the department. For complete degree requirements, see program requirements for UCLA graduate degrees.
Curricula and Courses

**Course Lists**

Departments and programs are listed alphabetically, with the College or school administering the program identified in the program heading. Curricula and courses are listed under each program. Every effort has been made to ensure the accuracy of the information presented. However, all courses, course descriptions, instructor designations, and curricular degree requirements described herein are subject to change or deletion without notice. Changes to course descriptions are available at the Registrar’s course descriptions web page. For current class offerings by term, see the Schedule of Classes.

For complete graduate degree requirements, see program requirements for UCLA graduate degrees.

**Undergraduate Course Numbering**

Undergraduate courses are classified as lower division and upper division. Lower-division courses (numbered 1–99) are often surveys offering preliminary introduction to the subject field. They are designed primarily for freshmen and sophomores, though upper-division students may enroll for unit and grade credit. Lower-division courses may not be applied toward graduate degrees.

Upper-division courses (numbered 100–199) are open to all students who have met the requisites stated in department requirements or the course description. Preparation generally includes at least one lower-division course in the subject or two years of college work. With approval of the major department, graduate students may take 100-series courses toward satisfaction of master’s degree requirements.

**Undergraduate Seminars and Tutorials**

Fiat Lux freshman seminars (numbered 19) are taught by faculty in areas of their expertise. They introduce freshmen to topics of intellectual importance and enable them to participate in critical discussion of these topics with a small group of peers. The seminar series takes its name from the motto of the University of California: Fiat Lux—Let There be Light!

Sophomore seminars (numbered 88) are department-sponsored courses designed to provide sophomores with the opportunity to participate in small seminars to enhance writing, verbal, and analytical skills.

Honors seminars and tutorials (numbered 89/189 and 89HC/189HC) are primarily designed for students in the College Honors Program. They are adjunct to lecture courses and explore lecture topics in more depth through supplemental readings, papers, or other activities.

Student Research Program tutorials (numbered 99) offer students entry-level research experiences. Students serve as apprentices working with an individual faculty member or in a research group. Students are graded on a Passed/Not Passed (P/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 later toward a higher degree.

Graduate courses numbered 300–399 are highly specialized teacher-training courses that are not applicable toward UC minimum requirements for graduate degrees. They are acceptable toward the bachelor’s degree only at the discretion of the individual College or school.

Graduate courses numbered 400–499 are designed for professional programs leading to graduate degrees other than the MA, MS, and PhD. These courses may not be used to satisfy minimum graduate course requirements for the MA or MS degree but may apply as electives.

Individual study and research courses (numbered 500–599) are reserved for advanced study and are not open to undergraduate students. Courses are numbered as follows: 595/596, directed individual study or research; 597, preparation for master’s comprehensive or doctoral qualifying examination; 598, master’s thesis research and preparation; and 599, doctoral dissertation research and preparation. Courses numbered 501 are not individual study and research but are cooperative programs held in conjunction with USC. See individual department sections for specific limitations on 500-series courses.

**Note:** These definitions do not apply to courses in the School of Law, which maintains its own course numbering system.

**Temporary Course Offerings**

Courses that are temporary in nature, such as one-term-only or one-year-only, are not in the catalog. Their descriptions can be found in the Schedule of Classes.

**Concurrent and Multiple-Listed Courses**

Concurrently-scheduled courses (identified by a capital C before the course number) are pairs of courses, usually within a single department or program, for which credit is given at two levels—undergraduate and graduate. Concurrently-scheduled courses are offered at the same time and place with the same instructor, but work levels and performance standards are evaluated differently for students at each level. (Concurrently-scheduled courses as described here should not be confused with concurrent courses offered through UCLA Extension.)

Multiple-listed courses (identified by a capital M before the course number) are courses offered jointly by more than one department and/or subject area. They need not have identical course numbers, but all other aspects of the course—such as title, units, requisites, format, and level—must be the same. For example, Language in Culture is offered by the Department of Anthropology (Anthropology M150) and the Department of Linguistics (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 – AIR FORCE ROTC
College of Letters and Science

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310-825-1742
AFROTC e-mail

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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 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 four-week 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, and in the case of the POC, participation in 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 Courses
A. Leadership Laboratory. (No credit) Labortory, three hours. Mandatory for and limited to Air Force ROTC cadets. Provides cadets with practical command and staff leadership experiences through performance of various tasks within framework of organized cadet corps. As integral part of aerospace studies curriculum, provides experiences designed to develop leadership potential and serves as orientation to active duty, P/NP grading.
1A-1B-1C. Foundation of U.S. Air Force, (2-2-2) Lecture, one hour. Introduction to U.S. Air Force. Examination of general aspects of Air Force, leadership, benefits, and opportunities for officers. Foundation for becoming an officer, including customs and courtesies, dress and appearance, team building, communication skills, and core values. Lessons on war and U.S. military, Air Force operations, principles of war, and airpower. Provides students with understanding for employment of air and space power, from institutional, doctrinal, and historical perspectives. Students are introduced to Air Force way of life and gain knowledge on what it means to be an officer and leader.
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 Courses
20A-20B-20C. Evolution of U.S. Air Force Air and Space Power. (2-2-2) Lecture, one hour. Examination of general aspects of air and space power through historical perspective and incorporating foundational leadership lessons. Continuation of history of Air Force through World War I and World War II. Discussion of elements of joint fight with introductions to sister services. Provides students with understanding for employment of air and space power, from institutional, doctrinal, and historical perspectives. Leadership fundamentals as preparation for field training, P/NP 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.
The Department of African American Studies offers a Bachelor of Arts degree, an undergraduate African American Studies minor, a Master of Arts degree, and a concurrent degree program (African American Studies MA/Law JD). A major or minor in this field offers a broadening of cultural experiences and perspectives for those seeking more information about African Americans and the African diaspora. Career-wise, all students profit from African American studies courses in an era when employers and academic institutions are actively seeking those with multicultural and interdisciplinary skills and backgrounds.

The fundamental goal of the African American Studies curriculum is to offer students a comprehensive and multidisciplinary introduction to the crucial sociocultural and social justice issues facing African Americans and their counterparts in other areas of the African diaspora today. The curriculum is designed to meet this goal in two primary ways. First, it offers students an interdisciplinary exposure to particular features of the African American experience. Core courses offer an in-depth understanding of historical, anthropological, sociological, psychological, economic, and political aspects of African America. The curriculum also offers opportunities to study the literary, musical, and artistic heritage of peoples of African descent. Second, students analyze key issues through additional courses that bring to bear concepts, theories, and methods of traditional academic disciplines in areas such as cultural analysis and production, social justice, and public policy. Students may also do individualized study with a professor and/or an internship for course credit.

### Undergraduate Study

#### African American Studies BA Learning Outcomes

The African American Studies major has the following learning outcomes:

- Critical understanding of key historical moments in the field
- Critical engagement with humanistic and social-scientific approaches to the study of the African American experience
- Ability to perform research and use critical writing skills
- Critical understanding of the concepts of race and racism, and their relationship to other identities such as class, gender, and sexual orientation
- Knowledge of key African American aesthetic, literary, musical, and other cultural traditions
- Knowledge of key social-scientific theories that explain and describe the African American experience

#### Preparation for the Major

**Required:** Two courses from African American Studies M5, 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 civilization of Africa course or equivalent.

Refer to the [UCLA transfer admission guide](https://admissions.ucla.edu/) 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 M104C, 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, M110A, M110B, M111, CM112A, CM135A, CM135B, M150D, M158A through M158E, M179A, 188A, 188B, C191, and (b) social sciences—African American Studies M114C, M118, M120, M144, M150D, M154C, M158A through M158E, M159P, M164, M165, M167, M172, M173, M178, M179A, M182A, M182B, M182C, M183A, M183B, M183C, 188A, 188B, C191, M194A, M194B.

No more than 8 graded units of African American Studies courses.

### Undergraduate/Graduate Program

Students are encouraged to engage in a culminating activity, such as an internship, independent study, honors thesis, service learning, or CULP project.

#### 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 to the African American Studies student affairs officer.

**Required Lower-Division Courses (9 to 10 units):** Two courses from African American Studies M5, 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 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 student affairs officer before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the mi-
nor. 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 African American Studies offers the Master of Arts (MA) degree in African American Studies. A concurrent degree program (M.A./Law JD) is also offered.

African American Studies

Lower-Division Courses
1. Introduction to Black Studies. (5) Lecture, three hours; discussion, one hour. Introduction of methods, theories, conceptual frameworks, and key debates in black studies. Interrogation of how race structures notions of identity, with exploration 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.

M5. Social Organization of Black Communities. (5) (Same as Sociology 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.

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

M10A. History of Africa to 1800. (5) (Same as History M10A.) Lecture, three hours; discussion, one hour. Exploration of development of African societies from earliest times to late 18th century. P/NP or letter grading.

M18. Leadership and Student-Initiated Retention. (2) (Same as American Indian Studies M18, Asian American Studies M18, and Chicana and Chicano Studies M18.) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M118. Exploration of issues of 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. Freshman/Lux Freshman Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course as individual study and lower-division 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 on 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
M102. Culture, Media, and Los Angeles. (6) (Same as Asian American Studies M160 and Honors College M1102.) Lecture, four hours; screenings, two hours. Designed for juniors/senior. Role of media in society and its impact on the culture environment, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

M103A. African American Theater History: Slavery to Mid-1800s. (4) 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.

M103B. African American Theater History: Minstrel Stage to Rise of African 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 African musical. Letter grading.

M103E. Modern African American Drama: Harlem Renaissance to Black Arts Movement. (4) (Same as Theater M103E.) Lecture, three hours. Survey and examination of plays and social-economic context of U.S. and elsewhere in Africa to 1960s. Exploration of the sociohistorical context out of which plays were created and critical essays that illustrate development of African American plays and their significant involvement in creation of diversified American theatrical tradition. Letter grading.

M104A. Early African American Literature. (5) (Same as English M104A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Mandatory introduction of African American literature from 18th century to 1960s until birth of modern civil rights era. Examination of sociohistorical context out of which plays were created and critical essays that illustrate development of African American literature and their significant involvement in creation of diversified American theatrical tradition. Letter grading.

M104B. African American Literature from Harlem Renaissance to 1960s. (5) (Same as English M104B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of 20th-century African American literature from Harlem Renaissance to 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, Ntozake Shange, Alice Walker, Ishmael Reed, Audre Lorde, Paule Marshall, and Ernest Gaines. P/NP or letter grading.

M104C. 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 1950s through 1970s. Topics include rise of Black Arts Movement of 1960s and emergence of black women's writing in early 1970s, with focus on authors such as Lorraine Hansberry, Amiri Baraka, Ntozake Shange, Alice Walker, Ishmael Reed, Audre Lorde, Paule Marshall, and Ernest Gaines. P/NP or letter grading.

M104D. 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 topics with emphasis on diversity of perspectives and styles that have emerged over past 30 years or so. Authors may include Toni Morrison, August Wilson, Octavia Butler, Anna Deavere Smith, June Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.

M104E. 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 literature. 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. Examination of black theater for Modern Civil Rights Movement of 1960s until today. 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? Why do we think what we think? 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 and economic context and elsewhere in African diaspora. Drawing on interdisciplinary black studies scholarship of range of writers that may include Ida B. Wells, Carter G. Woodson, Claudia Jones, W.E.B. Du Bois, Frantz Fanon, Audre Lorde, Frantz Fanon, Walter Rodney, George Jackson, Angela Davis, James Baldwin, Studs Terkel, Langston Hughes, Nikki Giovanni, Alice Walker, Toni Morrison, Ishmael Reed, Audre Lorde, Paule Marshall, and Ernest Gaines. P/NP or letter grading.

M103K. Contemporary Black Theater: Modern Civil Rights Era to Black Lives Matter and Beyond. (4) (Same as Theater M103E.) Lecture, three hours. Examination of black theater for Modern Civil Rights Movement of 1960s until today. 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? Why do we think what we think? 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 and economic context and elsewhere in African diaspora. Drawing on interdisciplinary black studies scholarship of range of writers that may include Ida B. Wells, Carter G. Woodson, Claudia Jones, W.E.B. Du Bois, Frantz Fanon, Audre Lorde, Frantz Fanon, Walter Rodney, George Jackson, Angela Davis, James Baldwin, Studs Terkel, Langston Hughes, Nikki Giovanni, Alice Walker, Toni Morrison, Ishmael Reed, Audre Lorde, Paule Marshall, and Ernest Gaines. P/NP or letter grading.

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aspora, modern movement and migration, and debates on racial and geographic divide between African North and south of Sahara. P/NP or letter grading.

M107. Cultural History of Rap. (5) Same as 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 influence 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 so many different political tendencies—freedom and democratic values, threats to order and civil society, freedom and social life, money, black liberation and nationalism, conservatism, surrealism, socialism, etc.—throughout 20th century? What about jazz enables people to read their political aspirations and hopes in what is already an instrument, improvised music? Exploration of history of ideas about jazz, specifically how writers, activists, movements, and musicians understood politics of jazz. Examination of social and cultural context of jazz and its intellectual and cultural significance, the role of jazz in the struggle for freedom, and how jazz has been used as a medium of political and social protest.

P/NP or letter grading.

M109. Women in Jazz. (4) Same as Ethnomusicology M110. Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied 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.

M110A-M110B. African American Musical Heritage. (5-6) Same as Ethnomusicology M110A-M110B. Lecture, four hours; discussion, one hour, P/NP or letter grading. M110A. Sociocultural history and survey of African American music covering Africa and its influence on music of 17th through 19th centuries; minstrelsy and its representation on television, film, and theater; religious music, including hymns, spirituals, and gospel; black music of Caribbean and Central and South America; and music of black Los Angeles. M110B. 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.

M111. Ellingtonia. (4) Same as Ethnomusicology M111. Lecture, three hours. Music of Duke Ellington, his life, and the persistence 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 such composers as Billy Strayhorn and musicians Johnny Hodges, Cootie Williams, and Mercer Ellington. P/NP or letter grading.

M112A. African American Music in California. (4) Same as Ethnomusicology CM112. Lecture, four hours. 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 CM212A. P/NP or letter grading.

M113. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Agency. (4) Same as Education CM113. Lecture, four hours; discussion, one hour. Exploration of policies and practices, art and activism, and other forms of agency engaging with criminal justice. Concurrently scheduled with course CM212. P/NP or letter grading.

M114C. African American Political Thought. (4) Same as Labor and Workplace Studies M114C and Political Science M114C. Lecture, three 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 by African Americans. Debates and conflicts in black political thought, historical context of African American social movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

M118. Student-Initiated Retention and Outreach Issues in Higher Education. (4) Same as American Indian Studies M118, Asian American Studies M118, and Chicana and Chicano Studies M118. Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLA as case. May be repeated twice for credit. Letter grading.

M120. Race, Inequality, and Public Policy. (4) Same as Social Science M120. Lecture, three hours. 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.

M124. Comparative Racialization and Indigeneity. (4) Same as Asian American Studies M124. Lecture, three hours. Examination of processes and histories of racialization and colonization in U.S. Discussions, film screenings, guest speakers, and reading assignments, with focus on issues of cultural survival, em- pire, Indigeneity, migration, resistance, sovereignty, and war. P/NP or letter grading.

CM135A. African American Art before 1900. (4) Formerly numbered CM112D. Same as Art History CM135A. Lecture, three hours. Detailed inquiry into works of African American artists from Colonial expansion to the Civil War. Consideration of themes and social issues as they are reflected in the works of black artists. Contributes to understanding of issues in African American life and society.

CM135B. African American Art, 1900 to 1963. (4) Formerly numbered CM112E. Same as Art History CM135B. Lecture, three hours. Detailed inquiry into works of African American artists from Colonial expansion to the Civil War. Consideration of themes and social issues as they are reflected in the works of black artists. Contributes to understanding of issues in African American life and society.

140. Radical Black Imaginaries: Politics, Identity, and Struggle. (4) Lecture, four hours. Exploration of some more powerful visions for freedom, liberation, and racial justice in African diasporic world, with focus on political and cultural movements, and creative expressions that formed part of radical black imagination during last century. Following of black diasporic citizens from Africa to Harlem to Ha- vana as they struggled for freedom within and beyond movements against colonialism and racial oppres- sion, for Pan-Africanism, feminism, and Negritude, and through utopian art forms like Afro-Futurism. Consideration of how black activists, artists, and in- tellecuals 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 history in U.S., from ante-bellum era to present. By situating black women's experiences within major historical transi- tions in American history, exploration of key themes, including gender formation, sexuality, labor and class, collective action, gender and sexual violence, repro- duction, and role of law. How have intersecting forms of oppression impacted black women's historical lives? How have black women's experiences through interre- lated 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 political and collective struggles for freedom from racism, sexism, and heteropatriarchy, as well as black women's participation in and challenge to social movements, including suffrage, women's liberation, civil rights, and black power. Investigation of black women's 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. Historical examination of the prison-industrial system and how current crisis is part of long-term punishment in the U.S. How have black women's and men's experiences been shaped by and beyond systems of racialized punishment, and what are the responses to them? What are the connections between the emergence of mass incarceration and the war on drugs? How do race, gender, and class impact these experiences? How do the experiences of non-black women intersect? Letter grading.

M144. Ethnic Politics: African American Politics. (4) Same as Political Science M182B. Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one or more courses in political science or related field. Synthesis of historical events, political issues, and current debates on political parties and movements in the African American community, and the role of the African American vote in U.S. elections. P/NP or letter grading.

M146. Politics of Struggle: Race, Solidarity, and Resistance. (4) Same as Chicana and Chicano Studies M146. Lecture, four hours. Examination of Chicana/Chicano intergroup relations and political co- alitions with both Latino and non-Latino groups, as well as alliances with Asian and Pacific Islanders, and Euro-Americans, especially in communities undergoing rapid changes in demo- graphic composition. Letter grading.

M150D. Recent African American Urban History: Funk Music and Politics of Black Popular Culture. (4) Same as History M150D. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Course is designed as an introduction to funk music and its relation to the Black Struggle for Freedom. Examines Funk and other musical styles, focusing on how black artists, music, and culture have shaped movements for freedom in the 1960s and 1970s.

M154C. Black Experience in Latin America and Caribbean I. (4) Same as Political Science M154A. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Focuses on the experience of black persons in Latin America, with emphasis on the role of African Americans in the region.

M154D. Black Experience in Latin America and Caribbean II. (4) Same as Political Science M154B. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Focuses on the experience of black persons in Latin America, with emphasis on the role of African Americans in the region.
M150B-M152C. Introduction to Afro-American History. (4-6) Same as History M150B-M152C. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Afro-American 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 milieus. P/NP or letter grading.


M159P. Constructing Race. (4) (Same as Anthropology M144P and Asian American Studies M169.) Lecture, three hours. 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 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 juniors/seniors. Exploration of intersection 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 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 Chicana and Chicano Studies M167.) Lecture, three hours. 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.

M170A. Diasporic Nonfiction: Media Engagements with Memory and Displacement I. (4) (Same as Chicana and Chicano Studies M170A.) Seminar, three hours. Video production course, with emphasis on autobiographical, critical, and performance-based modes of nonfiction media making, drawing on practices of diasporic filmmakers who have grappled with suppressed collective memories of displacement, trauma, exile, and migration. What does it mean to make videos about memory in places where direct cues to history cannot be seen? Introduction to concepts from films and readings. Production assignments and screenings, with focus on questions of how to represent history, memory, family dynamics, and biological and cultural difference according to perspectives and interests of diasporic subjects. In Progress grading (credit to be given only on completion of course M170B).

M170B. Diasporic Nonfiction: Media Engagements with Memory and Displacement II. (4) (Same as Chicana and Chicano Studies M140B.) Seminar, three hours. Enforced prerequisite: course M170A. Students complete 20- to 30-minute video projects about issues or experiences central to everyday lives of collectives of diasporic peoples. They learn to propose, record, edit, and distribute one socially engaged nonfiction video and draw on their experiences from coursework to critique, create, and develop performances, designing public performances, interviewing, and recording everyday life. 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; discussion, one hour. 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 lectures, readings, and guest speakers. Exploration of some historic contributions of civil rights struggles and role of nonviolent action throughout recent U.S. history. Examination of particular lessons learned from these movements for impact social change organizing in Los Angeles. P/NP or letter grading.

174. Intra-racial Differences in 20th-Century Black America. (4) Lecture, four hours. Discussion of evolution and change in black community by focusing on evolution of differences—specifically class differences—that have minimized black progress when compared with other races and cultures like Asians and Jews. Examination of origins and plight of lower-class blacks in stark juxtaposition with black leadership and African-Americans occupying higher socioeconomic levels. Letter grading.

175. Racial and Ethnic Disparities in Healthcare. (5) Lecture, four hours. Designed for students who are seeking to become healthcare professionals so they understand importance of how race and ethnicity impact delivery of healthcare. Focus on need to increase diversity of health professions workforce as means to address health disparities. Letter grading.

176. Race, Racism, and Law. (4) (Lecture, four hours; discussion, one hour. Throughout American history, racism has been embedded in legal systems. In recent years, the confluence of race, racism, and law has manifested in new forms and is linked to law. Both perpetuation of racism and struggle against it have involved various legal institutions, especially U.S. Supreme Court. Lawyers on all sides have often played pivotal roles in establishing legal standards defining political, economic, social, and psychological status of African Americans (and other racial and ethnic minorities). Historical overview and in-depth examination of selected major highlights of these legal developments, including Constitutional sources of racism, legal foundations of establishing and eliminating slavery, major Supreme Court decisions before and during civil rights and contemporary legal treatment of civil rights protections. Examination of legal processes and legal profession in broader historical and political context. Letter grading.

177. African Americans in Higher Education. (4) Lecture, four hours. Discussion and exploration of challenges facing black students at predominantly white institutions (PWIs), ways in which Proposition 209 has affected black student community, spaces on and off campus, and issues of access and equity in higher education. Critical discussions about student experiences/concerns/challenges at UCLA, addressing specific strategies for success. Letter grading.

178. Sociology of Caribbean. (4) (Same as Sociology M178.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Historical sociology of Caribbean, with emphasis on colonialism and decolonization, development and underdevelopment, race-making institutions and evolution of race relations, nationalism and migration. P/NP or letter grading.

M179A. Topics in African American Literature. (5) (Same as English M191A.) Seminar, three or four hours. Enforced prerequisite: English Composition 3 or 3H. Variable specialized studies course in African American literature. Topics may include Harlem Renaissance, African American folk literature, black women's writing, contemporary African American fiction, African American poetry. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M182A. Language, Literacy, and Human Development Ethnography (2) (Same as Education M182A.) Fieldwork, three hours. Enforced prerequisite: 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 Education M182B.) Fieldwork, three hours. Enforced prerequisite: 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.

M182C. Culture, Communications, and Human Development Ethnography (2) (Same as Education M182C.) Fieldwork, three hours. Enforced prerequisite: 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.

M183A. Language, Literacy, and Human Development Ethnography (4) (Same as Education M183A.) Fieldwork, six hours. Enforced prerequisite: 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 (5) (Same as Education M183B.) Fieldwork, six hours. Enforced prerequisite: 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 prerequisite: 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, such as those taught by visiting 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 concerning 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 foundation of knowledge for thinking through contemporary debates surrounding policies that seek to redress racial discrimination in U.S. P/NP or letter grading.

189. Advanced Honors Seminar. (1-2) 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 seniors. Written honors program approval in advance is required. Offered as independent study supervised by qualified faculty member. Individual contract required. Honors content noted on transcript. Letter grading.

C191. Variable Topics Research Seminars: Afro-American Studies. (2 to 4) Seminar, three hours. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. May be repeated for credit. Concurrently scheduled with course CM135B. S/U or letter grading.

M194A. Language, Literacy, and Human Development Research Group Seminars (5) (Same as Education M194A), Seminar; three hours; laboratory, two hours (when scheduled). Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Offered as upper division course through Center for Community Studies, Reading, discussion, and development of culminating project. May be repeated for credit. Con- curringly scheduled with course C291. Letter grading.

M194B. Culture, Gender, and Human Development Research Group Seminars (5) (Same as Education M194B), Seminar; three hours; laboratory, two hours (when scheduled). Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Offered as upper division course through Center for Community Studies, Reading, discussion, and development of culminating project. May be repeated for credit. Con- curringly scheduled with course C291. Letter grading.

M194C. Culture, Communications, and Human Development Research Group Seminars (5) (Same as Education M194C), Seminar; three hours; laboratory, two hours; discussion, one hour (when scheduled). Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Offered as upper division course through Center for Community Studies, Reading, discussion, and development of culminating project. May be repeated for credit. Con- curringly scheduled with course C291. Letter grading.

195. Community or Corporate Internships in Afro-American Studies. (4) Tutorial, four hours. Preparation: 3.0 grade-point average in major. Limited to junior/senior who have been supervised in a community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. Eight units may be applied toward major requirements. May be repeated for credit. Individual contract required. P/NP or letter grading.

M195CCE. Comparative Approaches to Community and Corporate Internships. (4) Same as American Indian Studies M195CCE, Asian American Studies M195CCE, Chicana and Chicano Studies M195CCE, and Gender Studies M195CCE), Tutorial; one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. In- ternational in corporate, governmental, or nonprofit set- ting coordinated through Center for Community Learning. Comparative study of race, gender, and dig- nity of communities with temporary worker and rai- nacisms. Students complete weekly written assign- ments, attend biweekly meetings with graduate stu- dent coordinator, and write final research paper. Faculty serve as 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.

196. Research Apprenticeship in Afro-American Studies. (4) Tutorial, three hours. Limited to juniors/ seniors. Entry-level research apprenticeship under guidance of faculty mentor affiliated with African Amer- ican Studies major or minor. Short-term research de- sign culminating in term paper in African American studies or related field required. Research may be in part or totally in relation to faculty member’s research. May be repeated for credit. Individual contract re- quired. Letter grading.

197. Individual Studies in Afro-American Studies. (2 to 8) Tutorial, four hours. Preparation: 3.0 grade- point average in major. Limited to juniors/seniors. In- dividual intensive study, with scheduled meetings to be arranged between faculty member and student. Assignments, tests, and other aspects of subject matter reviewed. Eight units may be applied toward major requirements. May be repeated for credit. Individual contract required. P/NP or letter grading.

198. Honors Research 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 the 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 investiga- tion of large project under guidance of faculty mentor. Culminating paper or project required. Eight units may be applied toward major requirements. May be re- peated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

M200A. Advanced Historiography: Afro-American. (4) (Same as History M200VC) Seminar, three hours. May be repeated for credit. S/U or letter grading.

M200C. Black Families and Relationships. (4) (Same as Sociology M198C), Seminar, three hours. Evaluation of social, cultural, and historical forces that affect socialization, stability, and interaction in black intimate relationships, beginning with theoretical frameworks from both black feminism and critical race studies, and concluding with critical examination and analysis of the relationship of the family to the black community. S/U or letter grading.

M200D. African American Women’s History. (4) (Same as History M200DC) Seminar, four hours. Historical and analytical examination of African American women’s history. Focus on relationship between theories of development, culture, and gender. May be taken independently for credit. Letter grading.

M200H. Social Politics of Recent African American Art (4) (Formerly numbered CM212E.) (Same as Art History CM212H) Seminars, four hours. Predominant trend in research in African American music highlights intersection of music with social and political movements, counter-cultural practices, and cultural insti- tutions, economy, and family, within context of experi- ences of black women and black men in contempo- rary U.S. Letter grading.

M202. Critical Theory of African Diaspora. (4) (Same as Anthropology M220C,G) Seminar, four hours. Introduction to variety of ideas that underlie articula- tion of construct of African diaspora. Structured through understanding of African diaspora as histor- ical formation, with focus on cultural construction dis- tinct intellectual project. Examination of ways scholars have conceptualized and theorized diasporic condi- tion of black peoples. Consideration of who belongs to African diaspora community, and how this commu- nity is imagined. S/U or letter grading.


C212A, C212B. African American Music in California. (4) (Formerly numbered CM212C) Lecture, four hours. Historical and analytical examination of African American music in California, including history, migra- tion patterns, and urbanism to determine their impact on development of African American music in Cali- fornia. Concurrently scheduled with course CM112A. S/U or letter grading.

M221. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Agency. (4) (Same as Education CM229B) Lecture, four hours. Discussion, one hour; fieldwork, four units. Interdisciplinary approach explores the intersection of policies and practices, art and activism, and other forms of agency engaging school-to-prison pipeline. Concur- rently scheduled with course CM113A. S/U or letter grading.

M235A, African American Art before 1900. (4) (Formerly numbered CM212D.) (Same as Art History 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 CM135A. S/U or letter grading.

M235B, African American Art, 1900 to 1963. (4) (Formerly numbered CM212E.) (Same as Art History CM235B) Lecture, three hours. Detailed inquiry into work of African American artists from 1900 to 1963 in the context of social, political, and cultural engagement, as well as in codification of modern black life in U.S. Concur- rently scheduled with course CM135B. S/U or letter grading.

M240. Assessment and Treatment of African American Families. (3) (Same as Psychiatry M240D) Seminar, two hours. Designed for graduate students. Course aids mental health professionals and trainees in evaluation and treatment of African American fami- lies in terms of their cultural milieu, historical back-
African Studies

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 with African interest and experience in many disciplines, students have multiple options to design individualized programs suited to their specific interests.

Information on the undergraduate major and minor in African and Middle Eastern Studies and the minor in African Studies can be found in the 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.

African Studies

Graduate Courses


201B. Africa and Professions. (4) Seminar, three hours. Exploration of key contributions and debates of academic disciplines in African studies, with emphasis on professional dimension. Review of discipline's literature, resources, career opportunities, and professionalism themselves. Letter grading.

296. Africanist Working Group. (1) Research group meeting, one hour. Collaborative exploration and discussion of current research and literature on modern Africa. Specific projects determined by research being conducted by working group participants. Activities include designing and refining research proposals, gathering and analyzing data, and interpreting and reporting results, as well as presenting research to receive critical feedback from other class participants. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, three 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.

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.
Undergraduate Study

The American Indian Studies major is a designated capstone major. Seniors complete a research/service experience and participate in a tutorial where faculty members help them relate their course-derived academic experience to their original research/service efforts involving Native American communities. Through their capstone work, students demonstrate their skills at analyzing and synthesizing knowledge, show their capacity to work collaboratively with peers, and display their capacity to relate their academic research and discourse to Native American community needs and concerns. Students present their work at the academic year-end Research Symposium sponsored by the American Indian Studies Interdepartmental Program.

American Indian Studies BA

Capstone Major

The American Indian Studies BA program is designed to offer a coherent and comprehensive curriculum in American Indian cultures, societies, and contemporary issues in addition to valuable background in more traditional disciplines such as anthropology, art history, economics, education, history, law, linguistics, literature, sociology, and world arts and cultures. Students acquire a critical knowledge of the concepts, theories, and methods that have produced knowledge about American Indians in the traditional disciplines. Students are encouraged to develop a concentration— or special expertise— in these fields to accompany the major.

The curriculum encompasses the cultural, historical, political, and social experiences of Native Americans in the Americas. Through courses on Native American literature, languages, theater, and contemporary societies and through more culturally specific courses on California Indians, cultures of the Pueblo southwest, and so on, the major offers an in-depth and broad knowledge on the experience of Native Americans not only in the U.S. and Canada but in Mexico and elsewhere in Latin America as well.

Given the increasingly multicultural society of the U.S. and the economic revitalization of many Native American communities, a knowledge of American Indian studies greatly enhances the professional and scholarly contributions attainable for those seeking postgraduate degrees in various related disciplines and fields.

Learning Outcomes

The American Indian Studies major has the following learning outcomes:

- Demonstrated analysis and knowledge-synthesis skills gained through completion of written capstone thesis
- Identification of a key idea or theme of interest drawn from coursework
- Effective public presentation of selected theme in final paper and/or project
- Relation of academic research and discourse to Native American communities’ needs and concerns
- Communication of statistical and quantitative information to appropriate communities
- Display capacity to work 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 distributional formula that encourages further specialization within either of these two broad areas while simultaneously adding additional breadth.

Finally, American Indian Studies C122SL prioritizes the experiential dimension of involvement in Native American communities (either urban, reservation, or rancheria) through work that supplies service experience and/or supervised internship opportunities.

The 12 courses must fit one of the following regional 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 indigenous people in Central America and/or South America.

Students must complete 12 upper-division courses (48 units) as follows, with no more than 32 units from American Indian studies courses:

1. Ten core courses (40 units), including (a) American Indian Studies M161, (b) two language courses from Anthropology M150, 155, Linguistics 114, (c) two history or law courses from American Indian Studies M140, 158, C170, History 149A, 149B, 157B, (d) one social sciences! course from American Indian Studies C120, C121, C130, C175, C178, Anthropology 160A, or 162, (e) two expressive culture courses from American Indian Studies 180, Art History 137, CM139A, C139B, English 106, Ethnomusicology 106A, 106B, Theater 103F, 107, (f) one methodology course from Anthropology 138B, Art History 100, Community Health Sciences 181, Comparative Literature 100, Ethnomusicology 180, Linguistics 160, Political Science 170A, Sociology 106A, 113, or World Arts and Cultures 195, and (g) either one ethnic/race/gender relations course (African American Studies M164, Anthropology M145Q, 145S, Asian American Studies 130A, M130B, M130C, 131A, 132A, 133, 134, Chicana and Chicano Studies CM182, Film and Television 128, Gender Studies 130, 168, Sociology 154, 156, or M162) or one comparative indigenous studies course (Anthropology 143, Geography M131, History 135A, or Sociology 157)

2. American Indian Studies C122SL (experiential service learning or supervised internship)

3. American Indian Studies 199C (capstone course)

Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. No more than two independent studies courses (199a) may be applied toward the degree.

Honors Program

The honors program is designed for American Indian Studies majors who are interested in carrying out an independent research project that culminates in an interdepartmental 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 American Indian Studies majors who have a cumulative grade-point average of 3.0 or better and at least a cumulative GPA of 3.5 in coursework in the major are eligible to apply. Consult the student affairs officer for more information.

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 the major course requirements and an overall GPA of 3.0 or better, and (3) complete American Indian Studies 198A-198B, taken with a professor who agrees to mentor and guide them through the stages of senior essay design and development during their senior year. Completion of a senior thesis is required.

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, his- 
tory, 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, in- 
cluding 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 communi- 
cation systems course (Anthropology 155 or 
Linguistics 114); (2) three history and social 
sciences courses from American Indian Studies 
C120, C121, C122SL, C130, 140, 158, C170, 
C175, C178, Anthropology 1130, 113R, 114P, 
114Q, 158, Gender Studies 130, History 149A, 
149B, 157B, Sociology M161; (3) three human- 
istic perspectives on language and expressive 
culture courses from American Indian Studies 
180, Art History 137, CM139A, English 106, 
180, Ethnomusicology 106A, 106B, Theater 
103F.

A minimum of 20 units applied toward the 
minor requirements must be in addition to 
units applied toward major requirements or 
another minor, and at least 16 units applied toward 
the minor must be taken in residence at UCLA. 
Transfer credit for any of the above is subject 
to program approval; consult with the interde- 
partmental 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. Suc- 
cessful completion of the minor is indicated 
on the transcript and diploma.

Graduate Study

Official, specific degree requirements are de- 
tailed in program requirements for UCLA 
graduate degrees, available at the Graduate 
Division website. In many cases, more detailed 
guidelines may be outlined in announcements, 
other publications, and websites of the schools, 
departments, and programs.

Graduate Degrees

The American Indian Studies Program offers 
the Master of Arts (MA) degree in American 
Indian Studies. A concurrent degree program 
(American Indian Studies MA/Law JD) is also 
offered.

American Indian Studies

Lower-Division Courses

M10. Introduction to American Indian Studies. (5) 
(Same as World Arts and Cultures M23.) Lecture, 
three hours; discussion, one hour; activity, one hour. 
Survey of selected Native North American cultures 
from pre-Western contact to contemporary period, 
with particular emphasis on early cultural diversity 
and diverse patterns of political, linguistic, social, 
legal, and cultural change in postcontact period. 
P/NP or letter grading.

M18. Leadership and Student-Initiated Retention. 
(2) (Same as African American Studies M18, 
Asian American Studies M18, and Chicana and 
Chicano Studies M18.) Seminar, two hours. Limited 
to freshmen/sophomores/first-year transfer students. 
Not open for credit to students with credit for course 
M118. Exploration of issues in retention at UCLA 
through a lens of student-run programs. 
Grading, activities, and services. Focus on 
student-run programs and self-directed social change and 
political, cultural, legal, and economic processes of 
native American communities and organized social 
programs. Concurrently scheduled with course 
C222SL. Letter grading.

C130. California Indian Strategies for Contempo- 
rary Challenges. (4) Seminar, three hours. Through 
reading, discussion, and Native guest lecturers, 
troduction to contemporary issues and processes of 
self-directed social change and political, cultural, 
and economic processes of native American 
nation building in contemporary California. 
Grading, activities, and services. Focus on 
student-run programs and self-directed social change and 
political, cultural, legal, and economic processes of 
native American communities and organized social 
programs. Concurrently scheduled with course 
C230. Letter grading.

140. Federal Indian Law and Policy. (4) Lecture, 
four hours. Through readings, discussion, and Native 
guest lecturers, introduction to fundamental 
concepts and history of federal Indian law and policy. 
Investiga- 
tion of contemporary policies and legal issues and 
exploration of Native responses to policy and law. 
Letter grading.

Seminar, three hours. Introduction to topics on contempo- 
rary indigenous nations, including social movements, 
social and cultural change and continuity, nation 
building, law and justice reform, economic develop- 
ment, education and socialization, international rela-
tions, comparative policy, colonialism, migration, 
national and social identities, and other issues and so- 
cial processes. Concurrently scheduled with course 
C245. Letter grading.

158. Nation Building. (4) Lecture, three hours; field- 
work/research, nine hours. Limited to junior/senior 
American Indian Studies majors. Examination of his- 
torical interplay of federal policies with tribal cultures 
that has shaped political, cultural, social, and economic 
processes of American Indian nations. Focus on 
student-run programs and self-directed social change 
and political, cultural, and economic processes of 
native American communities and organized social 
programs. Concurrently scheduled with course 
C245. Letter grading.

M161. Comparative American Indian Societies. (4) 
(Same as Sociology M161.) Lecture, three hours. 
Requisite: course M10 or Sociology 1. Comparative 
and historical study of political, economic, and cul- 
tural change in indigenous North American societies. 
Several theories of social change, applied to selected 
case studies. Letter grading.

C162. Language Endangerment and Linguistic 
Revitalization. (4) (Same as Anthropology M156.) 
Lecture, three hours; discussion, one hour. Requisites: 
course M10, Anthropology 4, and Sociology 1. Examina- 
tion of causes and consequences of current worldwide loss of lin-
guistic diversity and revelation of kinds of efforts that 
members of threatened heritage language communi- 
ties have produced in their attempt to revitalize these 
languages. Projected loss of as many as half of 
world’s languages by end of 21st century can only be 
explained as outcome of such factors as nationalism, 
global economic forces, language ideological change, and 
linguistic shift away from indigenous and 
bi-
health problems that have affected American Indian people and the definition of contemporary health issues and measures taken to raise health status of American Indian people. Concurrently scheduled with course C268. Letter grading.

C170. Cultural Diversity. (4) Lecture, four hours. Introduction to overview of California Indian history, specific tribal community histories, and/or contemporary California Indian history through readings, discussions, and Native guest lecturers. May be repeated for credit with topic and consent of instructor change and consent of interdepartment chair. Concurrently scheduled with course C270. Letter grading.

C175. Cultures of Native Southern California. (4) Lecture, three hours. Introduction to Southern California indigenous societies through readings, discussions, guest lectures, and direct community participation. May be repeated for credit with topic and/or instructor change and consent of interdepartmental chair. Concurrently scheduled with course C270. Letter grading.

C178. 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), American Indian Religious Freedom Act, National Environmental Policy Act (NEPA), and National Historic Preservation Act (NHPA), from applied standpoint. Examination of changes and challenges of these laws, examination of series of cases from California sites. Concurrently scheduled with course C275. Letter grading.

180. Introduction to and Practicum in Native American Languages. (4) Lecture, three hours; laboratory, one hour. Development of ability to converse, read, and write at elementary level in Native American languages. (Both phonological and grammatical structures, vocabulary, and cultural patterns of using language as symbolic guide to culture. May be repeated with language change and approval of interdepartmental chair. Letter grading.

M186. Indigenous Film. (5) Same as World Arts and Cultures M187.) Lecture, four hours; discussion, one hour. Introduction to study of indigenous filmic images and representations, with focus on selected ethnographic, documentary, and fiction films ranging from 1920 to present. P/NP or letter grading.

187. Special Topics in American Indian Studies. (4) Lecture, four hours. Variable topics selected from following: Myth and Folklore of Indian Societies; Contemporary American Indian Literature; Social Science Perspectives of American Indian Life; Law and American Indian; History of American Indians (cultural area); Dance and Music; Native American Indian Studies. S/U or letter grading. Consult Schedule of Classes for topics and instructors. May be repeated twice for credit. 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 also be taken 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 four credits. Honors contracts required. Honors content noted on transcript. Letter grading.

195. Community Internships in American Indian Studies. (4) Tutorial, two hours; fieldwork, eight hours. Required activities: Limited to Honors students. Internship in supervised setting in community agency. Students meet on regular basis with instructor and provide periodic reports on their experience. Designed to integrate theory and practice through experiential learning to gain firsthand knowledge of diversity, complexity, and variety of needs of American Indian communities. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

M195CE. Introductory Approaches to Community and Corporate Internships. (4) Same as African American Studies M195CE, Asian American Studies M195CE, Chicana and Chicano Studies M195CE, and Gender and Women's Studies M195CE.) Tutorial, one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting. Selection of internship and subject matter required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

198A-198B-198C. Honors Research in American Indian Studies. (4-4-4) Tutorial, one hour; activity, three hours. Course 198A is a prerequisite to 198B, which is a prerequisite to 198C. Limited to senior honors program students. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Each course may be repeated for credit. Individual contract required. Letter grading.

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. Culumations paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199C. Individual Studies: Capstone Seminar. (4) Tutorial, three hours. Preparation and completion of eight upper-division major courses. Limited to senior American Indian Studies majors. Faculty members help students relate their course-derived academic experience to academic/vocational/ethnic/ethnic/ethnic/ethnic career development. Native American communities. Completion of research paper and presentation of student work at year-end Research Symposium required. Must be taken in conjunction with American Indian Studies C122SL or an alternative upper-division course approved by program chair and academic coordinator. Individual contract required. Letter grading.

Graduate Courses

M200A, Advanced Historiography: American Indian People. (4) Same as History M200W.) Lecture, 90 minutes; seminar, 90 minutes. Introduction to cultural histories of North American Indians and review of Indian concepts of time, historical faculty. Approaches to content and methodologies related to Indian past that is interdisciplinary and multicu lural in its scope. Letter grading.

M200B, Cultural World Views of Native America. (4) Same as English M206.) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms—dance, art, song, religion, and performance. 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, interdisciplinary methodology, and approaches taken from literary analysis, structural anthropology, folklore, linguistics, and ethnomusicology. May be repeated for credit with instructor and/or topic change. Letter grading.

M200C. Contemporary Issues of American Indians. (4) Same as Anthropology M244P and Sociology M275.) Seminar, three hours. Introduction to most important issues facing American Indians as individuals, communities, tribes, and organizations in contemporary world; build Native American back-ground 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 principles and application to issues of economic development in indigenous communities. Coverage of microeconomics and macroeconomics of economic development using contemporary research. Letter grading.

201. Topics in American Indian Studies. (4) Discussion, three hours. S/U or 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 key methodological 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 (surveys, design, appropriate use), with emphasis on qualitative research methods, ethics, and special considerations in conducting research in American Indian country. Development of research ideas and exploration of feasibility of researching topics. Letter grading.

C220. Working in Tribal Communities: Introduction. (4) Lecture, four hours. Through readings, discussions, 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 respect for Native American culture, perspectives of American Indian life, and a recognition of the need for knowledge and skills necessary to successfully work or carry out community service projects for Native American communities. Concurrently scheduled with course C221. Letter grading.

C222SL. Working in Tribal Communities: Service Learning. (4) Seminar, one hour; fieldwork, four hours. Enforced prerequisite: course C221. Recommended: course C220. Participation in community service learning requiring students to undertake fieldwork in Native American communities and organizations. Concurrently scheduled with courses C221 and C221SL. Letter grading.

C228A-228B. Tribal Legal Systems. (228A: 3 or 4/228B: 1 or 2) Seminar, two hours. Course 228A is an enforced prerequisite to 228B. Study of traditional and contemporary legal systems of Native American tribal nations. Focus on legal and political influences of legal systems, including Navajo, Cherokee, Iroquois, and Hopi, with emphasis on diversity of tribal legal regimes, comparisons with Anglo-American legal systems, changes in tribal legal institutions, and the impact of contact with non-Native Indians, and the relationship between tribes’ legal systems and other aspects of their cultures, such as religion and social structure. Independent research paper with the instructor on a contemporary or historic topic required. Concurrently scheduled with Law 528. In Progress (228A) and S/U or letter (228B) grading.

C230. California Indian Strategies for Contempory Challenges. (4) Seminar, three hours. Through readings, discussion, and Native guest lecturers, introduction to contemporary issues and processes of self-directed social change and political, cultural, legal, and economic processes of Native building in
Contemporary California Native communities. Concurrently scheduled with course C130. S/U or letter grading.

238A-238B. Tribal Legal Development Clinic. (238A: 3 or 4/238B: 1 or 2) Lecture, three hours. Course 238A is enforced requisite to 238B. Students provide legal assistance to Indian nations. Projects include development and modification of tribal legal codes and constitutional provisions, creation of tribal dispute resolution processes, and drafting of intergovernmental agreements. Legislative drafting and cross-cultural representation skills emphasized. Faculty members meet with tribal leaders to inform them of availability of clinic services and determine whether clinic could assist them with their legal development needs. Once students are assigned to particular projects, they meet with relevant tribal officials and community groups with travel funds supplied. Students learn about tribal governments and legal systems, including federal constraints on activities of tribal legal institutions, and cultures of tribe they are representing to be able to craft legislation and other documents that meet tribal intentions and needs. Concurrently scheduled with Law 278. In Progress (238A) and S/U or letter (238B) grading.

C245. Contemporary Indigenous Nations. (4) Seminar, three to four hours. Overview of topics on contemporary indigenous nations, including social movements, social and cultural change and continuity, nation building, law and justice relations, economic development, and federal and state legislation singling out Indian nations and tribes. Basic legal definitions within federal Indian law and state legislation singling out Indian nations and tribes are presented. Concurrently scheduled with course C145. S/U or letter grading.

261. Comparative Indigenous Societies. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Investigation of detailed historical and contemporary ethnographic analyses of social change and cultural continuity within indigenous nations. Emphasis on tribal organization, social structure, and political relationships. S/U or letter grading.

265. Federal Indian Law I. (4 or 6) Lecture, four hours. Introduction to overview of California Indian legal systems, including federal constraints on activities of tribal legal institutions, and cultures of tribe they are representing to be able to craft legislation and other documents that meet tribal intentions and needs. Concurrently scheduled with course C145. S/U or letter grading.

M265A-265B. Federal Indian Law I. (1 to 8) (Same as Law M382B) Lecture, three hours. Requirements: 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.

M267A-267B. Federal Indian Law II. (1 to 8) (Same as Law M382B) Lecture, three hours. Requirements: courses 238A and 238B, or M265A and 265B. Concurrently scheduled with course C145. S/U or letter grading. Overview of the nature and history of tribal federal legal and political relationship; basic legal definitions within federal Indian law (such as what is Indian country); equal protection of federal Indian legislation; canons of construction unique to Indian law; tribal sovereignty and its protection; basic questions of federal and state authority within Indian country; and tribal, federal, and state jurisdiction in Indian country according to default rules as well as special statutory regimes. May be concurrently scheduled with Law 267. S/U or letter grading.

C270. California Indian History. (4) Lecture, four hours. Introduction to overview of California Indian history, specific tribal community histories, and contemporary California Indian history through readings, discussion, and paper assignments. May be repeated for credit with topic change and consent of interdepartmental chair. S/U or letter grading.

C272. Seminar: Cultural Property Law. (3 or 4) (Same as Law M514) Seminar, three hours. Examination of identity, ownership, appropriation, and repatriation of both tangible and intangible cultural property by protected under existing intellectual property and cultural property regimes? 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 indigenous peoples, including folklore, traditional knowledge, burial grounds, sacred sites, and ancient cultural sites. 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, economic, and social development, constitutional reform, membership criteria, cultural property protection, sacred sites, religious freedom, and safety and criminal law enforcement, among others. 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 as intellectual property and cultural property regimes? 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 cultural sites. May be concurrently scheduled with Law 267. S/U or letter grading.

C275. Cultures of Native Southern California. (4) Lecture, free to Southern California indigenous societies through readings, discussion, guest lecturers, and direct community participa-

C280. Human Rights for American Indians. (4) Lecture, two hours; discussion, one hour. Identification of traditional health beliefs, health practices, and health-care systems of American Indian tribes to understand role of U.S. government in healthcare services for Indian people. Survey of Federal Indian Health programs and development of Indian Healthcare System and Tribal Urban Indian Health programs to understand health problems that have affected American Indian people and definition of contemporary health issues and measures taken to raise health status of American Indian people. Concurrently scheduled with course C145. S/U or letter grading.

C285. California Indigenous Law. (4) Seminar, three hours. Consideration of California Indian legal systems, including federal constraints on activities of tribal legal institutions, and cultures of tribe they are representing to be able to craft legislation and other documents that meet tribal intentions and needs. Concurrently scheduled with course C145. S/U or letter grading.

M514. Cultural Property Law. (3 or 4) Seminar, three hours. Examination of identity, ownership, appropriation, and repatriation of both tangible and intangible cultural property by protected under existing intellectual property and cultural property regimes? How can the cultural property be defined? Can cultural property be protected as intellectual property and cultural property regimes? 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 cultural sites. May be concurrently scheduled with Law 267. S/U or letter grading.

C276. Health and Human Rights in California. (4) Lecture, discussion, one hour. Examination of legal issues integral to governance that Native American nations face in 21st century, including those that impact and shape political, economic, and social development, constitutional reform, membership criteria, cultural property protection, sacred sites, religious freedom, and safety and criminal law enforcement, among others. Examination of both international and domestic law governing these issues, addressing such questions as How should cultural property be defined? 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 cultural sites. May be concurrently scheduled with Law 267. S/U or letter grading.

C277. Native Governance: Law and Policy. (3 or 4) Lecture, three hours. Examination of legal issues integral to governance that Native American nations face in 21st century, including those that impact and shape political, economic, and social development, constitutional reform, membership criteria, cultural property protection, sacred sites, religious freedom, and safety and criminal law enforcement, among others. Examination of both international and domestic law governing these issues, addressing such questions as How should cultural property be defined? 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 cultural sites. May be concurrently scheduled with Law 267. S/U or letter grading.

C278. California Experiences in Native Cultural Resource Management. (4) Seminar, three hours. Overview of creation and implementation of laws that affect cultural resource management in California, such as California Environmental Quality Act (CEQA), Native American Graves Protection and Repatriation Act (NAGPRA), AB 978 (California NAGPRA), American Indian Religious Freedom Act, National Environmental Policy Act (NEPA), and National Historic Preservation Act (NHPA), from applied standpoint. To understand goals and challenges of these laws, examination of series of cases from California sites. Concurrently scheduled with course C278. S/U or letter grading.

375. Teaching Apprentices Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship 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.


**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 310-267-8653

Aman Mahajan, MD, PhD (Ronald L. Katz, MD Endowed Professor of Anesthesiology), Chair
Barbara M. Van de Wiele, MD, Executive Vice Chair
Randolph H. Steadman, MD, MS, Vice Chair, Education
Ybin Wang, PhD, Vice Chair, Research
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 the 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 they can practice their clinical skills. Students are also expected to attend clinically oriented lectures on a wide range of anesthesia topics, including physiology, pharmacology, and critical care.

For more details on the Department of Anesthesiology and Perioperative Medicine and a list of the courses offered, see the department website.

Anesthesiology

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 paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course

199. Directed Research in Anesthesiology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

ANTHROPOLOGY

College of Letters and Science

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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

Professors

H. Samy Alim, PhD (David O. Sears Presidential Endowed of Social Sciences)
Andrew Apt, PhD
H. Clark Barrett, PhD
Philippe I. Bourgois, PhD, in Residence
P. Jeffrey Brantingham, PhD
Alessandro Duranti, PhD
Daniel M.T. Fessler, PhD
Alan Page Foxe, PhD
Linda C. Garro, PhD
Akhil Gupta, PhD
Laurie K. Hart, PhD
Douglas W. Holford, PhD
Christopher M. Kelty, PhD
Paul V. Koskrelly, PhD
Richard G. Lesure, PhD (Marlin 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. Slynovics, PhD

Monica L. Smith, PhD (Navin and Pratima Doshi Professor of Indian Studies)
James W. Stigler, PhD
Marko Tamanio, PhD
Russell Thornton, PhD
C. Jason Throop, PhD
Yuxiang 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
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Michael Moerman, PhD
Philip L. Newman, PhD
Elina Ochs, PhD
Sherry B. Ortner, PhD
Wendell H. Osvald, PhD
Merrick Posansky, PhD
Dwight W. Read, PhD
James R. Sackett, PhD
Joan B. Silk, PhD
Charles S. Stanish, PhD
Thomas S. Weiss, PhD
Johannes Wilbert, PhD

Associate Professors

Aomar Boum, PhD
Jessica R. Cattelino, PhD
Erin K. Debenport, PhD
Min Li, PhD
Jessica W. Lynch Alfaro, PhD
Keyyoung Park, PhD
Jemima Pierre, PhD
Brooke A. Scelza, PhD
Gregson T. Schachner, PhD
Shannon E. Speed, PhD

Assistant Professors

Stephen B. Acabado, PhD
Sahil Can Aciksoz, PhD
Hannah C. Appel, PhD
Erica A. Cartmill, PhD
Molly M. Fox, PhD
Brian M. Wood, PhD

Adjunct Professor

Robert B. Lemelson, PhD

Adjunct Associate Professors

Tamar Kerner-Sadlik, PhD
Tritta Toyota, PhD

Adjunct Assistant Professor

Thomas A. Wake, PhD

Scope and Objectives

Anthropology, the broadest of the social sciences, is the study of humankind. One of the strengths of anthropology as a discipline is its holistic or integrative approach; it links the life sciences and the humanities and has strong ties with disciplines ranging from biology and psychology to linguistics, political science, and the fine arts. Anthropological study is appropriate for people with a wide variety of interests: human cultures and civilizations both present and past, human and animal behavior, particular regions of the world such as Africa, Asia, Latin America, Oceania, etc.

The Department of Anthropology recognizes the following four fields in anthropology:

Archaeology is the study of human cultures and the natural, social, ideological, economic, and political environments in which they operated in the recent and distant past. The graduate and undergraduate programs focus on methods of discovery (field and laboratory courses), strategies of analysis pertaining to long-term cultural evolution (theory, 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 manifold ways in which language, interaction, and culture mutually organize each other in different communities worldwide. Linguistic anthropologists at UCLA have a variety of backgrounds and research interests that include face-to-face communication, language contact and change, language and politics, language socialization across the lifespan, verbal art and performance, and the relation of language to ideology, mind, emotion, and identity. Courses are offered in ethnographic approaches to discourse analysis, field methods, language ideology, conversation analysis, language socialization, and communication in urban communities, as well as on cross-cultural language practices.

Sociocultural anthropology concerns the examination and understanding of social and cultural systems and processes, and the human capacities that enable them. Its goal is to understand their operation in specific settings and to understand the experience of individuals who live in these diverse systems. Faculty members have engaged in fieldwork in almost every area of the world, but most notably in Africa, Latin America, East and Southeast Asia, and Oceania. They have also engaged in ethnographic research among Americans with diverse ethnic identities and in various institutional settings.

Bridging the four primary subfields are several other dimensions of anthropological study, including psychocultural anthropology and medical anthropology. Courses are also offered in
the history and theory of anthropology and a wide range of anthropological methods. The department offers Bachelor of Arts and Bachelor of Science degrees and a minor in Anthropology for undergraduate students; the graduate program leads to the Master of Arts and PhD degrees. Studies in anthropology are particularly valuable for students planning careers in which an understanding of human behavior and cultural diversity is desirable, such as business, education, law, medicine, nursing, public health, social welfare, and urban planning. Because of its breadth of outlook, anthropology also offers an ideal basis for those seeking a general education in our increasingly interdependent world.

Undergraduate Study
Anthropology BA

Learning Outcomes
The Anthropology major has the following learning outcomes:

• Broad knowledge of archaeological, biological, sociocultural, and linguistic anthropology
• Familiarity with the history, methods, and current theoretical debates in the field
• General knowledge of, and developed skills working with, empirical and anthropological evidence
• Proficiency in library research, data interpretation, synthesis, and writing
• Proficiency formulating and answering relevant questions through critical reasoning, making use of current primary scientific literature, identification of appropriate sources, reading and understanding of papers, and discriminating research quality

Preparation for the Major

Required: Anthropology 1, 2, 3, 4. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Transfer Students
Transfer applicants to the Anthropology BA major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one human evolution course, one archaeology course, one sociocultural anthropology course, and one culture and communication course. 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 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, 14BL, and 14C, or 20A, 20B, 20L, 30A, and 30AL: Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 12, or Mathematics 31A, 31B, and Statistics 12; Physics 5A, 5B, and 5C.

Students must also complete one of two life sciences sequences—either Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Transfer Students
Transfer applicants to the Anthropology BS major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one human evolution course, one archaeology course, one sociocultural anthropology course, one culture and communication course, two general biology courses for majors, one year of calculus, one year of general chemistry with laboratory, one year of general physics with laboratory, and one lower-division organic chemistry course.

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

The Major

The major supplies an overview of human evolution and is designed to prepare students for careers in anthropology and the health sciences, including medicine, dentistry, public health, and nursing. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. Students must complete nine courses as follows: (1) two upper-division courses in the sociocultural anthropology field and one in each of the other three fields (archaeology, biological anthropology, and linguistic anthropology), (2) one upper-division regional cultures course, (3) one upper-division history/theory course selected from 100, 110, 111, 120, 124Q, 130, 131, 136A, 140, M150, (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 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 courses above; four additional courses. Students are encouraged to concentrate their upper-division coursework within one field and are required to consult with the undergraduate adviser in planning their program of study.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Anthropology offers Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Anthropology.

Anthropology

Lower-Division Courses

**1. Human Evolution.** (Formerly numbered 7.) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor’s degrees. Evolutionary processes and evolutionary past of human species. P/NP or letter grading.

**2. Archaeology: Introduction.** (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 anthropological archaeology, including case-study guest lectures presented by several campus archaeologists. P/NP or letter grading.

**3. Culture and Society.** (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.** (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 topical unfolding of communicative activities. Topics include language in everyday life and ritual events, socialization, literacy, multilingualism,masculinity and femininity, law, art, science, and art-making as cultural activity. P/NP or letter grading.

**19. Flat Lux Freshman Seminars.** (1 Seminar, one hour.) Discussion, two hours; 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.) Final-year upper-division honours contract required. 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 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 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

**Archaeology**

**100. History of Anthropology.** (4 Formerly numbered 182.) Lecture, three hours. Brief survey of development of Western science, particularly anthropological/cultural theory, and methodology. P/NP or letter grading.

**110. Principles of Archaeology.** (4 Formerly numbered 110P.) Lecture, three hours; discussion, one hour (when scheduled). Required course 2. Intended for students interested in conceptual structure of scientific archaeology. Anthropological method and theory with emphasis on what archaeologists do and how and why they do it. Consideration of field strategies, formation processes, chronological frameworks, and other crucial principles of archaeological analysis and interpretation. P/NP or letter grading.

**CM110Q. Introduction to Archaeological Sciences.** (4) Same as Ancient Near East CM169Q.) 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 employed them in their scholarly publications or theoretical models. Systematic instruction in digital data management and mining, scientific analysis of materials (including geological, geophysical, and chemical techniques), and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM210Q. P/NP or letter grading.

**111. Theory in Anthropological Archaeology.** (4) Lecture, three hours. Required: course 2. Method and theory with emphasis on archaeology within context of anthropological theory. Themes include theoretical development of major cultural traditions of the world, with special emphasis on prehistoric and historic components.

**112. Selected Topics in Historical Archaeology.** (4) Lecture, three hours. Special topics in historical archaeology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

**112A. Archaeology of Chiefdoms.** (4) (Formerly numbered 114L.) Lecture, three hours. Requirements: course 2. Examination of chiefdom societies in anthropological record, with readings focused on theory and data from archaeological, historical, and ethnographic literature. Illustrative examples include non-state societies created remarkably rich cultures over entire globe beginning several millennia ago in both Old World and Americas. P/NP or letter grading.

**112B. Cities Past and Present.** (4) (Formerly numbered 119F.) Lecture, three hours. Required: course 2 or 3. Examination of ancient and modern cities to evaluate urban form developed and continues to thrive as human social phenomenon. Contemporary observations compared with anthropological case studies, including South America, Asia, Africa, and ancient Near East. P/NP or letter grading.

**112S. Politics of Past.** (4) (Formerly numbered 114K.) Lecture, three hours. Required: course 2. Examination of social and cultural context of modern archaeology. Topics include legal frameworks governing archaeological practice, relationships between archaeologists and descendant peoples, and role of archaeology in current politics. P/NP or letter grading.

**113. Archaeology of North America.** (4) Lecture, three hours. Prehistory of North American Indians; evolution of Indian societies from earliest times to (and including) contemporary Indians; approaches and methods of American archaeology. P/NP or letter grading.

**113Q. California Archaeology.** (4) Lecture, three hours. Examination of prehistory of American Southwest from 11,000 years ago to historic times. Emphasis on description and interpretation of cultural variation and change, employing evolutionary perspective. Special attention to advent of farming and settled towns, large-scale interactive networks, abandonment of Four Corners area, and historic cultures. P/NP or letter grading.

**114P. Ancient Civilizations of Mesoamerica.** (4) Lecture, three hours. Archaeology of pre-Hispanic native cultures of Mesoamerica from late Preclassic through Spanish conquest, with emphasis on formative and subsequent political development, classic period civilizations, and Aztec society as revealed by archaeology and early Spanish writing. Inca and their predecessors in Peru, with emphasis on sociopolitical systems, economic patterns, religion, and aesthetic and intellectual achievements. P/NP or letter grading.

**115. Archaeology of Egypt and Sudan.** (4) (Formerly numbered M119E.) Lecture, three hours. Examination of prehistoric and early Egyptian and African archaeology. Emphasis on formative and subsequent political development, classic period civilizations, and role of archaeology in current politics. P/NP or letter grading.

**M115. Archaeology of Egypt and Sudan.** (4) (Formerly numbered M119E.) Lecture, two hours; laboratory, three hours. Ancient Egypt is well known for numerous well-known sites such as Giza Pyramids and Tomb of Tutankhamun. From these and thousands of less well-known sites, enormous variety of archaeological information may be drawn. Themes include particular archaeological themes, regions, or sites, examination of methods of prehistoric and historic archaeology and how archaeological information contributes
to understanding of social, political, and religious history. Background provided for development of group research projects—finding resources, data gathering, analysis, interpretation, presentation, and training on how to embark on research in this field. Computer laboratory components focused in which student research is performed and presented in time map. P/NP or letter grading.

116P. Archaeology of South Asia. (4) (Formerly numbered 116G.) Lecture, three hours. Archaeology of Harappan, early historic, and medieval periods in Indian subcontinent. Investigation of large-scale social movements such as Buddhism, as well as consideration of how past is interpreted in present. P/NP or letter grading.

116Q. Evolution of Language. (4) Lecture, three hours. Recommended preparation: course 1 or 4 or Linguistics 1. Designed for juniors and seniors. How did human capacity for language evolve? Examination of origin of human language from biological, comparative, developmental, social and computational perspectives. Topics include evolutionary theory, linguistic structure and gesture, animal communication, language learning, language disorders, and computational models of language emergence. P/NP or letter grading.

124Q. Evolutionary Psychology. (4) Formerly numbered 124B.) Lecture, three hours; discussion, one hour (when scheduled). Emphasis on current empirical studies of modern human behavior from a evolutionary perspective, including social organization, sexual orientation, division of labor, parenting strategies, conflict, and cooperation. P/NP or letter grading.

126P. Paleopathology. (4) (Formerly numbered 126.) Lecture, three hours; discussion, one hour (when scheduled). Emphasis on theories and evidence for differences between men and women, patterns of growth, maturity, fertility, mortality, parenting, and relations with members of opposite sex. P/NP or letter grading.

129. Selected Topics in Biological Anthropology. (4) (Formerly numbered 129.) Lecture, three hours. Recommended requisite: course 1 or Life Sciences 1 or 7B. Survey of research 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.

M116R. Archaeological Landscapes of China. (4) (Formerly numbered 116RS.) Same as Chinese M115R. Lecture, three hours; discussion, one hour (when scheduled). Declassified space images from Cold War era and open remote sensing data of 21st century provide excellent tools for studying landscape transformation in historical China. Combining lectures, library research, and hands-on analysis of archaeological sites on satellite images, investigation of changing landscapes and archaeological landscape in China during last 5,000 years. Social processes at various scales, from emergence of early cities to rise of metropolitan centers and formation of imperial landscapes. P/NP or letter grading.

116S. Selected Topics in Archaeology of Southeast Asia. (4) (Formerly numbered 116SN.) Lecture, three hours. Study of selected topics in archaeology and prehistory of Southeast Asia from Paleolithic to European colonization, including population movements, emergence of agriculture, and development of state level societies. May be repeated for credit with topic change. P/NP or letter grading.

C117. Selected Laboratory Topics in Archaeology. (4) Lecture, one hour; laboratory, two hours. Specialized analysis of particular classes of cultural remains. Topic may be one of following: zooarchaeology, paleoethnobotany, lithic, ceramics, rock art, laboratory experience with collections and data. May be repeated for credit with topic change. Concurrently scheduled with course CM217. P/NP or letter grading.

117P. Selected Laboratory Topics in Archaeology. (4) Lecture, three hours. Requisite: course 8. How archaeological research is furthered by specialization of 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.


128P. Primate Behavior Nonhuman to Human. (4) (Formerly numbered 128A.) Lecture, three hours; discussion, one hour (when scheduled). Recommended for juniors/seniors. Focus on behavior as product of such evolutionary processes. P/NP or letter grading.

M128Q. Animal Communication. (4) (Formerly numbered M127.) (Same as Communication M127.) 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.

M128R. Hormones and Behavior in Humans and Other Animals. (4) (Same as Physiological Science M140 and Society and Genetics M140.) Lecture, three hours; discussion, one hour. Examination of hormones and their roles involved in hormonal processes and function. Interactions among hormonal levels, environmental stimuli, and behavior. Sexual behavior, pregnancy, and lactation, parental 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 research topics to help use 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 endangered species. P/NP or letter grading.

M128S. Primate Genetics, Ecology, and Conservation. (4) (Same as Society and Genetics M142.) Seminars, three hours. Focus on genetic research on wild populations of different geographic scales, using readings from primary literature. Emphasis on primate genetics, ecology, and behavior. Study of paternity and kinship, intrapopulational variation, population genetics, biogeography, systematics, phylogenetics, and comparative genomics. Utility and appropriateness of various markers considered for different research questions, e.g., mitochondrial DNA, microsatellites, Y-chromosomes, as well as GWAS and genomic/next generation sequencing platforms, and epigenetic markers. Discussion of methods in fieldwork and lab work, including sampling techniques, collection techniques, laboratory techniques, software analysis packages, and statistical analyses. Introductory-level understanding of genetics expected; study further illuminates areas in molecular biology relevant to case studies analyzed. P/NP or letter grading.

129. Selected Topics in Biological Anthropology. (4) (Formerly numbered 129.) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in biological anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

Sociocultural Anthropology

130. Study of Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. Designed for juniors/seniors. 20th-century sociocultural topics and development of concept of culture. Examination of five major paradigms: culture as human capacity, as patterns and products of behavior, as systems of meaning and cognition, as generative structure and semiotic system, as component in social action and reality construction. (Core course for cultural field). P/NP or letter grading.


133. Anthropology of Food. (4) (Formerly numbered 133F.) Lecture, three hours; discussion, one hour (when scheduled). Production, consumption, and distribution of food, with particular emphasis on culture of food. Exploration of ecological history, class, poverty, hunger, ethnicity, nationalism, capitalism, gender, race, and sexuality. Food that shapes identities, desires, and needs in contemporary world. P/NP or letter grading.

135. Visual Anthropology: Documentary Photography. (4) (Formerly numbered 135P.) Lecture, three hours; discussion, one hour (when scheduled). Photo -graphs in anthropology serve many purposes: as primary data, illustrations of words in books, documentation for disappearing cultures, evidence of fieldwork, material objects for museum exhibitions, and evens of work of art. Photographs are tools and relationships between subject and treatment of image, between art anthropology and ethnographic document, role of museum photograph and caption, social practice of taking photographs, and case study on photographing Middle East and North Africa. P/NP or letter grading.

136A-136B. Introduction to Psychological Anthropology. (4–4) P/NP or letter grading.

136A. Historical Development. (4) (Formerly numbered 136A.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. Limited
136B. Current Topics and Research. (Formerly numbered 135B.) 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 study of personality, pathology and deviance, altered states of consciousness, cognition, motivation, and emotion in different cultural settings. P/NP or letter grading.

137P. Anthropology of Deviance and Abnormality. (Formerly numbered 135S.) Lecture, three hours; discussion, one hour (when scheduled). Exploration of mutual relations between anthropology and psychoanalysis, considering both theory and method. History of current developments in psychoanalysis; anthropological critiques of psychodynamic theory and method. Emphasis on concrete psychoanalytic approach. P/NP or letter grading.

137Q. Psychoanalysis and Anthropology. (Formerly numbered 135T.) Lecture, three hours; discussion, one hour (when scheduled). Exploration of mutual relations between anthropology and psychoanalysis, considering both theory and method. History of current developments in psychoanalysis; anthropological critiques of psychodynamic theory and method. Emphasis on concrete psychoanalytic approach. P/NP or letter grading.

138P. Field Methods in Cultural Anthropology. (Formerly numbered 139P.) Lecture, three hours; discussion, one hour (when scheduled). Study of techniques, methods, and concepts of ethnographic research and how basic observational information is systematized for presentation, analysis, and cross-cultural comparison. P/NP or letter grading.

M130Q. Fieldwork in Asian American and Pacific Islander Communities. (Formerly numbered M139Q .) Lecture, three hours; discussion, one hour (when scheduled). Fieldwork in Asian American and Pacific Islander communities. P/NP or letter grading.

139. Selected Topics in Cultural Anthropology. (Formerly numbered 137.) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in cultural anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

140. Study of Social Systems. (Formerly numbered 150.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Fieldwork and guest lectures from local community included. Given in Hawai‘i. P/NP or letter grading.

142P. Anthropology of Religion. (Formerly numbered 150P .) Lecture, three hours. Survey of various methodologies in comparative study of religious ideologies and action systems, including understanding particular religions 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. (Formerly numbered 150Q.) Lecture, three hours. Analytical overview of ethnic and religious minorities in Middle Eastern and North Africa, and in particular in African and Asian societies. P/NP or letter grading.

143. Economic Anthropology. (Formerly numbered 153P.) Lecture, three hours. Requisite: course 3. Introduction to anthropological perspectives for interpretation of economic life and 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.

M144P. Constructing Race. (Formerly numbered M159P.) (Same as African American Studies M159P and Asian American Studies M169.) Lecture, three hours. Examination of race, socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different historical and cultural contexts. P/NP or letter grading.

M144Q. Afro-American Experience in U.S. (Formerly numbered M164.) (Same as African American Studies M164.) Lecture, three hours. Promotes understanding of 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 Remains and Cultural Objects. (Formerly numbered M169.) Lecture, two hours; discussion, one hour. Native American remains and cultural objects in U.S. museums. Examination of this phenomenon. May be concurrent with course C244S. P/NP or letter grading.

M145P. Marriage, Family, and Kinship. (Formerly numbered M151S.) (Same as Gender Studies M155P.) Lecture, three hours. Requisite: course 3. Examination of underlying kinship in cross-cultural perspective and impact of kinship on interpersonal relationships, gender roles, and sociocultural systems. Readings from popular materials and formal ethnographic accounts. P/NP or letter grading.

M145Q. Selected Topics in Gender Systems. (Formerly numbered M154P.) (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 and 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.

M145R. Women and Social Movements. (Formerly numbered M155Q.) (Same as Gender Studies M155R.) 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 role in social formations and centralization of gender interests. P/NP or letter grading.

145S. Culture, Gender, Sexuality. (Formerly numbered M134.) Lecture, three hours. Comparative analysis of ways of organizing and instituting 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. (Formerly numbered M155T.) (Same as Gender Studies M155T.) Lecture, three hours. Preparation: introductory sociocultural anthropology course. Anthropology of Japan has long viewed women’s role as homemaker, but Restoration of diversity and contradiction in it by listening to voices of Japanese women in various historical contexts. P/NP or letter grading.

147. Development Anthropology. (Formerly numbered M156.) 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 how 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.

148. Selected Topics in Social Anthropology. (Formerly numbered M157.) Lecture, three hours; discussion, one hour (when scheduled). 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. (Formerly numbered M140D.) (Same as Linguistics M140D.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Requisite: course 4 or Linguistics 20. Study of language as aspect of culture, examining how language reflects and classifies human experience. Focus on thought and behavior to language; and language and classification of experience. Holistic approach to study of language, with emphasis on relationship of linguistics to anthropology, ethnography, psychology, and social anthropology, as well as archaeology. (Core course for linguistics field.) P/NP or letter grading.

151. Ethnography of Everyday Speech. (Formerly numbered M141.) Lecture, three hours; fieldwork. Requisite: course 4. Designed for juniors/seniors. Course has two interrelated objectives: (1) to introduce students to ethnography of communication—description and analysis of social situations, and cooperative 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. (Formerly numbered M142P.) (Same as Psychology M142P.) Lecture, three hours; discussion, one hour. Lecture, three hours. Exploration 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 in child development, across communities of practice, and across different ethnic and socioeconomic groups. Bridges work from anthropology, psycholinguistics, psychology, and cognitive science. Topics include cross-cultural perspectives on child development and wide range of methodolog-
152G. Language and Social Organization through Life Cycle. (4) (Formerly numbered 149C) Lecture, three hours. Requisite: course 4. Examination of forms of participation and talk-in-interaction across various phases of life cycle from birth to old age, using videotaped interactions of naturally occurring activities. How language and interaction within specific contexts are used to constitute identity and how interaction order resulting from face-to-face interaction profiles in 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. Requisite: course 4. Examination of various ways in which culture, and language in particular, influence not only educational processes and outcomes, but also very conceptions of what normal development processes and desirable educational outcomes are. P/NP or letter grading.

153. Language and Identity. (4) (Formerly numbered 149A) Lecture, three hours. Requisite: course 4. Language as social phenomenon. Introduction to several angles from which language use can be critically examined, with particular significance to interactions between individuals and between social groups. P/NP or letter grading.

154P. Multilingualism: Communities and Histories in Contact. (4) (Formerly numbered 149C) Lecture, three hours. Requisite: course 4. Examination of communication in communities speaking two or more languages (multilingualism) by individuals and by groups. Broader themes in social theory, anthropological theory, sociolinguistics, and literary 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; discussion, one hour. Requisite: course 4. Examination of role language plays in social construction of gender identities and ways in which gender impacts language use and ideologies. P/NP or letter grading.

154SL. Gender and Language across Communities. (4) (Formerly numbered 149SL) Lecture, three hours; discussion, one hour. Requisite: course 4. Examination of how language practices contribute to expressions of gender identities in different social groups and situations. Completion of 20 hours of service learning in community service program coordinated through Center for Community Learning required. Participation in organized service that is conducted in and meets needs of communities. P/NP or letter grading.

155. Native American Languages and Their Speakers. (4) (Formerly numbered 145S) Lecture, three hours. Requisite: course 4 or American Indian Studies M10. Introduction and comparative analysis of sociocultural aspects of language ideologies and language use in indigenous speech communities through America. Examination of cultural diversity of discourse practices for both everyday forms of speaking as well as special registers used in particular cultural contexts, and communication in Native American education contexts is also examined. Considerable attention is paid to Native American verbal art because of its cultural importance. Examination also includes a thorough shift away and current efforts by indigenous groups to reclaim and revitalize heritage languages. Role of linguistic racism directed at Native Americans and hegemonic influence of nation-states is also addressed. P/NP or letter grading.

155L. Language Endangerment and Linguistic Revitalization. (4) (Formerly numbered 161E) (Same as American Indian Studies M162) Lecture, three hours; activity, one hour. Requisites: course 4, American Indian Studies M10. Examination of causes and consequences of current worldwide loss of linguistic diversity and revelation of kinds of efforts that members of threatened heritage language communities have produced in their attempt to revitalize these languages. Projected loss of as many as half of world's languages by end of 21st century can only be explained as outcome of such factors as nationalism, global economic forces, language ideological change, and language shift away from smaller indigenous and tribal languages. Since loss of such languages means both reduction of knowledge and linguistic diversity, many affected communities have engaged in various language renewal practices. Examination of some diverse strategies that have been attempted, including immersion, and American Indian formal, master-apprentice, interactive multimedia, mass media approaches, and language policy-reform approaches. Evaluation of effectiveness of these measures and of strategies used to discuss language endangerment. 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. Relationship between language and human body hosts of interesting topics. New approaches to phenomena such as embodiment become possible when body is analyzed, not as 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 action that count in their lives. Satisfies Writing II requirement. Letter grading.

M158. Culture of Jazz Aesthetics. (4) (Formerly numbered M142R) (Same as Ethnomusicology, M130) Lecture, three hours. Recommended requisite: course 4 or 20A or 21B or 21B-21C or 21B-21D-21E or 20A or American Studies M10. Aesthetics of 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 ethnomusicologists combined with those interested in jazz as cultural tradition. P/NP or letter grading.

159. Selected Topics in Linguistic Anthropology. (4) (Formerly numbered 147) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in linguistic anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

Regional Cultures

160A. Native North Americans. (4) (Formerly numbered 172A) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Consideration of tremendous change Native American societies and cultures have undergone since European contact. Emphasis on patterns of adaptation and continuity as Native Americans confronted colonizer and its implications. 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 social and cultural anthropology of small communities in Latin America. Similarities and contrasts in social organization and interregional relationships described in context of economic, political, and cultural environments. 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 interregional relationships described in context of economic, political, and cultural environments. P/NP or letter grading.

162. Ethnography of South America. (4) (Formerly numbered 174P) Lecture, three hours. Introduction to ethnography of South Americans, with special emphasis on Lowland South America. Survey of history and development of man and society in this world area and examination of exemplary cultures symptomatic of cultural behavior to cultural achievement. P/NP or letter grading.

163P. Ideology and Social Change in Contemporary China. (4) (Formerly numbered 175Q) Lecture, three hours; discussion, one hour (when scheduled). Introduction to sociocultural changes in China from 1949 to present. Topics include ideology and politics in everyday life, social stratification and mobility, cultural construction of socialist person, changes in courtship, marriage, and family, and political economy of reforms in post-Mao era. P/NP or letter grading.

163Q. Societies of Central Asia. (4) (Formerly numbered 175R) Lecture, three hours; discussion of culture and society among diverse peoples of Inner Asia, including Mongolia, Tibet, and Soviet Central Asia. Topics include environment and economic adaptation, political and economic framework of work of national integration, kinship, forms of marriage and status of women, religion and social control, Hindu/Buddhist culture contact zone, and current problems of modernization. P/NP or letter grading.

163R. Japan. (4) (Formerly numbered 175S) Lecture, three hours. Overview of contemporary Japanese society, General introduction, kinship, marriage and family life, social mobility and education, norms and values, religions, patterns of interpersonal relations, social deviance. P/NP or letter grading.

166P. Sub-Saharan Africa. (4) (Formerly numbered 171) Lecture, three hours; discussion, one hour (when scheduled). Active participation in organized service that is interested in jazz as cultural tradition. P/NP or letter grading.

166Q. Culture Area of Maghrib (North Africa). (4) (Formerly numbered M171P) (Same as Arabic M171 and History M108C) Lecture, three hours. Designed for seniors/juniors. Introduction to North Africa, especially Morocco, Algeria, Tunisia, and Libya, also known as Maghrib or Tamazgha. Topics include changing notions of personal, tribal, ethnic, linguistic and religious identities; colonialism; gender and legal rights, changing representations of Islam, and religions in region's public spaces. P/NP or letter grading.

167. Culture Area of Middle East. (4) (Formerly numbered 176) Lecture, three hours. Study of Middle East has suggested many theories as to development of modern history of humankind, evolution of human society, birth of monotheism, and origin of agriculture, trade, and cities. Presentation of anthropological material relevant 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. General geographical features and distribution of language distribution of whole region. Distinctive sociocultural features of each culture area presented in context of their adaptive significance. P/NP or letter grading.

166G. Ethnic Identity and Ethnic Relations in Hawaii. (4) (Formerly numbered M177P) (Same as American Indian Studies M143C) 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 approaches to and basic concepts in study of ethnic identity and ethnic relations. Discussion of history and political 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) (Formerly numbered 179) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in regional cultures. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

Specialized Studies

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.
199. Directed Research in Anthropology. (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. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Conceptualizing Anthropological Research. (4) Seminar, three hours. Introduction to process of conceptualizing research projects, including formulating and theorizing research questions and developing appropriate methodology to carry out research. Preparation of proposals and presentation to group for critique. S/U or letter grading.

M201A-M201B. Graduate Core Seminars: Archaeology. (4-4) (Same as Archaeology M201A-M201B) Seminar, three hours. Course M201A is required of anthropology students in archaeology field seminar. Discussion based on carefully selected list of 25 major works related to development of archaeology in social sciences (M201A) and humanities (M201B). Core seminars provide students with foundation in breadth of knowledge of professional archeologists. Archaeological historiography, survey of world archaeology, and archaeological techniques. Emphasis on appreciation of multidisciplinary background of modern research and development of prospective strategies. May be repeated for credit with consent of adviser. S/U or letter grading.

M201C. Archaeological Research Design. (4) (Same as Ancient Near East M201 and Archaeology M201C) Seminar, three hours. Requisites: courses M201A, M201B. How to design archaeological projects in preparation for MA thesis or PhD phase. Students do exploratory research to select subject, then write research design that could form basis for extensive paper, grant application, or oral examination. Students work closely with faculty members and report weekly on their progress. Preparation of at least two oral progress-reports and presentation, one on theoretical framework and one on practical aspects of project. Final written research design that incorporates theoretical and practical aspects of research and formulates bridging arguments required. S/U or letter grading.

202. Biological Anthropology Colloquium. (4) Seminar, three hours. Selected topics on current status of current research in biological anthropology. May be repeated for credit. S/U or letter grading.

203A-203B-203C. Core Seminars: Sociocultural Anthropology. (4-4-4) Seminar, three hours. Letter grading.


203C. Scientific and Interpretive Frameworks in Contemporary Anthropology. (4) Seminar, three hours. Recommended requisite: course 203B. Examination of selected contemporary issues and issues in field of sociocultural anthropology. Letter grading.

204. Core Seminar: Linguistic Anthropology. (4) Seminar, three hours. Theoretical and methodological foundations of study of language structure and language use. Special emphasis on consciousness of linguistic, philosophical, psychological, and anthropological contributions to understanding of verbal communication as social activity embedded in culture. S/U or letter grading.

Archaeology


CM200. Introduction to Paleontological Sciences. (4) (Same as Ancient Near East CM209B.) Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology. Students attempt 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 mining, mathematical 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 CM1100. S/U or letter grading.

211. Classification in Archaeology: Method and Theory. (4) Seminar, three hours. Limited to graduate anthropology and archaeology students. Discussion of issues that have guided arguments about how archaeological classification of artifacts should be conducted, with focus on ceramic classification and discovery of cultural types. Methods for implementing dispersal approach to classification and relevant interpretations with lithic and pottery examples. Review of relationship between classification, style, and function. S/U or letter grading.

212. Exploration of Societal Change. (4) (Formerly numbered 217.) Seminar, three hours. Examinations of processes of societal evolution, emphasizing usefulness of variety of explanatory models from general systems theory, ecology, anthropology, and other sources. Specific research questions vary with each course offering. May be repeated for credit. S/U or letter grading.

212D. Archaeology of Urbanism. (4) (Formerly numbered 217D) 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. Mesoeamerican and Andean civilizations normally constitute major focus of seminar. May be repeated for credit. S/U or letter grading.

M217. 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 religious groups, or other sources. S/U or letter grading.

CM217. Selected Laboratory Topics in Archaeology. (4) (Formerly numbered M217S.) (Same as Archaeology M205A) Lecture, one hour; laboratory, two hours. Designed for graduate students. Topics may include identification of ethnic groups in archaeology, or in other departments. Specialized analysis of particular classes of cultural remains. Topics may be one of following: zooarchaeology, paleoethnobotany, ceramics, lithic analysis, rock art. Laboratory experience with collections and data. May be repeated for credit with topic change. Concurrently scheduled with course C117. S/U or letter grading.

219. Selected Topics in Anthropological/Archaeological Theory. (4) (Formerly numbered 285P) Seminar, three hours. Designed for graduate students. Viewing anthro/ARCH course on important theoretical subjects in anthropological archaeology. Topics include early village societies, specialization and cultural complexity, ethnography for archaeologists, power and hierarchy in indigenous/colonialist/idealistic debates, urbanism, and exchange systems. May be repeated for credit. S/U or letter grading.
Biological Anthropology
221. Behavior, Evolution, and Culture. (2) Seminar, one and one-half hours. Research seminar. Weekly speaking engagements and theoretical discussions with emphasis on behavioral, evolutionary, and cultural aspects of human behavior. 300B. Seminar, two hours. Letter grading.

222. Field Course: Biological Anthropology in Review. (4) Seminar, three hours. Graduate core course in biological anthropology. 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. Topics include 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 2323R.) Seminar, three hours. Limited to graduate students. Examination of theoretical assumptions and debates that animate visual anthropology 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 2323T.) Seminar, three hours. Emerging work on new information economy and recent work by anthropologists and other social scientists. May be repeated for credit. S/U or letter grading.

233P. Advanced Seminar: Medical Anthropology. (4) Formerly numbered M233P.) Seminar, three hours. Limited to 15 students. Examination of interrelationships between society, culture, ecology, health, and illness. Bases for written critical analysis and discussion provided through key theoretical works. S/U or letter grading.

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 266N.) Seminar, three hours. Recommended preparation: course 230A, 230B, 230C, 240, 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 subjectivity; 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 hosting regular talks and discussions with scholars from UCLA and beyond. Group provides forum for exploring recent research and classical and contemporary theoretical perspectives that inform psychological and medical anthropology. S/U grading.


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

237. Psychological Anthropology. (4) Formerly numbered M2334Q.) (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 theory, culture and personality, and culture psychiatry. Discussion of questions relating to symbolic and unconsciousness processes as they relate to culture. Topics vary from quarter to quarter and are selected for credit with topic change. S/U or letter grading.

238. Native American Revitalization Movements. (4) (Same as History M260C.) Lecture, two hours; discussion, one hour. Examination of revitalization movements among native peoples of North America (north of Mexico). Specific revitalization includes Handsome Lake, 1870 and 1890 Ghost Dances, and Peyote Religion. Letter grading.

239. Selected Topics in Field Ethnography. (4 to 8) Formerly numbered 239.) Seminar, three hours. Discussion and practicum 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 the world and faculty and students from UCLA with discussion regularly attended by students and faculty from wide range of related departments in addition to anthropology. Additional discussions about recently published or unpublished manuscripts. Professionalization sessions for doctoral students. Topics of discussion vary from year to year. S/U grading.


243. Gender Systems. (4) (Formerly numbered M263P.) (Same as Gender Studies M263.) Seminar, three hours. Current theoretical developments in understanding gender systems and their sociocultural context. Topical foci include style and strategy, speech variation, varieties of noncasual speech genres, languages and ethnicity, and nonverbal communication behavior. S/U or letter grading.

244P. Contemporary Issues of American Indians. (4) (Formerly numbered M269.) (Same as American Indian Studies M200C and Sociology M275.) Seminar, three hours. 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.

C245. Repatriation of Native American Human Remains and Cultural Objects. (4) (Formerly numbered C265.) Lecture and discussion, one hour. Native Americans have recently been successful in obtaining passage of federal and state laws repatriating human remains and cultural objects to them. 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 that undergirdes articulation of construct of African diaspora. Structured through understanding of African diaspora as historical formation, with focus on African diaspora as distinct intellectual project. Exploration of ways scholars have conceptualized and theorized diasporic condition of black peoples. Considers of who belongs to African diaspora community, and how this community is imagined. S/U or letter grading.

246. Contemporary Problems in Africa. (4) (Formerly numbered 271.) Seminar, three hours. Problematic issues in Africa in light of classical anthropological literature and recent work by anthropologists and other field workers 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 M296.) 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 newly emerging area of study of colonialism. S/U or letter grading.

247Q. Central Asian Studies: Discipline, Methods, Debates. (2) (Formerly numbered M287R.) (Same as History M287 and Languages M287.) Seminar, two hours. Introduction to study of central Asia as practiced in humanities and social sciences disciplines. S/U grading.


252A. Ethnography of Communication. (4) Formerly numbered 242.) Seminar, three hours. Designed for graduate students. Seminar devoted to examining recent sociolinguistic scholarship on sociolinguistics and ethnography of communication. Particular attention to theoretical developments including relationship of ethnography of communication to such discourses as anthropology, cultural studies, and psychology. Topical foci include style and strategy, speech variation, 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 analyzing communication and interaction in their sociocultural context, involving student-initiated fieldwork in community setting. Emphasis on hands-on activities within theoretical frameworks that con-
sider language as social and cultural practice. De-
voted to skills related to collecting socially and cul-
turally meaningful data. Letter grading.

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

254. Discourse Laboratory. (2) Seminar, two hours. Interdisciplinary discussion group around in-progress
research projects, talks, published articles, and meth-
odological and professional development in linguistic

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 indige-
nous languages and expressions of indige-
genity 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) For-
merly numbered 247.) Seminar, four hours. Detailed examination of specialized topics in semantics and
pragmatics. Topics vary from year to year and may in-
clude metaphor, theories of reference and denotation,
onorific speech, evidentiality, reported speech, etc. May be repeated for credit with topic change S/U or letter
grading.

258. Language Socialization. (4) Formerly num-
bered 248.) Seminar, four hours. Exploration of pro-
cesses of socialization through language and socializa-
tion to use language across lifespan, across commu-
nities of practice within single society, and across
different ethnic and socioeconomic groups. Ways in
which verbal interaction between novices and experts
is structured linguistically and culturally. S/U or letter
grading.

259. Selected Topics in Linguistic Anthropology. (4)
Formerly numbered M241.) Seminar, three hours. Problems
of language, culture, language, culture, and so-
ciety. 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 grad-
uate students preparing for fieldwork. Unique position
of anthropometry among sciences and resulting prob-
lems for scientific research design. Review of typical
research problems and appropriate methods. Stu-
dents prepare their own research designs and present
them for class discussion. S/U or letter grading.

M284A. Qualitative Research Methodology. (4)
Formerly numbered M284A. Same as Community
Health Sciences M216.) Seminar, three hours; labora-
tory, one hour. Intensive seminar/field course in qual-
itative 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 284BP Seminar, three hours. Lim-
ited to graduate students. Recommended prepara-
tion: research design course. Hands-on approach to
qualitative methods used in anthropological research
and techniques for analysis of qualitative data. Partic-
ular methods depend on and are appropriate to re-
search questions and designs students bring to class.
S/U or letter grading.

288. Relational Models Theory and Research De-
sign. (4) Seminar, three hours. Relational models
theory (RMT) posits that people in all cultures use
combinations of just four relational models (RMs) to
organize most aspects of most social coordination:

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**Specialized Studies**

294. Human Complex Systems Forum. (1) Sem-
inari, 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 multigagent perspective.
May be repeated for credit. S/U grading.

295. The Culture and Language of Intersubjectivi-
ty. (4) Seminar, three hours. Enforced requisites:
courses 203A, 203B, and 203C, or 204. Introduction to
notion of intersubjectivity and its relevance for an-
thropological research. Exploration of problem of in-
tersubjectivity in its existential, semiotic, and linguistic
dimensions. Key topics include intentionality, con-
sciousness, empathy, temporality, agency, experi-
ence, and embodiment. 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 an-
thropological 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) Sem-
inari, to be arranged. Preparation: apprentice per-
sonnel employment as teaching assistant, associate,
or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-
sponsible for curriculum and instruction at UCLA.
May be repeated for credit. S/U grading.

485. Teaching Anthropology. (2 to 4) Seminar/work-
shop, three hours. Designed for graduate students.
Required of all new teaching assistants. Workshop/ semina-
in teaching techniques, including evaluation of
each student’s own performance as teaching as-
sistant. Four-day workshop precedes beginning of term, followed by 10-week seminar during term de-
signed to deal with problems and techniques of teaching anthropology. Unit credit may be applied to-
ward 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
device dean, and host campus instructor, depart-
ment chair, and graduate dean. Used to record enroll-
ment of UCLA students in courses taken under coop-
erative arrangements with USC. S/U grading.

596. Individual Studies for Graduate Students. (2
to 9) Tutorial, to be arranged. Directed individual
studies. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2
to 12) Tutorial, to be arranged. S/U grading.

598. Research for and Preparation of MA Thesis. (2
to 8) Tutorial, to be arranged. Preparation of research

599. Research for PhD Dissertation. (2 to 12) Tuto-
rial, to be arranged. PhD dissertation research or
writing. Students must have completed qualifying ex-
aminations and ordinarily take no other coursework.
S/U grading.
ARCHAEOLOGY

Upper-Division Courses

50W. Language and Gender: Introduction to Gender and Stereotypes. (5) Lecture; four 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 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.

101W. Introduction to Language Learning and Language Teaching. (5) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 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.

502W. Nature of Learning. (5) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Exploration of learning via examination of second language acquisition. All normal children acquire language by age two due to innate language acquisition (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 proficiencies that fall far below that of native speakers. Exploration of interaction of emotion and cognition and nature of aptitude and motivation in learning. Primary vehicle for investigation to be autodidactic instruction of native language learners. Satisfies Writing II requirement. Letter grading.


Graduate Courses


509. 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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Willeke 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.

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) Lecture; three hours; discussion, one hour. Archaeology is rapidly developing due to ongoing introduction of new hardware, software, and information dissemination technology. It is multidisciplinary field of study, combining its own research methods and technologies with elements from geology, history, ethnography, geography, material science, statistics, biology, biochemistry, medicine, and others, presenting opportunities not only to obtain new scholarly insights, but also to provide integrated instruction in science, technology, engineering, and mathematics (STEM) skills. Use of archaeological data as paradigm in STEM education. Instant practical application of mathematics during surveying, geology during ceramic analysis or geophysical research, biochemistry during archaeological residue analysis, or biology during zoological or palaeoethnobotanical research offers point of departure for instructors as well as motivation to students. 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. 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.

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

C110. Archaeological Materials Identification and Characterization. (4) Lecture, one hour; laboratory, two hours. Laboratory-oriented introduction for archaeologists to identification and quantitative description of solid materials, especially metals, ce-
C120. Special Topics in Archaeology. (2 or 4) Lecture, three hours. Designed for juniors/seniors. Special topics explore new research and understanding of ancient cultures or topics such as new strategies, regional synthesis, or current work by core program faculty or special visiting scholars. May be repeated for credit with topic change. Concurrently scheduled with course C220. Final project or paper required if taken for 4 units (P/NP or letter grading); 2-unit course has P/NP grading.

C159. Fieldwork in Archaeology. (2 to 12) Fieldwork, to be arranged. Participation in archaeological field excavations or 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 advisor. Concurrently scheduled with course C259. P/NP or letter grading.

C180. Ancient and Historic Metals: Corrosion, Technology, and Microstructure. (6) Seminar, four hours; laboratory. Survey of general overview of the science/technologies of ancient metals, aspects of extraction and alloying, corrosion, and microstructure. Laboratory work on corrosion that ancient metals undergo, and how this impacts their preservation. Exploration of knowledge and research work of last two decades that has substantially advanced understanding of processes of extraction, alloying, surface patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of common alloying systems and environments. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese sword-making, Indian high-tin bronze alloys, bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C180. Letter grading.

C257. Depositional History and Stratigraphic Analysis. (4) Lecture, four hours; laboratory. 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 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.

C280. 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 patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of common alloying systems and environments. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese sword-making, Indian high-tin bronze alloys, bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C180. Letter grading.

C289. 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 patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of common alloying systems and environments. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese sword-making, Indian high-tin bronze alloys, bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C180. Letter grading.

C375. 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.

C501. 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.

C596. Individual Studies for Graduate Students. (2 to 12) Tutorial, to be arranged. May be repeated for credit with consent of advisor. S/U or letter grading.

C597. 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 advisor. S/U grading.

C598. MA Paper Preparation. (2 to 12) Tutorial, to be arranged. May be repeated for credit with consent of advisor. S/U grading.

C599. PhD Dissertation Research and Preparation. (2 to 12) Tutorial, to be arranged. May be repeated for credit with consent of advisor. S/U grading.

Architectural and Urban Design
School of the Arts and Architecture
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Admissions e-mail
Heather L. Roberge, Macrh, Chair
Professors
Hitoshi Abe, PhD (Paul L. and Hisako Terasaki Professor of Contemporary Japanese Studies)
Dana Cuff, PhD
Neil M. Denari, MArch
Craig E. Hodgetts, MArch
Sylvia Lavin, PhD
Greg S. Lynn, MArch
Mark Mack, MArch
Thomas May, MArch
Ben J. Refuerzo, MArch
Professors Emeriti
Marvin Adelson, PhD
Samuel Aron, PhD
Diane G. Favro, PhD
Baruch Givoni, PhD
Thomas S. Hines, PhD
F. Eugene Kupper, MArch
Jung Lang, DiplArch
Robin S. Liggitt, PhD
Murray A. Milne, MArch
Barton Myers, MArch
George Rand, PhD
Dagmar E. Richter, DiplArch
Richard Schoen, MArch
Thomas R. Weeland, Jr., MArch

Associate Professors
Michael Osman, PhD
Jason K. Payne, MArch
Heather L. Roberge, MArch

Adjunct Professors
Kevin M. Daly, MArch
Alan Locke, MSic
Roger Sherman, MArch

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

Adjunct Assistant Professors
Eris Blesler, MArch
Julia Körner, MSic
Andrew Kovacs, MArch
Mohamed Shariif, MSic
Eui-Sung Yi, MArch

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.

In the U.S. most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. NAAB, the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: Bachelor of Architecture and Master of Architecture. A program may be granted a five-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established standards. Master’s degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

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, a three- to six-page PDF of creative work. Applications are available in the department office or online. UCLA students are encouraged to consult with the undergraduate adviser.

Preparation for the Major

The Major
Required: Architecture and Urban Design 121, 122, 123, 131, 132, 133, 141, 142, 143.

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 Architecture and Urban Design offers Master of Architecture I (MArch I) and Master of Architecture II (MArch II) degrees, and Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Architecture. A concurrent degree program (Architecture MArch I/URP) and a Graduate Certificate in Urban Humanities are also offered.

Architecture and Urban Design
Lower-Division Courses
1. Introduction to Design. (2 or 3) Studio/lecture/field trips, 40 hours. Limited to high school students. Two- or three-week intensive summer course in architectural design, with focus on developing design skills through space making and its representation. Exposure to contemporary architectural practices through studio work, lectures and presentations, field trips, and final demonstration, critique, and exhibition of student work. Offered only as part of Teen Arch Studio summer program. P/NP grading.

10A. History of Architecture and Urban Design: Prehistory to Mannerism. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration of developments in global architecture and urban design from prehistory to 1600 and critical reflection on terms such as building, architecture, city, history, and culture. Focus on world context, construction and technology, and history of architectural ideas. P/NP or letter grading.

10B. History of Architecture and Urban Design: Baroque to Contemporary Moment. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Survey of architectural and urban history from 1600 to present in global context. Exploration of buildings, cities, spaces, artifacts, landscapes, and ideas through their relation to geopolitical conditions and through their relation to theories of design. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

30. Introduction to Architectural Studies. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration of role of built environment in social, cultural, and political life; how buildings are constructed, what they mean, effects they have on world, and ways they imagine new futures and shape private and public life. Focus on series of case studies for each revealing about new possibilities for shaping world in which we live, with emphasis on how architecture extends to cities, roads, books, and films. Consideration of historical context and cultural genealogy of particular buildings and environments, material and economic conditions of building, and more. P/NP or letter grading.

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

102. Introduction to Representation. (2) Studio, four hours; outside study, two hours. Limited to currently enrolled college/university students and graduates of colleges/universities. Introduction to techniques of spatial representation 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 but not limited to: graphic imaging using Adobe suite 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. Introduction 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 discipline, profession, and organization of the built environment and the opportunities and responsibilities of architectural form to human body and role of architectural space in choreography of human activity. Understanding and application of knowledge of architectural tectonics, structure, and measurement. Letter grading.

M125B. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hyperecrites, and Timelines. (4) (Same as Ancient Near East M125B.) Laboratory, three hours; discussion, one hour. Enforced requisite: Ancient Near East 125A. Hands-on-laboratory-based investigation of emerging 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 Ancient Near East 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 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. 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. Students work on research project supported by W.M. Keck Foundation. Offered in summer only. P/NP or letter grading.

M130. Space and Place. (4) Formerly numbered M130. (Same as World Arts and Cultures M130.) Lecture, three hours; outside study, 12 hours. Limited to juniors/seniors. Introduction to problem of space in cultural and historical context and places from cross-cultural or comparative perspective and with performance emphasis, with focus on 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. Concurrently 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. Investigation of relationships between culture and design through medium of digital architecture. How design is influenced by technology and new paradigms of aesthetic, political, spatial, economic, technological, and social issues. Letter grading.


133. Modernism and Metropolis. (5) 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 in myriad forms across globe, so that city and suburb, taken together, exist in complex commingling of aesthetic, political, spatial, economic, technological, and social issues. Letter grading.

141. Technology I: Projections. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Overview of three-dimensional computer-aided visualization concepts, teaching applications of AutoCAD and Maya and their use relative to process of design and visual communication. Basic representation methods and tools and introduction to additional concepts required to digitally interact with computer and to explore and understand communicative capacities of different methods of representation. Explanation of bitmap versus vector graphics, typography basics, and color output and integration for print and Web, and introduction to three-dimensional digital modeling and fabrication. Letter grading.

142. Technology II: Building Materials and Methods. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to computer-aided design and modeling, applying skills students learned in Ancient Near East 125A and M125B to 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. 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. Students work on research project supported by W.M. Keck Foundation. Offered in summer only. Letter grading.

143. Technology III: Digital Technology. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Overview of three-dimensional computer-aided visualization concepts, teaching applications of AutoCAD and Maya and their use relative to process of design and visual communication. Basic representation methods and tools and introduction to additional concepts required to digitally interact with computer and to explore and understand communicative capacities of different methods of representation. Explanation of bitmap versus vector graphics, typography basics, and color output and integration for print and Web, and introduction to three-dimensional digital modeling and fabrication. Letter grading.

CM135. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Environment M153.) 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, recycling, and appropriate use of resources, including material and water and land. Concurrently scheduled with course CM247A. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

191. Interventions: Urban humanities in Action (Capstone Studio). (4) Seminar, four hours; studio, two hours. Limited to seniors. Concurrently scheduled with course CM151. Using Los Angeles as laboratory, students address issues of spatial justice through scholarly and practical urban interventions. Projects deploy spatial technologies 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. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M201. Theories of Architecture. (4) (Same as Urban Planning M201.) Lecture, three hours. Exploration of conceptual and historical structures that shape current issues in architectural theory. Readings in primary texts serve as framework for understanding nature of speculative inquiry in architectural context. Letter grading.

220. 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. Application of computer-aided design is commonly found in professional offices. Two-
three-dimensional representation (i.e., painting, drafting, multimedia, hypermedia, and modeling). Letter grading.

226C. 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.

227D. Design and Building Models. (4) Lecture, three hours. Review of range of information and knowledge potentially used in design, representation, abstractions, and constructs. Logical structure of design information. Development of knowledge used in areas of design, how it can be identified, and structured. Letter or S/U grading.

CM230. Space and Place. (4) Same as World Arts and Cultures CM230.) Lecture, three hours. Survey of array of spaces and places from cross-cultural or comparative perspective and with performance emphasis, with focus on mutual interaction of human beings and their created environments. Emphasis on common, ordinary, anonymous, or vernacular nonbuilt and built environments, 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.

234A. Introduction to Sustainable Architecture and Community Planning. (4) Same as Urban Planning B234A.) Lecture, one hour; discussion, one hour; studio, six hours. Analysis of relationship of 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 CM130. S/U or letter grading.

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

272. Roman Architecture and Urbanism. (4) Lecture, three hours. Examination of architectural and urban developments during Roman period, from archaic age to late Empire. Built environments of ancient world investigated from various perspectives, with consideration to programming, symbolism, and viewing, as well as to technological, aesthetic, and political factors. S/U or letter grading.

288. Renaissance Architecture and Urbanism. (4) Lecture, three hours. Examination of architectural developments from 15th to 17th century. Primary focus on Italian peninsula, and extending to entire Mediterranean basin. Analysis of individual structures, cities, and landscape designs to reveal cultural and theoretical values, as well as specific aesthetic and ideological elements. S/U or letter grading.

289. Special Topics in Architecture and Urban Design. (2 to 4) Lecture, three hours. Introduction to models, concepts, and theories concerning impact of environment on human behavior, perception, and thought. Review of research results concerning space perception, cognitive mapping, decision making, and process of perception. 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. Analytical and descriptive methods of humanities paired with speculative and projective methods of architectural and urban design to better understand contemporary state of urban environment. Focus on Los Angeles, with concepts seminar, methods laboratory, projects studio, and site visit components. Offered in summer only. S/U or letter grading.

296A. Crosssectional History of Architecture. (4) Culture, (4) Seminar, three hours. Orientation for Ph.D. students to tradition of architectural theory, scholarship, and research and to current research directions and questions, through intensive reading and critical discussion. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. 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 studios (courses 412, 413, 414) or MArch II student. Students may choose (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. Letter grading.

402. Final Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate-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 report with graphic component that critically examines final student design work) required at completion of course. Letter grading.

403A-403B-403C. Research Studios. (2–2–6) For courses 403A, 403B: seminar, three hours; outside study, three hours; studio, six hours. Preparation: satisfactory completion of intermediate-level courses (412, 413, 414) 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.

M404. Joint Planning/Architecture Studio. (4) (Same as Urban Planning M404.) Lecture, one hour; discussion, one hour; studio, four hours. Opportunity to work as a team on one project for a client. Outside speakers; field trips. Examples of past projects include Third Street Housing, Santa Monica; New American House for nontraditional households; Pico-Robertson Housing; working with resident leaders at Los Angeles City public housing developments, S/U or letter grading.

411. Introductory 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 processes, particularly, the planning process on architectural forms and concepts. In second phase, introduction of structural elements to fulfill program requirements and to support and further develop introduced forms and conceptual devices. Offered in 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. Cumulation of core sequence (courses 411 through 414), organization and development of project. Technical concerns such as lighting, material innovation, sustainability, construction documents, and building envelopes to be considered critical to generation of architectural form, integrated in design of single building project. Letter grading.


433. Structures III. (4) Lecture, three hours. Preparation: course 432. Introduction to statically indeterminate analysis. Structural materials and loads. Wind loads: distribution with height, design for comfort,

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 Architecture. (2 to 8) Tutorial, to be arranged. Projects initiated either by individual students or student teams and directed by faculty member. May be repeated for credit. S/U or letter grading.

497. Special Projects in Urban Design. (2 to 8) Tutorial, to be arranged. Projects initiated either by individual students or student teams and directed by faculty member. May be repeated for credit. S/U or letter grading.

498. Comprehensive Examination Seminar. (4) Seminar, three hours; outside study, nine hours. Seminar intended to begin process of developing independent proposal with related research and documentation that moves toward production of final document or book for each project. 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 Research and Study in Architecture. (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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Charles R. Ray, MFA
Nancy J. Rubins, MFA
Adrian A. Saxe, BFA
James Welling, MFA

Assistant Professor
Rodrigo A. Valenzuela, MFA

Lecturer
Jacob M. Samuel, BFA

Scope and Objectives
The Department of Art offers professional art training that emphasizes experimentation and encourages students to draw from many disciplines in their creative process. The curriculum offers a strong background in theory and criticism to support contemporary studio practice. Bachelor of Arts degree coursework and Master of Fine Arts degree specialization include ceramics, new genres, painting and drawing, photography, and sculpture. An interdisciplinary studio option is offered within the MFA program. All programs have access to the art resources at UCLA and in the Los Angeles community.

The Department of Art reserves the right to hold for exhibition purposes examples of any work done in classes and to retain for the permanent collection such examples as may be selected.

Additionally, the Department of Art 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.

Art BA
Capstone Major

Learning Outcomes
The Art major has the following learning outcomes:

- Familiarity with and competency in multiple techniques and media, and a level of proficiency utilizing particular media appropriate to advanced studio projects
- Development of a body of original artwork
- Familiarity with historical precedents for, and issues in, contemporary art
- Understanding of terms and concepts relevant to contemporary art discourse
- Ability to effectively analyze works of art through studio critique

Preparation for the Major

The Major
Required: A minimum of nine upper-division courses, including Art 100 or 132 or one course from an approved list of upper-division nonmajor courses, six courses from at least four of the following studio areas: 130, 133, 137, 140, 145, 147, 148, one course from Art History M110A through 185, one capstone senior studio course (Art 150), and 8 units of art electives.

Each course applied toward major requirements must be taken for a letter grade, with the exception of Art 190, 193, and 195, which are offered only on a Passed/Not Passed grading basis. Of those, no more than 4 units total may be applied toward the upper-division art elective requirement.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Art offers the Master of Fine Arts (MFA) degree in Art.
Art

Lower-Division Courses

1A. Drawing. (4) Studio, eight hours; five hours arranged. Course in basic drawing skills intended as preparation for work in variety of media. P/NP or letter grading.

1B. Sculpture. (4) Studio, eight hours; five hours arranged. Introduction to concepts and forms of contemporary sculpture to become familiar with tools and materials; technical prerequisites to visually manifest their individual ideas. Presentation of work of contemporary artists. P/NP or letter grading.

11A. Painting. (4) Studio, eight hours; five hours arranged. Basics of painting: introduction to technical procedures, tools, and materials. Discussion of fundamental conceptual and formal concerns. P/NP or letter grading.

11B. Photography. (4) Studio, eight hours; five hours arranged. Fundamentals in technique, with emphasis on individual projects. Varied approaches, processes, and applications of photographic medium within context of art, supported by studies in theory, aesthetics, and history of photography. P/NP or letter grading.

11C. Printmaking. (4) Studio, eight hours; five hours arranged. Introductory survey of various technical and conceptual concerns in variety of printmaking media as preparation for more focused study in particular media. P/NP or letter grading.

11D. New Genres. (4) Studio, eight hours; five hours arranged. Introduction to projects in installation, performance, video, film, intermedia, and other nontraditional media and processes. P/NP or letter grading.

11E. Ceramics. (4) Studio, eight hours; five hours arranged. Introduction to ceramic materials and processes, with emphasis on personal and cultural expression in ceramic media. Discussion of ceramics in contemporary artistic practice and social history of ceramic art. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Production. (2) Studio, four hours. Limited to Art majors. Instruction in production techniques and processes, including basics of recording still images, moving images, and sound. Discussion of professional setups and standard practices as well as alternatives. Editing of still images, moving images, and sound. 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.

21A. Production: Photograph Print. (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 hand-held, fig-rig, dolly-shots, and green screens. Introduc- tion 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. Focus on 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 thought on contemporary art, with emphasis in theory and practice of modernist movements. Ongoing development of familiarity with materials and techniques. Letter grading.

70. Summer Art Institute: Special Topics in Studio. (5) 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, film trips, critiques, and final exhibition of student work. Offered only as part of Summer Institute. May be repeated once for credit. P/NP grading.

99. Honors Seminars. (1) Seminar, three hours. Limited to 50 students. Designed as an introduction to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities under the supervision of an honors instructor. Letter grading. 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 for maximum of 20 units. P/NP or letter grading.

Upper-Division Courses

100. Issues in Contemporary Art. (5) Lecture, three hours; discussion, one hour; screenings/research, 11 hours. Requisites: courses 31A, 31B, 31C. Selected topics in theoretical, critical, aesthetic, and historical studies that are central to the practice of artists. May be repeated for maximum of 20 units. Letter grading.

130. Advanced Drawing. (5) Studio, eight hours; seven hours arranged. Requisite: course 1A. Drawing as both independent expressive medium and as means of visual thinking. May be repeated for maximum of 20 units. Letter grading.

132. Survey of Critical Thought. (5) Lecture, three hours; discussion, one hour; screenings/research, 11 hours. Requisites: courses 31A, 31B, 31C. Overview of premodern, modern, and postmodern theory as reflected in critical writing and artistic practice, with emphasis on 1940s to present. Specific topics may vary. May be repeated for maximum of 20 units. Letter grading.

133. Advanced Painting. (5) Studio, eight hours; seven hours arranged. Requisite: course 11A. Varied media and subjects to further develop students’ technical and expressive means to implement their ideas. May be repeated for maximum of 20 units. Letter grading.

137. Advanced New Genres. (5) Studio, eight hours; seven hours arranged. Requisite: course 11D. Emphasis to be selected by faculty 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 11C. Selected studies in fine printmaking, historical and contemporary woodcut, etching and engraving, lithography, silkscreen, powders. May be repeated for maximum of 20 units. Letter grading.

145. Advanced Sculpture. (5) Studio, eight hours; seven hours arranged. Requisite: course 1B. Selected studies in sculpture, historical and contemporary: relief carving, cast iron, and other media; introduction to and development of familiarity with materials and techniques. May be repeated for maximum of 20 units. Letter grading.

147. Advanced Photography. (5) Studio, eight hours; seven hours arranged. Requisite: course 11E. Selected projects in photography and related media, concentrating on development of individual students’ approach to studio emphasis through critical thought and analysis. 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/lecture, four to eight hours; field trips, four to eight hours arranged. Concurrently scheduled with course C281. Letter grading.

180. 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.

181. 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 publication as intertextual system of meaning, beginning with individual works and proceeding to on-site analysis of current exhibitions. Concurrently scheduled with course C281. Letter grading.

182. 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.

183. 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. Introduction to principles of program planning and community development in relation to visual arts and work of art museums. Concurrently scheduled with course C283. Letter grading.


M185. Whose Monument Where: Course on Public Art. (4) Same as Chicana and Chicano Studies M185 and World Arts and Cultures M126. Lecture, four hours. Recommended prerequisite: course M186A, M186B, or M186C. Examination of public monuments in U.S. as basis for cultural insight and critique of
American values from perspective of artist. Use of urban Los Angeles as textbook in urban space issues such as who is public, what is public space at end of 20th century, what defines neighborhoods, and do different ethnic populations use public space differently.

M186A. Beyond Mexican Mural: Beginning Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186A and World Arts and Cultures M125A; C287.) Corequisite: course C186CL. Discussion of vision, goals, and scope of collections, collecting. Visits to institutions and collections and community. Students research, design, and work with community participants. P/NP or letter grading.

M186AL-M186BL-M186CL. Beyond Mexican Mural: Muralism and Community Laboratory. (4–4–4) (Same as Chicana and Chicano Studies M186AL-M186BL-M186CL and World Arts and Cultures M125AL-M125BL-M125CL.) Course M186AL is required to M186BL, which is required to M186CL. 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 enrolled in laboratory and with laboratory teacher support, it offers instruction as students independently and in collaborative teams research, design, and produce large-scale painted and digitally generated murals to be placed in community setting. Corequisite: course M186AL. Beginning, laboratory, four hours. Corequisite: course M186AL; M186BL. Intermediate, laboratory, four hours. Corequisites: courses M186A, M186AL. Corequisite: course M186B; M186CL. Advanced, laboratory, two hours. Corequisite: course M186C.

M186B. Beyond Mexican Mural: Intermediate Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186B and World Arts and Cultures M125B.) Studio/lecture, four hours. Requisites: courses M186A, M186AL. Corequisite: course M186BL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Studies research, design, and work with community participants. Continuation of project through states of production to full scale and community approbation. Corequisite: course M186CL. 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 dedication. With work on more advanced independent projects. P/NP or letter grading.

C187. Contemporary Art Collections in Los Angeles. (2) Seminar, three hours; outside study, three hours. Limited to junior/senior Art majors. 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 role of teaching assistants responsible for curriculum and instruction at UCLA. Corequisite: course M186A. May be repeated for credit. P/NP 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. Focus on teaching assistants and group proposals proposed by MFA students. May be repeated for credit. P/NP 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. May be repeated for credit. P/NP grading.

501. MFA Working Groups. (2) Research group meeting, two hours. Limited to MFA students. Three or more MFA candidates propose research and/or studio topic and invite Art Department faculty member to mentor group/topic. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Practicum. (1) Seminar, three hours; outside study, three hours. For first-year teaching assistants. Introduction to 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. Designing and developing 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.
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Bronwen Wilson, PhD

Professors Emeriti
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John M.D. Pohl, PhD

Adjunct Assistant Professors
Maria C. Berns, PhD
Gregory T. Harwell, PhD

Scope and Objectives
The Department of Art History offers programs leading to the Bachelor of Arts, Master of Arts, and PhD degrees. It endorses an interdisciplinary and intercultural approach to art history of all periods and places. By thinking across current categories and boundaries and even critically interrogating art history itself, students are encouraged to question the canon, rethink the relationship between margins and centers, and practice a socially and politically responsible art history.

The rich and varied art resources available at UCLA and throughout Southern California offer students extraordinary opportunities to supplement the formal curriculum.

Undergraduate Study
The Art History Department offers a designated capstone program for undergraduate majors. Students have options for completing a senior honors thesis, a directed independent study, an advanced undergraduate seminar, a museum studies internship, a research assistantship, or a faculty-approved upper-division course that includes additional coursework culminating in the completion of a capstone paper. Through their capstone work, students are expected to conceive and execute a research or creative project; identify and evaluate documentation relevant to the discipline; develop an enhanced capacity for writing and research, critical and analytical thinking, and competent familiarity with art historical methodologies; and identify and articulate these arguments within art historical discourse and areas of specialization. The capstone experience also enables students to develop an enriched understanding of the foundations of the discipline, as well as the current landscape of the field.

Art 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 24 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. Some of these courses are prerequisites to certain upper-division courses. Students are encouraged to discuss their course plans with an advisor.

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 of approximately 30 pages. The program gives qualified students the opportunity to work closely with individual professors on an in-depth supervised research and writing project.

All senior Art History majors who have completed a minimum of six upper-division art history courses with a departmental grade-point
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 206B 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 through 31.

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


2. Two courses from at least two of the following five geographic regions: (a) Antiquity—Arts of Islamic, Carolingian, Ottoman, Romanesque, and Byzantine 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. (Formerly numbered 55B.) 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. (Formerly numbered 55A.) Lecture, three hours; discussion, one hour; museum field trips. Introduction to art 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.

3. Three additional art history elective selected from courses 100 through 185; course 197A may also be included.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

By petition, one upper-division course with substantial art historical content and methodology applied toward the students’ majors may also be applied toward this minor.

Each minor course must be taken for a letter grade (unless the course is graded only on a P/NP basis), 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 Art History offers Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Art History.

Art History

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

20. Ancient Art. (5) Formerly numbered 50. Lecture, three hours; quiz, one hour; museum field trips. Prehistoric, Egyptian, Mesopotamian, Aegean, Greek, Hellenistic, and Roman art and architecture. P/NP or letter grading.


22. Renaissance and Baroque Art. (5) Formerly numbered 57.) Lecture, three hours; discussion, one hour. Survey of Renaissance and baroque art. P/NP or letter grading.

23. Modern Art. (5) Formerly numbered 54.) Lecture, three hours; discussion, one hour; museum field trips. History of modern art from 1860s to 1980s, 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) Formerly numbered 58.) Lecture, three hours; discussion, one hour. Introduction to study of architectural history through examination of built environments from past to centuries. Building technologies and forms of economic, social, and political life have produced modern built environment that is both diverse and increasingly connected. Focus on factors that have affected architecture globally and those that give regions, cultures, and historical periods their particular qualities. Topics include architectural and urban ramifications of modern self-consciousness, nationalism and internationalism, industrialism, colonialism and anticolonialism, and new art and architectural theories. P/NP or letter grading.

27. Art and Architecture of Ancient Americas. (5) Formerly numbered 55B.) Lecture, three hours; discussion, one hour; museum field trips. Discussion 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.

29. Chinese Art. (5) Formerly numbered 56B.) Lecture, three hours; discussion, one hour; museum field trips. Introductory course 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.

31. Art of India and Southeast Asia. (5) Formerly numbered 56A.) 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.

88. Lower Division Seminars. (4) Seminar, three hours. Limited to freshmen. Variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater detail 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

C148A. Art and Material Culture, Neolithic to 210 BC. (4) (Formerly numbered C115D.) Lecture, three hours. Genesis of Chinese civilization in light of new archaeological finds, including sites and works of art (e.g., ceramics, bronzes, jades). Concurrently scheduled with course C248A. P/NP or letter grading.

C148B. Art and Material Culture of Early Imperial China, 210 BC to AD 906. (4) (Formerly numbered C115E.) Lecture, three hours. Palaces and tombs of early imperial China, impact of Buddhist art (e.g., temples), rise of new media and technologies. Concurrently scheduled with course C248B. P/NP or letter grading.

C148C. Art and Material Culture of Late Imperial China, 906 to 1911. (4) (Formerly numbered C115F.) Lecture, three hours. Secular and religious (Buddhist and Taoist) architecture, painting, sculpture, and various luxury industries (lacquer, porcelain, textiles, jade, bronze, furniture, gold and bamboo carving etc.). Concurrently scheduled with course C248C. P/NP or letter grading.

C148D. Advanced Chinese Art. (4) (Formerly numbered C115B.) Lecture, three hours. Study in Chinese painting and sculpture. (Formerly numbered with course C248D.) P/NP or letter grading.

C148E. Art in Modern China. (4) (Formerly numbered C115G.) Lecture, three hours. Concentrated look at major schools and masters of Chinese art from turn of 20th century to present, with focus on interaction with foreign cultures and issues of self-identity, assimilation, modernity, tradition, and continuity. Consideration of recent developments in Chinese art in global context. Concurrently scheduled with course C248E. P/NP or letter grading.


C148G. 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 C248G. P/NP or letter grading.

C149. Selected Topics in Chinese Art. (4) (Formerly numbered C115I.) Lecture, three hours. Variable topics in Chinese art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C248A. P/NP or letter grading.


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 C251A. P/NP or letter grading.

C152A. Arts of Korea. (4) (Formerly numbered 114E.) 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 contemporarv East Asian cultural and political interrelations. P/NP or letter grading.

C152B. History of Korean Painting. (4) (Formerly numbered C140A.) Lecture, three hours. Limited to juniors/seniors. Korean painting history from Three Kingdoms period to Choson dynasty, with special emphasis on Buddhist iconography and relationships between sculpture, painting and architecture. Concurrently scheduled with course C252B. P/NP or letter grading.

C152C. History of Korean Ceramics. (4) (Formerly numbered C140B.) Lecture, three hours. Limited to juniors/seniors. History of Korean ceramics from Neolithic period to present, with consideration of technological and stylistic developments. Concurrently scheduled with course C252C. P/NP or letter grading.

C152D. History of Korean Buddhist Art. (4) (Formerly numbered C140C.) 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 relationships between sculpture, painting and architecture. Concurrently scheduled with course C252C. P/NP or letter grading.

C153. Selected Topics in Korean Art. (4) (Formerly numbered C140D.) Lecture, three hours. Limited to juniors/seniors. 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 C253A. P/NP or letter grading.

C154A. Early Art of India. (4) (Formerly numbered C115A.) Lecture, three hours. Not open to freshmen. Survey of Indian art from Indus Valley cultures to 10th century. Emphasis on Buddhist and Hindu backgrounds of art. P/NP or letter grading.

C154B. Later Art of India. (4) (Formerly numbered 114D.) Lecture, three hours. Not open to freshmen. Survey of Indian art from 10th to 19th century. Decline of Buddhist art, last efflorescence of Hindu architecture, Muslim painting and architecture, and Rajput painting. P/NP or letter grading.

C154C. Advanced Indian Art. (4) (Formerly numbered C115A.) Lecture, three hours. Requisite: course 154A. Study in Indian sculpture and architecture. Concurrently scheduled with course C255A. P/NP or letter grading.

C154D. Modern and Contemporary South Asian Art. (4) Lecture, three hours. Three four-hour discussion, one hour (when scheduled). Topics in modern and contemporary South Asian art from 1900 to present. P/NP or letter grading.

C155. Selected Topics in South and Southeast Asian Art. (4) 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 C255A. P/NP or letter grading.

C156. Arts of Southeast Asia. (4) (Formerly numbered 114F.) Lecture, three hours. Not open to freshmen. Southeast Asian art from its beginning in prehistory through 19th century. Study of art 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.

C160. Art and Empire. (4) (Formerly numbered C180A.) Lecture, three hours. Consideration of relationship between art and imperial ideologies and introduction to current issues in colonial studies and post-colonial criticism. Concurrently scheduled with course C260A. P/NP or letter grading.

C161. Cities in History. (4) (Formerly numbered 113B.) Lecture, three hours; discussion, one hour. Examination of history of cities worldwide, locating cities in their aesthetic, social, cultural, and symbolic contexts. History of cities from origins of 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) (Formerly numbered C130A.) Lecture, three hours; discussion, one hour (when scheduled). Introduction to museology as critical practice, with emphasis on history and theory of museums and impact of culture and society on current museum theory and practice. Concurrently scheduled with course C270A. P/NP or letter grading.

C170B. Museum Studies Practicum. (2 to 4) (Formerly numbered C130C.) Lecture, three hours. On-site examination and discussion of selected artworks, exhibits, and associated published and distributed materials, and of museum and gallery institutions, practices, and policies. Concurrently scheduled with course C270B. Letter grading.

C171. Selected Topics in Museum Studies. (4) Seminar, 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) (Formerly numbered C130D.) Lecture, three hours. Designed for Anthropology and History Majors and other juniors/seniors. Introduction to general considerations of preservation and restoration 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 different cultural heritage materials both in museum and outdoor environment contexts. Materials and techniques used to make cultural heritage materials, in relation to preservation efforts to prevent deterioration to examples of 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 differently accepted according to those values. Concurrently scheduled with course C272A. P/NP or letter grading.

C172B. Art: Fakes, Forgeries, and Authenticity. (4) Concurrently scheduled with course C272B. 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 problematic situations to 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 antiquities and traditional African art. Background of art restoration and art conservation discussed in relationship to authenticity and technical studies. Scientific tools that form basis of another kind of connoisseurship described in technical testing 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 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 how 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 layout. 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 audience and how objects and their arrangement convey deliberate or accidental messages. Consideration of audiences as well
Graduate Courses

210. Art Historical Theories and Methodologies. (4) Seminar, three hours. Critical examination of history of discipline of art history explored through readings, discussion, research papers, and oral presentations. May be repeated twice for credit. P/N or letter grading.

210. 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. May be repeated for credit with consent of adviser. S/U or letter grading.

210. 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.

210. Topics in Architectural History and Theory. (4) Seminar, three hours. Focused studies of various theoretical and critical traditions within architectural history, concentrating on particular issues, authors, or methodologies either within or across historical, geographic, and cultural areas. May be repeated for credit with consent of adviser. S/U or letter grading.


210. Egyptian Art. (4) Seminar, two hours. Requisite: courses M110A, M110B, M111. Art in Egypt during Late Period and Graeco-Roman period. Students should be ready to prepare for every meeting oriented toward the study of art appropriate to a breadth of no less than 1000 BCE. May be repeated for credit with consent of adviser. S/U or letter grading.

210. Topics in Ancient Art. (4) Seminar, two hours. Studies in Greco-Roman art and archaeology. Studies of specific periods, sites, or artistic media. May be repeated for credit with consent of adviser. S/U or letter grading.

210. Late Antique Art and Architecture. (4) Lecture, three hours. Art and architecture of late Roman Empire and early Christian world. Concurrently scheduled with course C114D. S/U or letter grading.


C216B. Late Byzantine Art and Architecture. (4) Lecture, three hours. Concurrently scheduled with course C116B. S/U or letter grading.

C216A. Middle Byzantine Art and Architecture. (4) Lecture, three hours. Concurrently scheduled with course C116A. S/U or letter grading.

C217A. Medieval Archaeology. (4) Lecture, three hours. Archaeology of medieval world. Concurrently scheduled with course C117A. S/U or letter grading.

C217B. Selected Topics in Medieval Art. (4) Lecture, three hours. Concurrently scheduled with course C117B. S/U or letter grading.

C217C. Byzantine Art, Architecture, and Archaeology. (4) Seminar, two hours. Selected topics in Byzantine art and architecture. May be repeated for credit with consent of adviser. S/U or letter grading.

C218. Selected Topics in Armenian Art. (4) Lecture, three hours. Concurrently scheduled with course C118C. S/U or letter grading.

C219. Selected Topics in Islamic Art. (4) Seminar, two hours. Studies in Greco-Roman art and archaeology. Studies of specific periods, sites, or artistic media. May be repeated for credit with consent of adviser. S/U or letter grading.

C220. Selected Topics in Islamic Art. (4) Seminar, two hours. Studies in Greco-Roman art and archaeology. Studies of specific periods, sites, or artistic media. May be repeated for credit with consent of adviser. S/U or letter grading.

C221. Advanced Studies in Islamic Art. (4) Seminar, three hours. Concurrently scheduled with course C117B. S/U or letter grading.

C222. Selected Topics in Islamic Art. (4) Seminar, two hours. Studies in Greco-Roman art and archaeology. Studies of specific periods, sites, or artistic media. May be repeated for credit with consent of adviser. S/U or letter grading.

C223. Selected Topics in Islamic Art. (4) Seminar, two hours. Studies in Greco-Roman art and archaeology. Studies of specific periods, sites, or artistic media. May be repeated for credit with consent of adviser. S/U or letter grading.

C224. Northern Renaissance Art. (4) Seminar, two hours. Preparation: knowledge of German. Emphasis on selected topic (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) Seminar, three hours. Art and architecture of Spain or Italy, 16th to late 17th century. Concurrently scheduled with course C125A. S/U or letter grading.

C226. Early Modern Art. (4) Seminar, two hours. Emphasis on selected topic (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.

229A. History and Theory of Photography. (4) (Formerly numbered C272.) Seminar, three hours. Selected topics in photography history, criticism, and theory. S/U or letter grading.

229B. Dada, 1915 to 1923. (4) (Formerly numbered C249A.) Lecture, three hours; discussion, one hour. May be repeated for credit with consent of adviser. S/U or letter grading.

232C. Contemporary Art after World War II. (4) (Formerly numbered C212A.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

233A. American Art before Civil War. (4) (Formerly numbered C212A.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

233B. American Art in Gilded Age, 1860 to 1900. (4) (Formerly numbered C212B.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

233C. American Art, 1900 to 1945. (4) (Formerly numbered C212C.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

234A. American Art, 1900 to 1945. (4) (Formerly numbered C254A.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

235A. African Art, 1900 to 1963. (4) (Formerly numbered C252A.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

236. Topics in African American Art. (4) (Formerly numbered C250A.) Seminar, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

237. Native American Art. (4) (Formerly numbered C250B.) Seminar, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

239A. Maya Art and Architecture. (4) (Formerly numbered C250A.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

239B. Aztec Art and Architecture. (4) (Formerly numbered C250A.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

239C. Inca Art and Architecture. (4) (Formerly numbered C250A.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

240A. Selected Topics in Arts of Indigenous Americas. (4) (Formerly numbered C250A.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

240B. Art and Architecture of Indigenous Americans. (4) (Formerly numbered C250A.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

241. Colonial Latin American Art. (4) (Formerly numbered C251B.) Seminar, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

242A. Mexican Art in Modern Age. (4) (Formerly numbered C251B.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

242B. Latin American Art of 20th Century. (4) (Formerly numbered C251B.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

245A. Architecture and Urbanism in Africa. (4) (Formerly numbered C255B.) Seminar, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

245B. Contemporary Arts of Africa. (4) (Formerly numbered C255B.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

246. African Art. (4) (Formerly numbered C255B.) Seminar, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

247. Oceanic Art. (4) (Formerly numbered C255B.) Seminar, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

248A. Art and Material Culture, Neolithic to 21st BC. (4) (Formerly numbered C255B.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

248B. Art and Material Culture of Early Imperial China, 210 BC to AD 906. (4) (Formerly numbered C255B.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

248C. Art and Material Culture of Late Imperial China, 906 to 1911. (4) (Formerly numbered C255B.) Lecture, three hours. May be repeated twice for credit with consent of adviser. S/U or letter grading.

C248E. Art in Modern China. (4) (Formerly numbered C261E.) Lecture, three hours. Concentrated look at major schools and masters of Chinese art from turn of 20th century to present, with focus on interaction with foreign cultures and issues of self-identity, assimilation, modernity, tradition, and continuity. Consideration of recent developments in Chinese art in global context. Concurrently scheduled with course C148E. S/U or letter grading.


C248G. Gardens in Chinese Art and Culture. (4) Lecture, three hours. Overview of practice, theory, and representation of Chinese gardens in their historical, philosophical, artistic, social, and cultural contexts through literary writings, paintings, and aspects of material culture. Concurrently scheduled with course C148G. S/U or letter grading.

C249A. Selected Topics in Chinese Art. (4) (Formerly numbered C261EL.) Lecture, three hours. Variable topics on 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.

C250B. Problems in Postcolonial Criticism. (4) (Formerly numbered 260B.) Seminar, 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.

C250C. Fieldwork in Archaeology. (2 to 8) (Formerly numbered 265.) Fieldwork, to be arranged. Participation in archaeological excavations or other archaeological research under supervision of staff. May be repeated for credit with consent of adviser. S/U or letter grading.

C250D. Art and Empire. (4) (Formerly numbered C280DA.) Lecture, three hours. Examination of relationship between art and imperial ideologies and introduction to current issues in colonial studies and postcolonial criticism. Concurrently scheduled with course C160D. S/U or letter grading.

C250E. Art: Fakes, Forgeries, and Authenticity. (4) (Formerly numbered C203G.) Lecture, three hours. Examination of concepts of authenticity, originality, fakes, and forgeries in art. Overview of problems inherent in concept of authenticity in discussion 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 concern: fakes, authenticity, and status of art as essential component of production, study, and scientific examination of fakes. Nature of art connoisseurship described in many examples from Renaissance and early modern paintings and panel paintings, and in African and tropical African arts. Background of art restoration and art conservation discussed in relationship to authenticity and technical studies. Scientific tools that form basis for study of other kind of conservation 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 C172D. S/U or letter grading.


C251B. History of Korean Ceramics. (4) (Formerly numbered C242B.) 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 C125C. S/U or letter grading.

C252C. History of Korean Buddhist Art. (4) (Formerly numbered C242CC.) 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 C125D. S/U or letter grading.

C253A. Selected Topics in Korean Art. (4) (Formerly numbered C242DL.) Lecture, three hours. Variable topics in Korean art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C153. S/U or letter grading.

C253B. Selected Topics in Korean Art. (4) (Formerly numbered C243.) Lecture, three hours. Studies of Korean art under different art-historical perspectives, methods, and theories. Individual studies, with emphasis on professional 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) (Formerly numbered C257.) Lecture, three hours. Requisite: course 154A. Study in Indian sculpture and architecture. Concurrently scheduled with course C154C. S/U or letter grading.

C255A. Selected Topics in South and Southeast Asian Art. (4) Lecture, three hours. Topics in modern and contemporary South Asian art from 1900 to present. Letter grading.

C255A. Selected Topics in South and Southeast Asian Art. (4) Lecture, three hours. Variable topics in South and Southeast Asian art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C155. S/U or letter grading.

C255B. Indian Art. (4) (Formerly numbered C260A.) Lecture, two hours. Advanced studies in secular and religious artistic traditions of India. May be repeated for credit with consent of adviser. S/U or letter grading.

C258A. Selected Topics in Asian Arts and Architecture. (4) Lecture, three hours. Variable topics in Asian art and architecture that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C158A. S/U or letter grading.

C258B. Topics in Asian Archaeology. (4) (Formerly numbered C262A.) 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.

C258C. Fieldwork in Archaeology. (2 to 8) (Formerly numbered 265.) Fieldwork, to be arranged. Participation in archaeological excavations or other archaeological research under supervision of staff. May be repeated for credit with consent of adviser. S/U or letter grading.

C260A. Art and Empire. (4) (Formerly numbered C280DA.) Lecture, three hours. Examination of relationship between art and imperial ideologies and introduction to current issues in colonial studies and postcolonial criticism. Concurrently scheduled with course C160. 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) (Formerly numbered C203A.) Lecture, three hours; discussion, one hour (when scheduled). Introduction to museology as critical practice, with emphasis on history and theory of museums and curatorial and societal roles in current museum theory and practice. Concurrently scheduled with course C170A. S/U or letter grading.

C270B. Museum Studies Practicum. (2 to 4) (Formerly numbered C203CC.) 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) (Formerly numbered C203D.) 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. Concurrently scheduled with course C171. S/U or letter grading.

C272A. Preservation of Art. (4) (Formerly numbered C203E.) Lecture, three hours. Designed for anthropology, archaeology, and art history graduate students. Introduction to preservation of cultural heritage materials, including what should be preserved and why, as well as how decisions are made concerning the making process. Discussion of issues of preservation and restoration of these cultural heritage materials both in museum and outdoor environments. Materials and techniques used to make cultural heritage materials, in relation to preservation efforts needed to prevent decay and loss. Introduction to examples of conservation measures related to site 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 C172A. S/U or letter grading.

C272B. Restoration, Preservation, and Conservation. (4) (Formerly numbered 204.) Seminar, three hours. May not be repeated. S/U or letter grading.

C272C. Art: Fakes, Forgeries, and Authenticity. (4) (Formerly numbered C203G.) Lecture, three hours. Examination of concepts of authenticity, originality, fakes, and forgeries in art. Overview of problems inherent in concept of authenticity in discussion 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 concern: fakes, authenticity, and status of art as essential component of production, study, and scientific examination of fakes. Nature of art connoisseurship described in many examples from Renaissance and early modern paintings and panel paintings, and in African and tropical African arts. Background of art restoration and art conservation discussed in relationship to authenticity and technical studies. Scientific tools that form basis for study of other kind of conservation 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 C172D. S/U or letter grading.

C273. Studies in Materials and Production of Works. (4) 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, maintenance, preservation, and more. Hands-on demonstrations and workshops to demonstrate significance of choices that artists make in choice of materials. Processes of making that can impact final physical forms as well as aesthetic meanings 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.

C275. 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.

C276. Teaching Art History. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Designed 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, consisting of readings, discussions, and workshops related to selection of topics. May not be applied toward MA or PhD course requirements. S/U grading.

C278. Teaching with Technology. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Designed for graduate students. Introduction to technological support available to new departmental teaching assistants. Topics may include use of functions of teaching assistant archive, CCLE, MyUCLA, Gradebook, and TurnItIn and ways to efficiently use these tools. Introduction to lesson planning and ways
to establish 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 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. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated for credit with consent of advisor. S/U or letter grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. S/U grading.


Upper-Division Courses

100. Selected Topics in Arts. (4) Lecture, three to six hours; discussion and/or laboratory, two to three hours (when scheduled); outside study, six to nine hours. Selected topics in arts explored through variety of approaches that may include projects, readings, studio work, performance, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 8 units. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

ASIAN AMERICAN STUDIES

College of Letters and Science
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American Studies
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Victor Bascara, PhD, Chair

Professors
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C. Cindy Fan, PhD
Gilbert C. Gee, PhD
Grace Kyungwon Hong, PhD
Jerry Kang, JD (Korea Times-Hankook Ilbo Professor of Korean American Studies and Law)
Vinay Lai, PhD
Anna S. Lau, PhD
Jiing Ling, PhD
Purnima Mankekar, PhD
Valerie J. Matsumoto, PhD (George and Sakaye Aratani Professor of Japanese American Incarceration, Redress, and Community)
Vinit Mukhiya, PhD
Shu-mei Shih, PhD
Renee E. Tajima-Peña, PhD (UCLA Alumni and Friends of Japanese Ancestry Professor of Japanese American Studies)
David K. Yoo, PhD
Min Zhou, PhD (Walter and Shirley Wang Professor of U.S./China Relations and Communications)

Professors Emeriti
Lane Ryo Hirobayashi, PhD (George T. and Sakaye I. Aratani Professor Emeritus of Japanese American Incarceration, Redress, and Community)
Marjorie Kagawa-Singer, RN, PhD
Snehendu B. Kar, DrPH, MSc
Paul M. Ong, PhD

Associate Professors
Victor Bascara, PhD
Lucy M. Burns, PhD
Keith Lujan Camacho, PhD
Allee Moon, PhD
Thu-huong Nguyen-vo, PhD
Kyeoung Park, PhD
Thomas M. Philip, PhD
Robert Chao Romero, JD, PhD

Assistant Professor
Michelle L. Caswell, PhD

Scope and Objectives

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, abilities, 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, interpretative, 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...
Asian American Studies Minor

The Asian American Studies minor is designed for students who wish to gain understanding of and competence in Asian American Studies.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed two lower-division Asian American Studies courses, and file a petition with the undergraduate academic adviser, Asian American Studies Department, 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.

Required Upper-Division Courses (20 units):
A total of five upper-division courses as follows: one multidisciplinary approaches course selected from Asian American Studies 101 through 122A, 123, M163, M166, M166C, M167, 173A, 174A, 175A, 187C, 191C; one global/transnational perspectives course selected from 122A, 123, M163, M166, M166C, M167, 173A, 174A, 175A, 187C, 191C; and one local/cultural approaches course selected from 140SL, 141A, 141B, M143A, M168, 195; five Asian American Studies elective courses selected from 103 through 199; and one capstone project course selected from 185 or 186.

No more than 12 graded units of Asian American Studies courses and an overall grade-point average of 2.0 or better, and students must have an overall grade-point average of 2.0 or better.

Honors Program

Through the Asian American Studies honors program, Asian American Studies majors undertake a year-long thesis or its equivalent with the guidance and supervision of a faculty member. Successful completion of the departmental honors program is indicated on the transcript. For additional information about the departmental honors program, contact the undergraduate academic adviser.

Admission

The honors program is open to junior and senior Asian American Studies majors who have (1) 90 or more total units, (2) a grade-point average of 3.5 or better in upper-division Asian American Studies courses and an overall cumulative GPA of 3.0 or better, and (3) completed two lower-division Asian American Studies courses.

Requirements

Honors students must take the Asian American Studies 198A, 198B, and 198C sequence in which they write a thesis or its equivalent under the direction of a faculty member.
Asian American Studies

Lower-Division Courses

10W. History of Asian Americans. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Students with credit for course 10W. Multidisciplinary examination of history of Asians and Pacific Islanders in U.S. P/NP or letter grading.

10W. History of Asian Americans. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 10. Multidisciplinary examination of history of Asians and Pacific Islanders in U.S. Satisfies Writing II requirement. Letter grading.

118. Leadership and Student-Initiated Retention. (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 M186. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs 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. 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.

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. 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. Not open for credit to students with credit for course 30W. Multidisciplinary introduction to Asian American literature and cultural production, with examination of some combination of novels, short stories, poetry, drama, performance, film, visual art, music, and/or new media. P/NP or letter grading.

30W. Asian American Literature and Culture. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 30. Multidisciplinary introduction to Asian American literature and cultural production, with examination of some combination of novels, short stories, poetry, drama, performance, film, visual art, music, and/or new media. Satisfies Writing II requirement. Letter grading.


50. Asian American Women. (5) Lecture, three hours; discussion, one hour. Overview of history of feminist theory and intersection of gender, class, race/ethnicity from cross-cultural perspectives, with focus on Asian American women's lived experiences in U.S. Topics 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. 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. 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 student and instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in 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. Enrollment by consent 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. Scholarly and Creative Communication in Asian American Studies. (3) Lecture, three hours. Requisites: course 10 or 20, and either 10 or 20W and 20, or one additional course from 30, 30W, 40, or 50. Designed for advanced junior/senior Asian American Studies majors and minors. Examination of alternative modes of expression to effectively reach academic and nonacademic audiences, including written text, visual materials, and performance. Exploration of scholarly works by looking at how narratives are developed, ideas and values are framed, or knowledge is generated and transmitted, through either traditional or electronic mediums. Investigation of discursive and popular forms, stylistic patterns, and communicative practices. Themes and content vary by term. Independent research related to course objectives may be pursued with guidance from instructor. Sharing and critiquing of other student works in progress. P/NP or letter grading.

103. Social Science Research Methods. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Introduction to conducting social research on Asian Americans, providing experience in using some research methods and exercises in evaluating nature and quality of scientific research on Asian American issues. P/NP or letter grading.


104B. Internships in Asian Pacific Communities. (4) Fieldwork, eight hours minimum. Requisite: course 10A or another Asian American studies course (except 199). Integrates academic and empirical work by providing students with different public service and community work in Asian Pacific or other multicultural communities, and of bringing their ongoing internship experiences back to classroom. P/NP grading.

105. Historical Research Methods. (4) Seminar, three hours. Requisite: course 10. Introduction to methods used to locate and analyze source materials for research on Asian American history. Historians have used wide range of sources that may include archival materials, oral history, material culture, and more. P/NP or letter grading.

M108. Policy, Planning, and Community. (4) Same as Urban Planning M18. Three hours; field laboratory. Project-oriented methods course on conducting needs assessment in Asian American communities. Geographic information systems to be used to define problems and needs. Letter grading.

111. Asian Americans and War. (4) Lecture, three hours. Interdisciplinary examination of role that war has played in history and culture of Asian Americans, drawing on diverse set of materials ranging from Asian American literature, Hollywood movies, and wartime propaganda to political speeches, Supreme Court decisions, and protest culture, to evaluate relationships between Asian American communities and geopolitical conflicts throughout the contemporary period. P/NP or letter grading.

M112A. Historical Survey of Asian American Literature. (5) (Same as English M102A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of 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, interethnic dynamics, and social movement. Works by such authors as Edith Eaton, Younghill Kang, Carlos Esteban, Maxine Hong Kingston, Shoshana Johnson, Frank Chin, and Maxine Hong Kingston. P/NP or letter grading.

M112B. Contemporary Asian American Literary Issues and Criticism. (5) (Same as English M102B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Asian American literature either produced from or thematically reflecting post-1980 period. Issues include immigration, diaspora, generational conflict, appropriation of cultural traditions, ethnic/gender formation, and model minority and Orientalism, and meat versus rice, in study 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. Enforced requisite: 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 American Studies. (4) (Same as Sociology M101.) Lecture, three hours. Survey of major social, economic, and political issues and developments. P/NP or letter grading.

114. Asian American History. (4) (Same as History M101.) Lecture, three hours. History and civilization of Asian Americans, with emphasis on the cultural, social, and political experiences of Asian immigrants and their communities. P/NP or letter grading.


116. Asian American Social Movements. (4) (Same as Labor and Workforce Studies M116.) Lecture, three hours. Focus on the role of Asian American social movements in the larger context of contemporary labor issues in Asian and Pacific Islander communities, with emphasis on the struggle for change and self-empowerment of Asian American communities. P/NP or letter grading.

117. Asian American and Pacific Islander Labor Issues. (4) (Same as Labor and Workforce Studies M117.) Lecture, three hours. Examination of historical and contemporary labor issues in Asian and Pacific Islander communities, with emphasis on the role of Asian American labor movements in supporting the labor struggles of low-income immigrants and their communities. P/NP or letter grading.

118. Asian American Religious History. (4) Lecture, four hours. Examination of religion as a thematic thread within the context of Asian American history, including the role of religion in shaping the experiences of Asian Americans. P/NP or letter grading.


120. Asian American History through Lens. (4) Lecture, three hours. Exploration of documentary film, both as genre and as vehicle to present Asian American perspectives on history of Asian American individuals, communities, and cultures. P/NP or letter grading.


122A. Indigeneity, Empire, and Resistance in Pacific Islands. (4) Lecture, three hours. Introduction to indigenous and colonial histories of Pacific Islands. Discussion of film screenings, guest speakers, and assignments, with focus on issues of cultural survival, displacement, inequality, resistance, and political concepts. P/NP or letter grading.

122B. Gender and Film in Pacific. (4) Lecture, three hours. Focus on the role of gender in the representation of Asian American women in film. P/NP or letter grading.
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.

143B. Politics of Race, Ethnicity, Migration, and Multiculturalism in Hawai‘i. (4) Lecture, three hours; discussion. Problems of historical and contemporary experiences of various people in Hawai‘i. Investigation of historical, economic, and political contexts of migration and relations between indigenous people and existing racial and ethnic groups. P/NP or letter grading.

M143C. Ethnic Identity and Ethnic Relations in Hawai‘i. (4) (Same as Anthropology M168Q.) Lecture, three hours. Discussion of construction and expression of ethnic identity in various cultural forms and social contexts in Hawai‘i. Overview of theoretical approaches 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.

M160. Culture, Media, and Los Angeles. (6) (Same as American Studies M159P and Anthropology M144P, and Chicana and Chicano Studies M158.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.


M163. Worker Center Movement: Next Wave Organizing for Justice for Immigrant Workers. (4) (Formerly numbered M166C.) (Same as African American Studies M167, 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 multiethnic and multicultural campaigns for workplace and economic justice. Transnational cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

M164. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4) (Same as Gender Studies M164A.) Lecture, four hours. Study of various forms of violence done on women not only in and of themselves but as a result of systems of oppression, with focus on Filipinos, Vietnamese, Singaporeans, and South Asian cultures. Letter grading.

M165. Race, Gender, Class. (5) (Same as Comparative Literature M175.) Seminar, three hours. Theoretical and literary readings combined to explore three main aspects of social and cultural experience (race, gender, class) as separate but interconnected spheres affecting both minority and majority populations in U.S. Examination of these issues from comparative perspectives. P/NP or letter grading.

M166A. Immigrant Rights, Labor, and Higher Education. (4) (Same as Chicana and Chicano Studies M166B and Labor and Workplace Studies M166A.) Lecture, three hours; discussion, one hour. New immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of immigrant students in higher education. Not open to freshmen. Not available for graduate credit. P/NP or letter grading, and P/NP or letter grading.

M166B. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as Chicana and Chicano Studies M166B and Labor and Workplace Studies M166B.) Seminar, two hours. Requisite: course M166A. Expansion of research conducted by students in course M166A involving oral histories, research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented 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 requisites: courses M166A and M166B involving oral histories, research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented students. Designated around class project, where students work on showcasing all material collected throughout year. Letter grading.


168. Student-Initiated Retreat and Outreach Issues in Higher Education. (4) (Same as African American Studies M118, Asian American Studies M118, and Chicana and Chicano Studies M118.) Lecture, four hours; discussion, two hours in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLA as case. May be repeated twice for credit. Letter grading.

169. Constructing Race. (4) (Same as African American Studies M159P and Anthropology M144P.) Lecture, three hours. 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 popular culture, and race relations or letter grading.


171A. Critical Issues in U.S.-China Relations. (4) Lecture three hours. Not open to freshmen. Critical examination of U.S. involvement in China, Hong Kong, and Taiwan of historical, cultural, political, and socioeconomic factors that shape relations between China, Hong Kong, and Taiwan, and U.S. Exploration of impact of relationships in Pacific Rim and Chinese Americans and their communities. P/NP or letter grading.

171B. Critical Issues in U.S.-Japan Relations. (4) Lecture, three hours. Not open to freshmen. Critical examination of U.S.-Japan, including study of historical, cultural, political, and socioeconomic factors that shape relations between Japan and U.S. Examination of impact of relationships in Pacific Rim and Japanese Americans and their communities. P/NP or letter grading.

171C. Critical Issues in U.S.-Korea Relations. (4) Lecture, three hours. Not open to freshmen. Critical examination of U.S. involvement in Korea, including study of historical, cultural, and political factors that shape relations between Korea and U.S. Examination of impact of relationships in Pacific Rim and Korean Americans and their communities. P/NP or letter grading.

M171D. Critical Issues in U.S.-Philippine Relations. (4) (Same as History M144C.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: History 176C-D. Designed for juniors/seniors. Examination of complex interrelationship between U.S. colonialism, Philippine nationalism, history of Filipino Americans, and Philippine diaspora in 20th century. P/NP or letter grading.


M172A. Indian Identity in U.S. and Diaspora. (Same as History M171.) 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 diaspora forms such as bhangra rap and chutney music; relations between Indians and other racial and ethnic groups; Indian women as embodiment of Indian culture; diasporic identities. P/NP or letter grading.

172B. Gender in South Asian Communities at Home and Abroad. (4) Seminar, three hours. Examination of centrality of gender to histories and identity of men and women and their affiliations across multiple historical and geopolitical contexts. Focus on colonial South Asia, South Asian diasporas in U.K., South Asian Americans in U.S., and transnational South Asian public cultures. Theoretical approaches to study of South Asians in comparative frame and consideration of how transnational perspectives enable revisiting South Asian American experiences and to rethink relationships between Asian American studies, diaspora studies, and area studies. P/NP or letter grading.

M172C. Transnational Bollywood. (4) (Same as Communication M137.) Lecture, three hours. Study of how popular Bollywood films and the media shape 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 North America, U.K., and Africa. Examination of how complex relationships between Bollywood and transnational South Asian diasporas 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 M155.) Lecture, three hours; discussion, one hour. Knowledge of Vietnamese language required. Critical 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. P/NP or letter grading.

174A. Special Courses in Comparative Race, Ethnicity, Gender, and Sexuality. (4) Lecture, three hours; discussion, one hour (when scheduled). Limit to 10 lab/12 credit. Variable topics in selected issues on race, ethnicity, gender, and sexuality from comparative perspective. May be repeated for credit with topical change. P/NP or letter grading.

174B. Special Courses in Transnationalism and Diaspora. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in selected comparative and interna-
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tional 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, Gen-
der, and Sexuality. (4) Seminar, three to four hours. Limited to seniors. Variable topics in selected issues on race, ethnicity, gender, and sexuality from a comparative perspective. 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/se-

iors. Variable topics in selected comparative and in-
ternational issues pertaining to transnationalism and diasporas. 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 senior departmental majors and minors. Designed to serve as complement to service learning requirement for major and minor and may be used to fulfill cap-
stone requirement for major and minors. Students work as research teams, are matched with one or more community groups, and must complete minimum of 40 fieldwork hours. Responsibilities core-
formatively determined by instructor, students, and sponsoring organizations. Readings determined in consultation with instructor. Letter grading.

186. Capstone Independent Research. (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 coursework. May be repeated twice so they can con-
duct in-depth research or creative-expression project. Themes may vary by instructor and term. Students pursue independent work related to course theme with guidance from instructor, form learning groups, and critique other student work in progress. Letter grading.

187A. Special Courses in Research Methodolo-
gies. (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, economic development, social movement, politics, and public life. May be repeated for credit with topic change. P/NP or letter grading.

187C. Special Courses in Asian American Popula-
tions and Communities. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in historical and con-
temporary issues pertaining to different Asian-origin subgroups and their respective communities. 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 stu-
dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-
signed as adjunct to upper-division lecture course. Indi-

dividual study with lecture course instructor to ex-

plore topics in greater depth through supplementary 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. Topics in Research Methodologies. (4) Sem-
inari, three to four hours. Limited to juniors/seniors. Variable topics in multidisciplinary research methodolo-
gies in Asian American Studies. May be repeated for credit with topic change. P/NP or letter grading.

191B. Topics in Asian American Themes. (4) Sem-
inari, three to four hours. Limited to juniors/seniors. Variable topics in selected Asian American themes, including issues in cultural formation, religion, educa-
tion, social class, economic development, social movement, politics, and public life. May be repeated for credit with topic change. P/NP or letter grading.

191C. Topics in Asian American Populations and Communities. (4) Seminar, three to four hours. Lim-

ited to juniors/seniors. Variable topics in historical and con-
temporary issues pertaining to different Asian-origin subgroups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

M191F. Topics in Asian American Literature. (5) (Same as English M191NC.) Seminar, three or four hours. Enforced prerequisite: English Composition 3 or 3H. Variable specialized studies course in Asian American literature. Topics may include genres (auto-

biography, novel, poetry, short fiction, or drama); spe-
cific nationalities within Asian American community; themes of transnational migration; cross-cultural, in-
terdisciplinary, or intercultural negotiation; and gender and queer politics. Reading, discussion, and develop-
ment of culminating project. May be repeated for credit with topic or instructor change. P/NP or letter grading.

192. Undergraduate Practicum in Asian American Studies. (2 or 4) Seminar, two or four hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students in Asian Amer-

ican studies courses. Students assist in preparation of materials and development of innovative programs with guidance of faculty members in small course set-
tings. May not be applied toward departmental major or minor requirements. May be repeated for credit. P/NP grading.

195. Community or Corporate Internships in Asian American Studies. (3 to 4) Seminar, two to four hours; fieldwork, eight to 10 hours. Requisites: courses 10 or 10W, and 20. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet one-to-one with faculty members and develop periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

195CE. Comparative Approaches to Community and Corporate Internships. (4) M195CE, American Studies M195CE, American Indian Studies M195CE, Chicana and Chicano Studies M195CE, and Gender Studies M195CE.) Tutorial, one hour; field-
work, eight to 10 hours. Limited to juniors/seniors. In-
ternship in corporate, governmental, or nonprofit set-
ning coordinated through Center for Community Learning. Comparative study of race, gender, and in-
digeneity in relation to contemporary workplace dy-
namics. Students complete weekly written assign-
ments, attend biweekly meetings with graduate stu-
dent 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.

196. Research Apprenticeship in Asian American Studies. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for under-division students under guidance of faculty mentor to learn skills and tech-
iques. May not be applied toward departmental major or minor requirements. May be repeated for credit. Individual contract required. Letter grading.

197. Individual Studies in Asian American Studies. (2 to 4) Tutorial, three hours. Requisites: course 10 or 10W or 20 or comparable knowledge in Asian Amer-

ican studies, 3.0 grade-point average or better. Lim-

ited to juniors/seniors. Directed reading of scholar-
work or supervised research between student and faculty member. No original research or project ex-
pected, but 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. Honors Research in Asian American Stud-

ies. (4) Tutorial, three to four hours. Requisites: two courses from 10 (or 10W), 20, and 30 (or 30W) and one course from 104A through 1018, 187A, or 191A. Introduction to research techniques and applications of methodologies in study of Asian Pacific Is-
landers in U.S. Development of honors thesis or com-
prehensive research project under direct supervision of faculty member. May be repeated for credit. Indi-

dual contract required. Letter grading.

198B-198C. Honors Research in Asian American Studies. (4-4) Tutorial, three hours. Requisite: course 198A. Course 198B is requisite to 198C. Development and completion of honors research project under direct supervision of faculty member. May be repeated for credit. Individual con-
tract required. In Progress (198B) and letter (198C) grading.

199. Directed Research or Senior Project in Asian American Studies. (2 to 4) Tutorial, three hours. Preparation: 3.0 overall grade-point average. Requi-
sites: courses 10 (or 10W) and 20 or comparable knowledge in Asian American studies. Limited to ju-
niors/seniors. Supervised individual research or inves-
tigation under guidance of faculty mentor. Culmi-
nating research paper or project report required. May be repeated for maximum of 8 units. Individual con-
tract required. P/NP or letter grading.

Graduate Courses

200A. Critical Issues in Asian American Studies. (4) Seminar, three hours. Designed for graduate stu-
dents. Examination and development of critical ap-
prehension of research literature on Asians in America 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 appropri-
ateness 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 concerns. 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 criti-
cism from mid-1980s to present, with focus on ass-
sumptions, possibilities, and limitations of certain the-
oretical perspectives and positions that have become important in Asian American critical practice. S/U or letter grading.

203. Asian American Research Methods. (4) Sem-
inari, three hours. Introduction to empirical research methods, stressing uses and relevancy in research with ethnic minority populations. Review of character-
istics and logical processes of research and applica-
bilité of scientific and scholarly inquiry in advancing knowledge. S/U or letter grading.

M213. Asian-Latinos. (4) (Same as Chicana and Chi-
cano Studies M213.) Seminar, three hours. Limited to graduate students. Examination of historical and con-
temporary populations of Asian-Latinos in Latin America and in Mexico. U.S. Role of Asian-Latinos in U.S. society as research team, are matched with one or more students. Supervised individual research or inves-
tigation under guidance of faculty mentor. Culmi-
nating research paper or project report required. May be repeated for maximum of 8 units. Individual con-
tract required. P/NP or letter grading.
mentary, and historical readings, examination of how 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 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 Asia and Pacific. 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, cramming historical, and examine social issues related to diverse peoples, cultures, and communities. Viewing of films and interactive media for critique and discussion with special emphasis in use of digital video technology, and group and individual video projects. Concurrently scheduled with course C142A. S/U or letter grading.

C242B. 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 approach 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, 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 M274) 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. S/U or letter grading.


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 American 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. Preparatory education. 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. Unit credit may be applied toward full-time equivalence but not toward 11-course requirement for MA. May be repeated for credit. S/U grading.

490. Writing Workshop for Graduate Students. (2) Lecture, one hour; discussion, one hour. Practice in writing reports, grant proposals, abstracts, theses, and article-length research papers. Analyzing rhetorical and stylistic features of essays in various Asian American journals helps students improve both their prose style and editorial abilities. Four units may be applied toward MA degree requirements. May be repeated once for credit. S/U grading.

495. Supervised Teaching of Asian American Studies. (4) Seminar, three hours. Preparation: apprentice personnel appointment as teaching assistant in Asian American studies. Designed for graduate students. Required of all new teaching assistants. Special course for teaching assistants designed to deal with problems and techniques for teaching introductory Asian American studies courses. Unit credit may be applied toward full-time equivalence but not toward course requirements for MA. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U or letter grading.

597. Research for and Preparation of MA Capstone. (2 to 8) Tutorial, three hours. Limited to graduate students. Preparation and research for MA capstone. May be repeated for credit. S/U grading.


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**Asian Languages and Cultures**

**College of Letters and Science**

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Seiji M. Lippit, PhD, Chair

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**Lecturer SOE**

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**Lecturers**

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Asako H. Takakura, EdD
Juliana Wijaya, PhD
Yu-Yen 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, Korea, as well as South and Southeast Asia. The department offers training in many specialized fields such as archaeology, film, folklore, history, linguistics, literature, mythology, religious studies, and cultural studies. Courses prepare students for careers in business, government service, international relations, journalism, law, publishing, teaching, and academic professions.

Undergraduate majors earn a Bachelor of Arts degree. The graduate program offers PhD degrees.

For undergraduates, the department offers majors that combine language study with courses taught in English that examine the rich cultural heritage of China, Japan, and Korea, as well as South and Southeast Asia. The majors also offer opportunities for education.
abroad in an Asian country. The language courses aim to develop the four skills of speaking, aural comprehension, reading, and writing in a balanced and mutually supportive manner. The lecture and seminar courses aim to develop critical thinking and writing skills through in-depth study of a culture within a broader historical and comparative context.

Undergraduate majors who wish to pursue graduate degrees are encouraged to apply for admission to the departmental honors program.

At the graduate level, the department offers highly selective PhD degree programs that train research scholars for academic careers in various fields of Asian culture, including literature, linguistics, film, religion, and history.

Courses for Nonmajors
The department offers many courses in which knowledge of Asian languages is not required. A current list is available on the Registrar’s course descriptions web page.

Undergraduate Study
The department offers one major in the study of Asian languages and linguistics—BA in Asian Languages and Linguistics, two majors in the study of Asian cultures—BA in Asian Humanities and BA in Asian Religions, and three majors in Asian literatures and cultures—BA in Chinese, BA in Japanese, and BA in Korean. Each course in the majors must be taken for a letter grade.

The department also offers two minors—Asian Humanities minor and Asian Languages minor. Each course in the minors must be taken for a letter grade.

Students considering a major or minor in the department should consult with the departmental undergraduate adviser as soon as possible in their university career, but in no case later than the point at which they are about to begin taking upper-division courses. Students should select courses to fulfill major or minor requirements in consultation with the undergraduate adviser. The approved list of courses for each category of major or minor requirements is available in the department office (290 Royce Hall) and on its website.

At least 24 upper-division units required for the majors must be completed successfully while in residence at UCLA.

Placement in Language Courses
Students are not placed in Chinese, Filipino, Hindi-Urdu, Indonesian, Japanese, Korean, Thai, and Vietnamese language courses automatically according to their years of previous study. Students with any prior knowledge or study of an Asian language who wish to take courses in that language at UCLA are required to take the appropriate departmental language placement examination (see the Schedule of Classes or department website for more information). The examination determines which course is most appropriate for the student’s current level of proficiency. Students who have obtained college credit for Asian language courses may not repeat those same courses for credit. Prospective majors who place out of the upper-division modern language requirement are expected to substitute an equivalent number of other units to be selected in consultation with the departmental undergraduate adviser.

Language Acquisition Courses
No credit is allowed for completing a less advanced course after successful completion of a more advanced Asian language course with focus on conversation, grammar, and/or composition.

Asian Humanities BA
Learning Outcomes
The Asian Humanities major has the following learning outcomes:
- Identification of major elements of cultures in Asia, with particular attention to 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, 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) within the department.

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.

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: 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 Asia 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) within the department; and Linguistics 20.
The Major
Required: Eleven courses as follows: (1) five upper-division language courses in one Asian language offered by the department, or three upper-division language courses in one Asian language offered by the department and two upper-division language courses in a different Asian language offered by the department, (2) Asian 100 and 104, (3) two Asian linguistics courses selected from Asian CM124, Chinese 103, C120, Japanese M120, CM122, CM123, CM127, and (4) two upper-division electives within the department or from the Linguistics Department.

Asian Religions BA
Learning Outcomes
The Asian Religions major has the following learning outcomes:

• Appreciation of the central place of religion in Asian cultures, with focus on chosen region of expertise and tradition of focus
• Understanding of the crucial role of language and written documents in the development of religious beliefs and practices
• Clear and effective writing on topics in the field, in a way that is sensitive to the complex dynamics and transformations of religion across Asian cultural boundaries
• Formulation of research projects using primary and secondary source materials, making effective and critical use of primary and secondary source materials
• Demonstrated working knowledge of one Asian language at an intermediate level
• Demonstrated basic exposure to the Buddhist argot of one Asian language

Preparation for the Major
Required: Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one introduction to religions course from Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, or Southeast Asian M60.

Transfer Students
Transfer applicants to the Asian Religions major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese and one Chinese civilization course.

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 100S, 100R, 101A and 101B and 101C or 101S, 103A, 103B, 104, 105A, 105B, 110A, 110B, M120, CM123, 130A, 130B, 140A, 140B, 140C, C149, 165, C180, (2) one literature course selected from C150, 151, 154, M156, 157, C159, 170, 172, 174, or 191A, (3) three elective courses on Japan selected from C112, CM122, CM123, CM127, 155, CM160, 161, 165, C171, 175, C182, 191B, 191C, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department but outside Japan.

Korean BA
Learning Outcomes
The Korean major has the following learning outcomes:

• Demonstrated advanced knowledge of written and spoken Korean
• Broad knowledge of Korean history, literature, thoughts, and religions from the ancient to the modern era
• Engagement in critical comparisons of historical and other narratives
• Relation of historical and cultural developments in Korea with other countries in East Asia and beyond
• Discussion of the scholarly literature about a topic in an area of expertise

• 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, M60, M60W, 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 100S, 100R, 101A and 101B and 101C or 101S, 103A, 103B, 104, 105A, 105B, 110A, 110B, M120, CM123, 130A, 130B, 140A, 140B, 140C, C149, 165, C180, (2) one literature course selected from C150, 151, 154, M156, 157, C159, 170, 172, 174, or 191A, (3) three elective courses on Japan selected from C112, CM122, CM123, CM127, 155, CM160, 161, 165, C171, 175, C182, 191B, 191C, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department but outside Japan.

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 10 or equivalent, and 50 or 70 or 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 either modern Chinese (Chinese 100A and 100B and 100C or 100S, 100R, 101A and 101B and 101C or 101S, 103A, 103B, 104, 105A, 105B, 110A, 110B, M120, CM123, 130A, 130B, 140A, 140B, 140C, C149, 165, C180, (2) one literature course selected from C150, 151, 154, M156, 157, C159, 170, 172, 174, or 191A, (3) three elective courses on Japan selected from C112, CM122, CM123, CM127, 155, CM160, 161, 165, C171, 175, C182, 191B, 191C, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department but outside Japan.

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Preparation for the Major

Required: Korean 6 or 6A or 10 or equivalent, and 50 or M60 or 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, 165, 176, 178, (2) one literature course selected from 130A, 130B, 150, or C151, (3) three elective courses on Korea selected from CM127, 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):

Two courses from Asian 30, M60, M60W, M61, Chinese 50, M60, Japanese 50, 70, Korean 50, 60, South Asian 60, Southeast Asian 60.

Required Upper-Division Courses (20 units):

Five courses in the department concerning Asian culture (e.g., film, folklore, history, linguistics, literature, mythology, religious studies). A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units must be taken in residence at UCLA.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Asian Languages and Cultures offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Asian Languages and Cultures and a Master of Arts (MA) degree in Teaching Asian Languages.

Asian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M20. Visible Language: Study of Writing. (5) Same as Indo-European Studies M20, Near Eastern Languages M20, Slavic M20, and Southeast Asian M20.) Lecture, three hours; discussion, one hour. Consideration of concrete means of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 4th millennium BC. While literate civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of corresponding earliest developments, their antiquity
and, in cases of China and Mesoamerica, their evident isolation mark these centers as foci of independent developments in writing. Basic characteristics of early scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semi- lographic systems 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 requisites: 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. 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.

155. Buddhism, Film, and Media. (4) Lecture, three hours; discussion, one hour (or other activities and led by lecture course instructor). Recommended prerequisite: course M60 (or Religion M60A) or M60W (or Religion M60W). Examination of issues related to Buddhism in globalizing world, with focus on changing and diverse presentations of Buddhism through print, and new media. P/NP or letter grading.


162. Buddhism Mediation Traditions. (4) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. Survey of theory and practice of mediation in Theravada and Zen schools. Topics include various typologies of meditation, symbiotic relationship between praxis and soteriology, and processes by which doctrinal innovation prompts changes in mediative praxis. Letter grading.

163. Buddhism across Boundaries. (4) Lecture, two hours; discussion, one hour. Recommended preparation: prior course on Buddhism or traditional Asian religions. Knowledge of Asian languages not required. Investigation of various themes in development of Buddhism traditions across historical periods as well as national and cultural boundaries, including issues of praxis, politics, and translation. Letter grading.

164. Buddhism and Early Religious History of Pakistan, Afghanistan, and Central Asia: Introduction. (4) Lecture, three hours. Knowledge of Asian languages not required. Survey of regions and religions of Central Asia, especially Buddhism in Afghanistan and Pakistan. Topics include archaeological, art historical, and linguistic approaches to history of religions. Letter grading. May be applied toward honors credit for eligible students.

CMS24. Teaching and Learning of Heritage Language Pedagogy. (4) Seminar, three hours. Investigation of many ways in which heritage language learners (HLLs) and heritage language (HL) instruction differ from conventional HL instruction. Readings and discussion on such topics as definitions of HLL and HL; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs; particular HL groups most represented among UCLA students; institutional and instructor attitudes toward HLLs; impact of student motivation and expectations on HL curriculum approaches; similarities and differences between HLs and foreign language learners (FLs) regarding teaching methods and materials; diagnostic testing and needs analysis; use of audio/visual resources for literacy instruction; optimization of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM252, 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 foodways change 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 and their adaptation to incorporate additional information on South and 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 languages not required. Readings from variety of Buddhist literature of Indic and non-Indic origin, with emphasis on key Buddhist themes and critical issues in recovering interpretations of Asian religious texts. Letter grading.
201. Proseminar: Approaches to Buddhist Studies. (4) Seminar, three hours. Designed for graduate students in Buddhist studies. Introduction to history of field, bibliography, relations with other disciplines, and current issues and research trends. S/U or letter grading.


203. Variable Topics in East Asian Linguistics. (4) Seminar, three hours. Advanced course that explores topics in East Asian linguistics through critical reading of current research on Asian languages and in-depth analysis of linguistic data. Topics include linguistic structure, communicative function, pragmatics, language, society, and culture, and language change. May be repeated for credit. S/U or letter grading.

204A-204B. Issues and Practices in Teaching Asian Languages. (4–4) Lecture, three hours. Course 204A is enforced requisite to 204B. Critical reading and discussion of theoretical and practical issues in teaching Asian languages (chiefly Chinese, Japanese, Korean) as second languages, with focus on second language acquisition theories and best practices as related to teacher development. In Progress (204A) and S/U or letter (204B) grading.

205. Variable Topics in East Asian Culture and History. (4) Seminar, three hours. Selected topics in East Asian culture and history, with focus on China, Japan, and Korea. May be repeated for credit with topics change. S/U or letter grading.

210. Proseminar: Cultural and Comparative Studies. (4) Seminar, three hours. Designed for graduate students. Introduction to topics relevant to comparative study of East Asian cultures in modern period. Readings include Western theoretical works balanced with texts taking congruent approaches to East Asian topics. S/U or letter grading.


216. Seminar: History and Asia. (4) Seminar, three hours. Designed for graduate students. Readings and discussion of major historiographical trends, with focus on how they have been applied to Asia. Topics include: East Asian history; East Asian macrohistoriography; gender, space, historical memory, postcolonial histories, subaltern, and modernity and Asia. S/U or letter grading.

220A-220B. Seminars: Topics in Cultural Studies. (4–4) Seminar, three hours. Complements course 210. Further investigation of methodology and materials of cultural studies 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 exiled literature, discourses of 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.

224. Teaching and Learning of Heritage Languages. (4) Same as Near Eastern Languages CM224 and Slavic CM214.) Lecture, three hours. Consideration of language and culture in heritage language learners (HL) and heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLLs and HLLs; linguistic, demographic, socio-linguistic, and sociocultural profiles of HLLs, particularly HLL 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 for mixed HLL and FL classes. Action research component included. Concurrently scheduled with course CM214. 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. 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 (230A) and letter (240B) 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.

243. Translation Workshop: East Asian Texts. (2) Seminar, two hours. Requisite: Chinese 200A or Japanese 200A. Three years of Asian language (either Chinese or Japanese) as second language, one year of any East Asian language, and cultural studies in connection with specific topics selected by instructor. Readings from both Western and Eastern theorists; issues of translation, comparison, and categorization. In Progress (230A) and letter (230B) grading.

245A-245B. Seminars: Position of Modernity in East Asian Literature. (4–4) Seminar, three hours. Preparation: at least five years of any East Asian language. Designed for graduate students. Course 245A concerned with conceptual architecture and archaeology of modernity, with readings largely from European sources. In-class debate probes relevance of these readings for work as Asianists. Focus on Asian writings in course 245B. In Progress (245A) and letter (245B) grading.

255. Topics in Southeast Asian Literature and/or Cinema. (4) Seminar, three hours. Knowledge of one Southeast Asian language recommended but not required. Theoretical concerns raised by works from Southeast Asia, one Southeast Asian nation, and/or Southeast Asian diasporas. 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 grading.

256A-256B. Seminars: Selected Topics in Buddhist Studies. (4–4) Seminar, three hours. Coverage varies. May be repeated for credit. In Progress (256A) and letter (256B) 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.

270. 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 approaches. Readings of primary and secondary sources of modern scholarship. Concurrently scheduled with course C170, Letter grading.

281A-281B. Field Methods for Study of East Asian Oral Traditions. (4–4) Seminar, three hours. Description of methods of collecting and documenting oral tradition as text, performance, and sociocultural event, providing hands-on experience in fieldwork and archiving methods. Consideration of approaches to transcriptions and transcription and verbalization to audio and video presentations. In Progress (281A) and S/U or letter (281B) grading.
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.

293. Graduate Student Colloquium. (4) Research group meeting, three hours. Designed to provide graduate students with opportunity to present their research to other students and faculty members. S/U grading.

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

299. Independent Study. (2 to 6) Tutorial, to be arranged. Designed for graduate students. Guided research and writing of research paper. May be repeated, but only 4 units may be applied toward MA degree. May not be applied toward PhD degree. S/U or letter grading.

301. Teaching East Asian Language as Foreign Language. (4) Lecture, four hours. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty instructor responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. 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 methodology, developing course materials, and testing. 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.

498E. 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.

6A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, two hours. Requisite: course 5A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.

8. Elementary Chinese: Intensive. (15) Lecture, 10 hours; discussion, two hours. Intended for students who already have some listening and speaking skills in Mandarin and have some knowledge of idiomatic expressions, and both traditional and simplified characters. 5/P or letter grading.

4A. 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. Intermediate Modern Chinese. (5) Lecture, three hours; discussion, two hours. Requisite: course 4 with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 4. P/NP or letter grading.

5A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, two hours. Requisite: course 4A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 4A. P/NP or letter grading.


6. Intermediate Modern Chinese. (5) Lecture, three hours; discussion, two hours. Requisite: course 5 with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.

6A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, two hours. Requisite: course 5A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 5A. P/NP or letter grading.

6C. Mandarin for Cantonese Speakers. (5) Lecture, four hours. Enforced preparation: course 5C or Chinese placement test. Designed for students who are Cantonese speakers and familiar with Chinese characters and who need to improve their pronunciation of standard Mandarin dialect. Completion of course 6C is equivalent to completion of course 6. P/NP or letter grading.

8A. Intermediate Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Requisite: course 7A 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 7A. P/NP or letter grading.

8B. Intermediate Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Requisite: course 7B 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 7B. P/NP or letter grading.

8C. Chinese Oral Language Practice. (5) Lecture, two hours; discussion, two hours. Requisite: course 8A 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 8A. P/NP or letter grading.

9A. Advanced Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Requisite: course 9A 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 9A. P/NP or letter grading.
10. Intermediate Modern Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Recommended preparation: course 3, 3A, or 8, or Chinese placement test or courses equivalent to elementary-level Chinese. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive course equivalent to courses 4, 5, and 6. Designed to strengthen communicative skills of listening, speaking, reading, and writing through dramatized reviews, knowledge of idiomatic expressions, and both traditional and simplified characters. Completion of course 4 or 5 is a prerequisite. 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.

30. Chinese Language, Society, and Culture. (4) Lecture, two hours; discussion, two hours. Recommended preparation: one to two years of college-level Chinese, or an equivalent level of language and cultural understanding. Introduction to most important aspects of Chinese culture, language, and society. Discussion of fundamental role that language plays in Chinese social life and cultural practices while simultaneously exploring how social, religious, and cultural impact ways in which Chinese language is organized. Main focus on language and thought patterns, gender and language, language and politics, language and commerce, language and art, and language and globalization. P/NP or letter grading.

40. Popular Culture in Modern Chinese Societies. (5) Lecture, three hours; discussion, one hour. Examination of modern Chinese popular culture in China, Taiwan, Hong Kong, and Chinese communities overseas. From fiction to film, music to MTV, and cartoons to karaoke, probing of popular as it has manifested itself in China over the course of its development over last century. P/NP or letter grading.

50. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Not open for credit 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 Chinese society, issues of ethnicity, Chinese language and philosophy, and early scientific and technological innovation. P/NP or letter grading.

50W. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 50W. Knowledge of Chinese not required. Introduction to most important aspects of Chinese culture. Topics include early Chinese civilization, historical development of Chinese society, issues of ethnicity, Chinese language and philosophy, and early scientific and technological innovation. Satisfies Writing II requirement. Letter grading.

M60. Introduction to Chinese Religions. (5) Same as Religion M60B. Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course M60W. Knowledge of Chinese not required. General survey of religious life in China, with emphasis on the various practices over time, and themes common to Buddhism, Daoism, and Confucianism. P/NP or letter grading.

M60W. Introduction to Chinese Religions. (5) Same as Religion M60B. Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course M60W. Knowledge of Chinese not required. General survey of religious life in China, with emphasis on the various practices over time, and themes common to Buddhism, Daoism, and Confucianism. P/NP or 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 36. 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, 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.

89. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course 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.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Chinese Culture. (5) Lecture, three hours. Knowledge of Chinese language or culture not required. Course may cover many different aspects of Chinese culture. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must have demonstrated 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 Modern Chinese. (4–5) Lecture, three hours; discussion, two hours. Enforced requisite: course 6 or 10 with grade of C or better or Chinese placement test. Course 100A with grade of C or better or Chinese placement test is enforced requisite to 100B; course 100B with grade of C or better or Chinese placement test is enforced requisite to 100C. Third-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Materials selected from contemporary Chinese publications, with emphasis on social sciences. Texts analyzed for their linguistic features and social and cultural background. Readings, compositions, informal debates on topical issues, and oral presentations. Not open for credit to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive course equivalent to courses 100A, 100B, and 100C. Materials selected from contemporary Chinese publications. Course may cover many different aspects of Chinese culture. 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 (100C) and letter grading (100A, 100B).

102A. Advanced Chinese for International Business. (4) Lecture, two hours; discussion, two hours. Recommended preparation: one to two years of college-level Chinese. Not open to native speakers. Designed to improve student language skills in service of business practice and ground language learning in authentic social, cultural, and professional contexts of culture, society, and business. Designed as adjunct to lower-division lecture course. In-depth analysis of business communication, social etiquettes in business conduct, Chinese economic and business climate, business law and regulations, resources and environment, and business case studies. May be taken independently for credit. Letter grading.

102B. Advanced Chinese for International Business. (4) Lecture, two hours; discussion, two hours. Recommended preparation: one to two years of college-level Chinese. Not open to native speakers. Designed to improve student language skills in service of business practice and ground language learning in authentic social, cultural, and professional contexts of culture, society, and business. Designed as adjunct to lower-division lecture course. In-depth analysis of business communication, social etiquettes in business conduct, Chinese economic and business climate, business law and regulations, resources and environment, and business case studies. May be taken independently for credit. Letter grading.

102. Advanced Modern Chinese: Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 6 or 10 with grade of C or better or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Advanced course equivalent to courses 100A, 100B, and 100C. Materials selected from contemporary Chinese publications. Course may cover many different aspects of Chinese culture. 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.
verbal and non-verbal linguistic devices. Major coverage includes language use as reflected in various types of media: film, television, Internet, advertisement, etc. May be repeated for credit. P/NP or letter grading.

C107A-C107B. 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 specific academic and professional subject areas for students who have 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 C207A-C207B. P/NP or letter grading.

108FL. Special Readings in Chinese (2) Seminar, two hours. Enforced requisite: course 100C or 100I or Chinese placement test. Students must be concurrently enrolled in affiliated main course. Additional work in Chinese to augment assigned work in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.

109. Advanced Tutorial Instruction in Chinese. (2) Tutorial, two hours. Requisite: course 100C or Chinese placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Chinese. May be repeated for credit. P/NP or letter grading.

110A-110B-110C. Introduction to Classical Chinese. (4–4–4) Lecture, three hours; discussion, one hour. Enforced requisite: course 3 or Chinese placement test. Course 110A is an enforced requisite to 110B, which is an enforced requisite to 110C. Grammar and readings in selected premodern texts. P/NP or letter grading.

C120. 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 and its reform, regional differences, major Chinese dialects, terminology, language in society and in cultural practices. Concurrently scheduled with course C240. Letter grading.

130A-130B. Readings in Modern Chinese Literature. (4–4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100I or Chinese placement test. Readings and discussion of works of modern Chinese literature. Each course may be taken independently for credit. Letter grading.

131. World Sinophone Literature: Theories and Texts. (4) Lecture, three hours; discussion, one hour. Readings in original language. Exploration of Sinophone as analytic category for literature written in Sinic languages. Theories of Sinophone and literary texts from Taiwan, Hong Kong, Malaysia, China, and elsewhere. Letter grading.

135. Chinese-Language Film and Culture. (4) Lecture, two hours; discussion, one hour; film viewing, three hours. Enforced requisite: course 100C or 100I or Chinese placement test. Viewing and discussion of Chinese films, along with relevant readings in Chinese. Letter grading.


139. Gardens in China. (4) Lecture, three hours; discussion, one hour. Recommended preparation: course 50. Interdisciplinary survey of historical and literary gardens in China, with focus on English translations of texts 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 Chinese-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 translation work. May include interpretation segment, designed to improve interpretation skills. Concurrently scheduled with course C244 or letter grading.

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

C150B. Chinese Literature in Translation: Traditional Narrative and Culture. (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 and social implications. Explores a range 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 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 poetics of Chinese postmodernism, nativism, feminism, mass culture, and media. Letter grading.

M153. Chinese Immigrant Literature and Film. (4) (Same as Asian American Studies M153B and Comparative Literature M153B.) Lecture, two hours; discussion, one hour. Knowledge of Chinese not required. In-depth look at Chinese immigrant experience by reading literature and watching films. Theories of identity, race, and power to inform thinking and discussion of relevant issues. P/NP or letter grading.

154. Introduction to Chinese Cinema. (4) Lecture, two hours; discussion, one hour; film viewing, three hours. Knowledge of Chinese not required. History of Chinese-language cinemas, with emphasis on mainland China. Examination of film style and aesthetics, as well as contexts of industry, economics, politics, culture, and society. May not be repeated for credit. Letter grading.

155. Topics in Chinese Cinema. (4) Lecture, two hours; discussion, one hour; film viewing, three hours. Knowledge of Chinese not required. Study of Chinese films, Hong Kong, Taiwan, and Chinese Diaspora. Examination of aesthetics, genres, directors and stars, other arts and media, and cultural and political histories. May be taken for credit with topic change. P/NP or letter grading.

C156. Variable Topics in Culture and Society in Taiwan. (4) Lecture, three hours; discussion, one hour. Designed for seniors. Knowledge of Chinese not required. Examination of relationship between art (art, literature, film) and society in Taiwan. Reading, audio and visual material, discussion, 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.


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 taken from translated Indian sutras, indigenous exegetical materials, Chinese apocryphal scriptures, and Ch'an writings. Problems in translation from Indo-European languages into Chinese; evolution of Chinese Buddhist terminology. Coverage varies. May be taken 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 Zhou through early Han periods (circa 1000 to 1000 BCE), with focus on invention of Confucian tradition (including Five Classics) and on defenses of that tradition against challenges from Moists, Mohists, 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.

175SL. Community-Based Introduction to Chinese Thought. (4) Seminar, three hours; fieldwork, two hours. Knowledge of Chinese not required. Community-based survey of Chinese thought as represented in texts of Zhou through early Han periods (circa 1000 to 1000 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, 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 reinterpret 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 focus on examples presented in early texts, later evolutions in dramatic and fictional works, and evidence from visual arts. Letter grading.

182. Archaeology 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 Asiatic trade network in response to early global trade. Investigation based on anthropological data, field movement from kilns around Chinese trading ports to shipwrecks and consumer societies in Southeast Asia and colonial Americas. As one of most important commodities of early global trade, porcelain production and trade with international piracy in traditional historiography presents new angle for understanding dynamics of early global trade and industries. Letter grading.

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penal systems of China have been represented in premodern China from multiple perspectives: legal and by whom? What happens if justice is not carried straightforward or simple processes. What is crime?

187. Chinese Etymology and Calligraphy. (4) Coverage of (1) development of Chinese writing system from pottery inscriptions 6,000 years ago to modern simplified forms and studies of six scripts principles that were used to form 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. Examination of selected topics and issues. May be repeated for credit with consent of instructor. Letter grading.

188. Archaeology in China. (4) Archaeological and historical, anthropological, and archaeological materials, introduction to how Chinese have been engaging themselves in fields of food eating and love making. 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 academic coursework. May be repeated for credit for eligible students. Honors content noted on transcript. P/NP or letter grading.


191. 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.

192. Topics in Chinese Poetry. (4) Seminar, three hours. Selected readings from classical poetic tradition, with focus on individual poets, themes, or other critical issues. May be repeated for credit. Letter grading.

200. Proseminar: Modern Chinese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of modern Chinese literature, with focus on research tools in making research. Letter grading.

200A. Research Methods in Chinese. (4) Seminar, three hours. Requisite: course 110C. Lectures and discussion designed to develop basic skills in using traditional Chinese research materials. Topics include classical dictionaries; sinological indices; bibliographical, biographical, and geographical sources; encyclopedias; anthologies; rare editions; illustrated matters and calligraphy. Letter grading.

200B. Proseminar: Modern Chinese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of modern Chinese literature, with focus on research tools in making research. Letter grading.


211A-211B. Various Topics in Modern Chinese Literature. (4) Seminar, three hours. Exploration of selected topics and issues in Sinophone literature, literature written in Sinitic languages by ethnic minority writers in China, and literature written by those living outside China across world, especially Hong Kong, Taiwan, Singapore, and the U.S. S/U or letter 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.

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 literature and cultural studies. Specific topics vary from year to year. In Progress (220A) and letter (220B) grading.

224A-224B. Seminars: Selected Topics in Chinese Linguistics. (4–4) Seminars, three hours. Critical reading and discussion of selected topics in Chinese functional linguistics (discourse and grammar, corpus linguistics, sociolinguistics, language change). May be repeated for credit with consent of instructor. In Progress (224A) and letter (224B) grading.


226A. Seminar: Topics in Chinese Applied Linguistics. (4) Seminar, three hours. Critical reading and discussion of selected topics in Chinese applied linguistics, focusing on Chinese as a second-language acquisition theories and practices. May be repeated for credit with consent of instructor. S/U or letter grading.

227. Travel Writing in Premodern China. (4) Lecture, three hours; discussion, one hour. Preparation: course 101B or Chinese placement examination. Seminar intended for graduate students in 20th-century Chinese literature, emphasizing fiction. Discussion of individual research projects. May be repeated for credit. In Progress (224A) and letter (225B) grading.

238. Variable Topics Research Seminars: Classical China. (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, marriage, and mourning in Zhou royal court, with discussion of topics in recent cultural semiotics and anthropology. In Progress (241A) and letter (241B) grading.

241A-241B. Heaven, Earth, and Monarchy in Anci- ent China. (4–4) Seminar, three hours. Preparation: reading knowledge of classical Chinese. Close reading of chapters from Han dynasty collection of writings on forms of music, social interaction, education, marriage, and mourning in Zhou royal court, with discussion of topics in recent cultural semiotics and anthropology. In Progress (241A) and letter (241B) grading.

242A. Introduction to Chinese Linguistics. (4) Lecture, three hours; discussion, one hour. Recommended preparation: course 101B or Chinese placement examination. Seminar intended for two to three years college-level Chinese. Introduction to Chinese sound system, writing system and its reform, regional differences, major structural features, language in society and in cultural practices. Concurrently scheduled with course 120. Letter grading.


244. Translation Workshop: Modern Chinese Texts. (4) Lecture, three hours; discussion, one hour. Preparation: bilingual competence in English and Chinese. Workshop on Chinese-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 translation work. May include interpretation segment, designed to improve interpretation skills. Concurrently scheduled with course C144. S/U or letter grading.

245A. Seminars: Traditions, Ching Narrative and Drama. (4–4) Seminar, three hours. Preparation: reading knowledge of colloquial and literary Chinese. Chinese seminars alternate yearly between traditional narrative and drama, with emphasis on generic, hermeneutic, and aesthetic approaches. Topics of narrative selected from genres through Ch'ing periods. Topics in drama selected from ts'ao-chü and ts'an-yü. May be repeated for credit with consent of instructor. In Progress (245A) and letter (245B) grading.

250A. Lyrical 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: Traditional Narrative and Fiction. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Examination of formation and development of Chinese narratives from Tang to Ch'ing periods (7th–18th centuries). Readings from biographical writings, fiction, drama, legal cases, etc., with emphasis on different narrative conventions and their assimilation of history and fiction. 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.

256A-256B. 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, audio and visual material, discussion, and various 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) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (265A) and letter (265B) grading.

267. 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 that tradition against challenges from Mohists, Taoists, and other groups of thinkers. Concurrently scheduled with course C175. Letter grading.

269A-269B. 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 to most important archaeological finds, with emphasis on studies of Xia and Shang cultures and Xian and Shang dynasties. May be repeated for credit. In Progress (269A) and letter (269B) grading.

271. 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 of early China used to interpret correctly 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 China. (4) Seminar, three hours. Selected topics in premodern Chinese literature, history, or religion, with emphasis on textual readings and independent research. S/U for letter grading.

297B. Seminar: Research Topics in Modern Chinese and Sinoophone Culture. (4) Seminar, three hours. Selected topics in modern Chinese and Sino-phone 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 grade.

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 grade.

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 grade.

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. 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 topics discovered in 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 grade.

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 have completed 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. Advanced Filipino: Reading and Writing. (4) Lecture, three hours. Enforced requisite: course 6 with grade of C or better. Reinforcement of basic Filipino/Tagalog placement test. Designed to move students with intermediate level of proficiency toward greater proficiency and fluency in reading, writing, speaking, and listening in Filipino language. Coverage of skills in effective use of language: description, narration, exposition, and argumentation. How to analyze different elements of writing and reading of pieces from several genres of contemporary Filipino/Tagalog literature. P/NP or letter grading.

109. Advanced Tutorial Instruction in Filipino. (2) Tutorial, two hours. Requisite: course 6 or Filipino/Tagalog placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Filipino. May be repeated for credit. P/NP or 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,
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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. 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, 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.

109. Advanced Tutorial Instruction in Indonesian. (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 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.

190A-100B-100C. Advanced Indonesian. (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. 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.

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.

109HC. 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.

Japanese

Lower-Division Courses

1. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned enough Japanese to qualify for more advanced courses. Introduction to modern Japanese with attention to conversation, grammar, and written forms. Conversation drill based on material covered in class. P/NP or letter grading.

1A. Elementary Modern Japanese for Kanji Native Students. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Introduction to modern Japanese with attention to conversation, grammar, and written forms. Conversation drill based on material covered in class. P/NP or letter grading.

2. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 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.

Upper-Division Courses

100A-100B-100C. Intermediate Hindi-Urdu. (4–4–4) Formerly numbered 4, 5, 6.) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Course 100A with grade of C or better is requisite to 100B. Course 100B with grade of C or better is requisite to 100C. Reinforcement of basic Hindi grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.
2A. Elementary Modern Japanese for Kanji Native Students. (5) Lecture, two hours; discussion, three 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 written forms for those with some Kanji knowledge. Conversation drill based on material covered in class. P/N or letter grading.

3. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 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 2. P/N or letter grading.

4. Intermediate Modern Japanese. (5) Lecture, three 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. Designed to strengthen communicative skills of listening, speaking, reading, and writing. Grammar reviews, vocabulary building skills, language learning skills, and sociocultural knowledge. P/N or letter grading.

5. Intermediate Modern Japanese. (5) Lecture, three hours; discussion, two hours. Requisite: course 4 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 4. P/N or letter grading.

6. Intermediate Modern Japanese. (5) Lecture, three hours; discussion, two hours. Requisite: course 5 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 5. P/N or letter grading.

7. Intermediate Modern Japanese. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 6 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. Continuation of course 6. P/N 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. Intensive course equivalent to courses 1, 2, and 3. Introduction to fundamentals of standard Japanese, including pronunciation, grammar, and Japanese characters, with emphasis on all four basic language skills—speaking, listening, comprehension, reading, and writing. Offered in summer only. P/N 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/N or letter grading.


11. Images of Japan: Literature and Film. (5) Lecture, three hours; discussion, one hour. Knowledge of Japanese culture, language, or literature not required. Introduction to visual and textual images of Japan's literary heritage, including documentary and feature films based on Japanese's literary classics. Letter grading.

12. Anime. (5) Lecture, three hours; discussion, one hour. Discussion and analysis of seminal works of Japanese animation, or anime, created from 1980s to present. Engagement with works in variety of styles, and that deal with broad range of themes. Reading and discussion of recent scholarship on anime produced by Japanese viewers in diverse modes, from philosophical to anthropological. Letter grading.

13. How Does It Move? Action and Moving Image in Modern Japan. (5) Lecture, four hours; discussion, one hour. How is action constituted on the screen? How has modern technological media informed and transformed our experience and understanding of action? Exploration of how our experience and conception of action is mediated by technological aesthetic media by tracing history of portrayal and experience of action both in media theory and practice. Emphasis on moving image practices surrounding production and reception of popular action film genres from Japan, such as cinema film and yakuza film. Consideration also of their relationship to international film cultures and genres (e.g. Hollywood Western, gangster film, Chinese martial arts cinema, and contemporary Hong Kong cinema) in context of broader historical transformations in media practices and in modes of distribution and reception. Study of theoretical debates, institutional practices, and ethical and political questions that inform our inquiries into moving image as action, and into action as/moving image. P/N or letter grading.

14. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division course equivalent to courses 100A, 100B, and 100C. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Course equivalent to courses 100A, 100B, and 100C. Materials selected from contemporary publications, videos, and audiotapecis on linguistic features, writing summaries and opinions, and public work. Offered in summer only. P/N or letter grading.

15. Kaji for Advanced Reading. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100 or 100S with grade of C or better or Japanese placement test. Development of ability in kanji recognition/writing and Sino-Japanese vocabulary. Primarily for students who wish to solidify and enhance firm knowledge in Japanese before engaging in advanced reading material. Enforced requisite: courses 101B and 101C. Also suitable for heritage Japanese learners who need to acquire enough kanji knowledge before taking 101B or 101S. May be taken after completion of course 101B or 101C, but not after completion of course 105A or 105B. P/N or letter grading.

16. Fourth-Year Japanese: Advanced Reading I. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Advanced readings and discussion for students planning to do advanced coursework or research on Japanese. Topics selected from magazines, journals, and books related to humanities and social sciences. May be repeated for credit. P/N or letter grading.

17. Fourth-Year Japanese: Advanced Reading – Intensive. (12) Lecture, three hours; discussion, ten hours. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Advanced readings and discussion for students planning to do advanced coursework or research on Japanese. Topics selected from magazines, journals, and books related to humanities and social sciences. Offered in summer only. P/N or letter grading.

18. 103A-103B-103C. Fourth-Year Japanese: Advanced Speaking I, II, III. (4-4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100S with grade of C or better. Development of oral and public speaking abilities for students who need focused attention to these skills. Also suitable for graduate students who wish to enhance their public speaking ability. Not intended for those who are at higher level in these skill areas. P/N or letter grading.

19. Business Japanese. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Designed to improve skills in Japanese in context of business transactions. To be successful business person, one needs advanced specialized oral and written communication skills as well as high degree of cultural understanding.

140A-100B-103C. Readings in Modern Japanese Literature. (4–4) Seminar, three hours. Enforced requisite: course 100C or 100S or Japanese placement test. Readings and discussion of works by modern Japanese writers. Each course may be taken independently for credit. Letter grading.


151. Japanese Literature in Translation: Modern. (4) Lecture, three hours; discussion, one hour. Required requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Survey of Japanese literature from 18th century to post-World War II. P/NP or letter grading.

154. Postwar Japanese Culture through Literature. (4) Lecture, three hours; discussion, one hour. Required requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Use of fiction and film to explore Japanese culture in postwar era in broad cross-disciplinary and cross-cultural context. P/NP or letter grading.


159. Variable Topics in Culture and Society in Japan. (4) Lecture, three hours. Knowledge of Japanese not required. Examination of relationship between culture (art, literature, film) and society in Japan. Reading, audio and visual material in discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C259. P/NP or letter grading.


161. Religious Life in Modern Japan. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Religious transformations accompanying rapid industrialization, urbanization, militarism, and defeat in the Pacific War, including analyses of Shinto mythology, secular positivism, Buddhist reformation movements, new religions, and continuing role of traditional village/family religious rites. Letter grading.


170. Japanese Tales of Supernatural. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Readings of fictional works that feature supernatural beings, including Shinto gods, Buddhas, bodhisattvas, Yin-yang diviners, ghosts, various types of demons, shape-shifting foxes and raccoon dogs, snakes, and dragons. Exploration of different treatments of supernatural themes from ancient to modern times, and of relationships between supernatural literature and expressions of fear, cruelty, violence, misogyny, desire, hope, compassion, and humor. 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. Knowledge of Japanese not required. Examination of classical poetry of Nara and Heian periods, with focus on poetry anthology called Man'yoshu (Collection of Myriad Ages, 8th century) and on Kokinwakashu (Collection of Ancient and Modern Japanese Poems, early 10th century). Letter grading.

178. Japanese Folklore. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Lectures/discussions on native religious rituals (festivals) and observances of Japan, with special emphasis on Shinto/Buddhist syncretism, and other non-Buddhist belief systems. Concurrently scheduled with course C282. 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 courses: 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. 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.

191A. Variable Topics Research Seminars: Classical Japan. (4) Seminar, three hours. Research seminar on selected topics in premodern Japanese literature and culture, focusing on significant areas of current research and development of culminating project. May be repeated for credit. Letter grading.

191B. Variable Topics Research Seminars: Modern Japan. (4) Seminar, three hours. Research seminar on selected topics on modern Japan. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.


197. Individual Studies in Japanese. (4) Tutorial, to be arranged. Limited to juniors/seniors and graduate students who desire more advanced or specialized instruction in Japanese. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Recommended 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


201A-201B. Introduction to Reading Japanese Academic Texts. (4-4) Lecture, three hours. Requisite: course 100A or 100R. Course 201A is requisite to 201B. Designed for graduate students. Introduction to modern Japanese-language academic texts, both preswar and postwar, with focus on only on reading; students who need to improve other skills should take additional courses. S/U or letter grading.


224A-224B. Seminars: Selected Topics in Japanese Discourse Linguistics. (4-4) Seminar, three hours. Requisite: course CM122. Critical reading and discussion of selected topics in Japanese discourse linguistics. May be repeated for credit with consent of instructor. In Progress (224A) and letter (224B) grading.

225. 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 linguistic theory. May be repeated for credit with consent of instructor: S/U or letter grading.


228. Fundamentals in Discourse Data Analysis. (4) Lecture, three hours. Designed to prepare students to conduct research using discourse data, both spoken and written, for linguistic analysis. Discussion of discourse taxonomy, data collection methodologies, data organization, analytical frameworks. Letter grading.

231. 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 (ninko) was discussed in intellectual discourses of this period, particularly in relation to politics of imperialism. Concurrently scheduled with course C131. Letter grading.

235A-235B. Seminars: Selected Topics in Modern Japanese Fiction. (4–4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (235A) and letter (235B) grading.

240A-240B. Seminars: Selected Topics in Japanese Literature. (4–4) Seminar, three hours. May be repeated for credit. In Progress (240A) and letter (240B) grading.

241A-241B. Seminars: Japanese Classics. (4–4) Seminar, three hours. Prose and poetry from early times to 1868. May be repeated for credit with consent of instructor. In Progress (241A) and letter (241B) grading.


245A-245B. 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, Nanbokucho, and Muromachi periods. May be repeated for credit with consent of instructor. In Progress (245A) and letter (245B) grading.

249. Introduction to Kambun, Japanese Literary Grammar. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Discussions and readings on ritual, divination, and competitive as well as acrobatic arts, with special emphasis on specific cultural contexts and symbolic structure of these arts. In Progress (249A) and letter (249B) grading.


M276. Reading Modern Bodies. (4) Same as Comparative Literature M276. Seminar, three hours. Designed for graduate students. Exploration of construction of human body through various modern technologies and discourses, including those of disease, diet, race, gender, and sexuality. Examination of texts from variety of locales, with particular emphasis on Japan. S/U or letter grading.

C282. Japanese Folklore. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Lectures/discussions on native religious rituals (Shinto and other) and cultural practices with special emphasis on artistic behavior. Discussion of Shinto, Shinto/Buddhist syncretism, and other non-Buddhist belief systems. Concurrently scheduled with course C182. Letter 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. Designed for Korean-heritage learners who have very limited knowledge in Korean language or have had no formal instruction in it and to students with no Korean-heritage background who want more Korean speaking/listening exposure than available in course 1. Emphasis on spelling, basic grammar, reading, writing, and daily conversation. P/NP or letter grading.

2. Elementary Modern Korean. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

2A. Elementary Korean for Korean-Heritage Speakers. (5) Lecture, two and one half hours; discussion, two hours. Enforced requisite: course 1A with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for students who are Korean-speaking family background and have some limited knowledge of Korean and to students with no
Korean-heritage background who want more Korean speaking/listening exposure than available in course 2. Emphasis on formal aspects of standard Korean (basic grammar, reading, daily conversation, polite forms, basic writing). P/N/P or letter grading.

3. Elementary Korean: (5) Lecture, five hours; discussion, two hours; discussion, three 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/N/P or letter grading.

3A. Elementary Korean for Korean-Heritage Speakers. (5) Lecture, two and one half hours; discussion, two hours. Enforced requisite: course 3A with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for students with no Korean-heritage background who want more Korean speaking/listening exposure than available in course 2. Emphasis on all four basic language skills—speaking, listening comprehension, reading, and writing. Offered in summer only. P/N/P or letter grading.

10. Intermediate Modern Korean: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Recommended requisite: course 9 or Korean placement test, or courses equivalent to elementary-level Korean. Second-year Korean. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Intensive course equivalent to courses 4, 5, and 6. Conversation, composition, and readings with structural analysis in modern Korean. Offered in summer only. P/N/P or letter grading.

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion and of critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/N/P grading.

40. Korean Wave: Globalization of South Korean Popular Culture. (5) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction to Korean popular culture and its relationship to transnational social and political contexts. P/N/P or letter grading.

50. History of Korean Civilization. (5) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Historical development of Korean culture within context of political, social, and economic history. P/N/P or letter grading.

M60. Introduction to Korean Religions. (5) (Same as Religion 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/N/P or letter grading.

60. Introduction to Korean Cinema. (5) Lecture, three hours; discussion, one hour. Broad overview of Korean film history, from beginning of 20th century into present. P/N/P 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/N/P 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 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/N/P grading.

Upper-Division Courses

100A-100B-100C. Advanced Modern Korean. (4–4–4) Lecture, three hours; discussion, two hours. Requisite: course 9A or Korean placement test. Course 100A or Korean placement test is enforced requisite to 101B; course 100B or Korean placement test is enforced requisite to 101C. Advanced readings and discussion. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of courses 6A/9A. Readings of modern prose and poetry, with emphasis on grammar and Sino-Korean. P/N/P (undergraduates), S/U (graduates), or letter grading.

101A-101B-101C. Advanced Readings in Modern Korean. (4–4–4) Lecture, three hours. Enforced requisite: course 100C or Korean placement test. Intensive course equivalent to courses 101A, 101B, and 101C. Learning advanced language with emphasis on pop culture and social issues of contemporary Korean society. Expansion of Korean literacy and cultural knowledge by examining Korean films/drama, newspapers, and other contemporary publications. Offered in summer only. P/N/P 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 have 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/P or letter grading.

103A-103B-103C. Readings in Sino-Korean Characters. (4–4–4) Lecture, three hours; discussion, two 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 China in terms 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 semantic association of Sino-Korean vocabulary. P/N/P 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 context, argument construction and coherence, and 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/P (undergraduates), S/U (graduates), or letter grading.

C105A-C105B-C105C. Reading Korean Academic Texts. (4–4–4) Lecture, three hours; fieldwork, two hours. Requisite: course 100C 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 repeated independently for credit. Concurrently scheduled with courses C205A-C205B-C205C. P/N/P or letter grading.

106A-106B-106C. Superior Korean. (4–4–4) Lecture, three hours. Recommended survey of core 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, technical and professional topics, whether those topics are familiar or not. Each course may be taken independently for credit. P/N/P or letter grading.

106SL. Superior Korean with Service Learning. (4) Lecture, three hours; fieldwork, two hours. Recommended preparation: course 101C. May not be taken concurrently with course 102A, 102B, 102C, 106A, or 106SL. Use of speaking, listening, reading, and writing skills to participate effectively, or understand without difficulty any practical, social, and professional topics, whether those topics are familiar or not. Each course may be taken independently for credit. P/N/P or letter grading.

C205A-C205B-C205C. Reading Korean Academic Texts. (4–4–4) Lecture, three hours; fieldwork, two hours. Requisite: course 101C or Korean placement test. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage in Korean of materials on Korean history, culture, and society. Each course may be repeated independently for credit. Concurrently scheduled with courses C205A-C205B-C205C. P/N/P or letter grading.
sional 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/NP or letter grading.

107A-107B-107C. Professional/Academic Korean. (4–4–4) Lecture, and forms. Requirement: professional or Korean placement test. Course 107A or 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 many sociolinguistic and cultural references as well as varieties 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 to be assigned according to student interests. Opportunity for students to communicate in Korean in authentic and professional contexts while providing useful service to community. P/NP or letter grading.

107SL. Professional/Academic Korean and Community-Based Learning. (4) Lecture, three hours; fieldwork, two hours. Requirement: course 101C or Korean placement test. May not be taken concurrently with course 102A, 102B, 102C, 106A, 106SL, or 107A. Development of professional and academic proficiency in oral and written Korean to understand many sociolinguistic and cultural references as well as variety of styles and forms pertinent to professional needs, meet demands of professional interactions, and carry out professional-level tasks in student specialization areas. Special attention to vocabulary development on professional level. Research projects to be assigned according to student interests. Opportunity for students to communicate in Korean in authentic and professional contexts while providing useful service to community, P/NP or letter grading.


109. Advanced Tutorial Instruction in Korean. (2) Tutorial, two hours. Requirement: 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 permission of instructor. P/NP or letter grading.

CM120. Structure of Korean. (4) (Same as Linguistics M177.) Lecture, three hours; discussion, one hour. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Discussion of major syntactic, semantic, and pragmatic characteristics of Korean in light of linguistic universals, with brief introduction to formation, typological features, and phonological structure of Korean. Concurrently scheduled with course C220. 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 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.


150. Korean Literature in Translation: Classical. (4) Lecture, three hours. Requirement: English Composition 3 or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Korean not required. Survey of premodern Korean literature from beginning to 19th century. P/NP or letter grading.

C151. Korean Literature in Translation: Modern. (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. Survey of modern 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. Historical and 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.

155. Topics in Korean Cinema. (4) Lecture, one hour; discussion, one hour; film viewing, three hours. Knowledge of Korean not required. Historical and critical survey of Korean cinema, examining intersection between 20th-century Korean history, politics, and filmmaking. P/NP or letter grading.

CM160. Korean Buddhism. (4) (Same as Religion M161C.) Lecture,three hours; discussion, one hour. Knowledge of Korean not required. Introduction and development of Buddhism in Korea, interactions between indigenous Korean culture and Sinitic 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, one hour; discussion, one hour. Requisite: course 100A or Chinese 110C or Korean placement test. Introduction to reading premodern Korean Buddhist texts written in Sino-Korean and translated from Sanskrit, Pali, and philosophical writings, Korean Buddhist apocryphal scriptures, native exegetical commentaries, and Son (Zen) texts. Coverage varies. Texts may be read in either Sino-Korean or literary Chinese. May be repeated with consent of instructor. Letter grading.

172. Topics in Korean Christianity. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Historical development of Christianity in Korea, beliefs and practices, impact of Christianity on modern Korean culture and society. Coverage may be repeated for credit with consent of instructor. Letter grading.

175. Intellectual History of Premodern Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. General survey of Korean thought from earliest records to 19th century, including shamanism, Taoism, Buddhism, Christianity, and neo-Confucianism. Korean traditions and those found in India, China, Japan, and West. P/NP or letter grading.

176. Introduction to Korean Confucian Texts. (4) Lecture, three hours. Enforced requisites: course 100C or Chinese 110C or Korean placement test. Reading in premodern Koryo and Choson texts on politics, society, and culture. Coverage varies. Texts may be read in either Sino-Korean or literary Chinese. May be repeated with consent of instructor. P/NP or letter grading.


178. Introduction to Modern Korean Historiography. (4) Seminar, three hours. Enforced requisites: course 101A or C105A or Korean placement test. In-depth exploration of Korean historiographical works on Korean history in modern period. Coverage may be repeated with consent of instructor.


181. Reading Korean Cultural Landscape. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction to modernizing reforms adopted in Korea in 1894. Consideration of conflict among radical Westernizers who had studied in Japan and U.S., moderate 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) Lecture, three hours; discussion, one hour. Survey of Korean folklore and its perspectives and methods—oral literature, performance folk art, 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 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 transformations. Discussion of changes such as formation of centralized bureaucratic systems, 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. Examination of modern Korean 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 changes 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. Survey of educational history of Korea. Examination of role of education in rapid demographic, political, social, and economic changes in women’s education, employment, social/legal status, especially in context of colonialism, war, democratization, and economic development. P/NP or letter grading.

186. Korea and Vietnam: Comparative Modern Histories. (4) (Same as Vietnamese 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 conflict, and post-World War II. Both were also divided after war between communist regimes in north and strongly anticommunist regimes in south. Each also experienced wartime and direct management of culture during height of cold war between 1950s and 1970s. P/NP or letter grading.

187. Popular and Folk Religion in Korea. (4) Lecture, 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. Consent of instructors required. Honors consent noted on transcript. P/ NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors consent noted on transcript. Letter grading.

190A. Comparative Topics Research Seminars: Pre-modern or Early Modern Korean History. (4) Seminar, three hours. Research seminar on selected topics of interpretation in Korean history from earliest times through mid-19th century. Coverage varies from term to term and includes such topics as state formation, international relations, or sprouts of capitalism thesis. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

190B. Comparative 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.

191. Individual Studies in Korean. (4) Tutorial, three hours. 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. (4–4) Seminar, three hours. Requisite: 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.

C205A-C205B. Reading Korean Academic Texts. (4–4) Lecture, three hours. Requisite: course 101C or Korean placement test. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage in Korean of materials on Korean history, culture, and society. May be taken independently for credit. Concurrently scheduled with courses C105A-C105B. S/U or letter grading.

C205C. Reading Korean Academic Texts. (4) Lecture, three hours. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage in Korean of materials on Korean history, culture, and society. May be taken independently for credit. Concurrently scheduled with course C105C. S/U or letter grading.


211. Thought and Society in Modern Korea. (4) Discussion, three hours. Preparation: reading knowledge of Korean. Designed for graduate students. Critical examination of text of colonialism, and shared experiences of World War II on Korean history, culture, and society. May be taken independently for credit. Letter grading.


245A-245B. Seminars: Classical Korean Poetry. (4–4) Seminar, three hours. Preparation: reading knowledge of Korean. Critical reading and analysis of classical Korean poetry, including discussion of literary and cultural contexts of poetic genres. Nature of conventions that make meaning possible. Review of latest Korean scholarly. May be repeated once with consent of instructor. In Progress (245A) and letter (245B) grading.


272. Seminar: Korean Christianity. (4) Seminar, three hours. Coverage of representative scholars' writings on history of Korean Christianity, with focus
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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 Bhagavad-Gita or comparable amount of other Sanskrit literature. P/NP or letter grading.

115. Topics in South Asian Cinema and Literature. (4) Lecture, three hours. Knowledge of Asian languages not required. Survey of some landmarks of Indian literature from second millennium BCE to second millennium CE, including both poetry and prose, “high” art and more popular genres, 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 Hindi/Urdu not required. Critical analysis of language and culture in South Asia, with attention to 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.

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. Topics include women’s life and roles in Hindu, Sikh, and Buddhist—paying equal attention to change and continuity, with emphasis on chronological development. P/NP or letter grading.

189. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities 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. 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

M222A-M222B. Vedic. (4–4) Same as Indo-European Studies M222A-M222B. Lecture, three hours. Preparation: knowledge of Sanskrit equivalent to course 110C. Characteristic of Vedic 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.

234A-234B. Introduction to Panini’s Grammar. (4–4) Lecture, three hours. Requisite: course 110C. Reading of selected passages of text, with introduction to Panini’s technique. P/NP or letter grading.

236A-B. Pali and Prakrits. (4–4) Lecture, three hours. Preparation: knowledge of Sanskrit equivalent to course 110B. Grammatical studies and reading of texts. S/U or letter grading.


260. Cultural History: Korea. (4–4) Lecture, three hours. May be repeated for credit. S/U or letter 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. Ancient religious and legal texts. Topics include women’s life and roles in Hindu, Sikh, and Buddhist. P/NP or letter grading.

175. Introduction to Indic Philosophy. (4) Lecture, three hours. Knowledge of Hindi/Urdu not required. Critical analysis of language and culture in South Asia, with attention to 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.

189. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities 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. 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

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 Bhagavad-Gita or comparable amount of other Sanskrit literature. P/NP or letter grading.

115. Topics in South Asian Cinema and Literature. (4) Lecture, three hours. Knowledge of Asian languages not required. Survey of some landmarks of Indian literature from second millennium BCE to second millennium CE, including both poetry and prose, “high” art and more popular genres, 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 Hindi/Urdu not required. Critical analysis of language and culture in South Asia, with attention to 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.

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. Topics include women’s life and roles in Hindu, Sikh, and Buddhist—paying equal attention to change and continuity, with emphasis on chronological development. P/NP 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.

234A-234B. Introduction to Panini’s Grammar. (4–4) Lecture, three hours. Requisite: course 110C. Reading of selected passages of text, with introduction to Panini’s technique. P/NP or letter grading.

236A-B. Pali and Prakrits. (4–4) Lecture, three hours. Preparation: knowledge of Sanskrit equivalent to course 110B. Grammatical studies and reading of texts. S/U or letter grading.


260. Cultural History: Korea. (4–4) Lecture, three hours. May be repeated for credit. S/U or letter grading.
89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Modern Literatures in Southeast Asia. (4) Lecture, three hours. Knowledge of Southeast Asian languages not required. Exploration of diversity of Southeast Asia in such areas as traditional culture, modernization, and literature through modern literary texts. 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

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/or visual documents. Topics include literature, religion, folklore, cultural history, and society. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible 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 Southeast Asian. (4) Tutorial, to be arranged. Limited to juniors/seniors and graduate students interested in more advanced or specialized treatment of one language offered in program beyond introductory and intermediate courses currently offered. 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 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 study of 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 their 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.

3R. Thai Scripts. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Thai and Thai 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.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members or guest faculty members about core elements of their discipline's engagement with Southeast Asia, as well as latest trends in their area. P/NP or letter grading.

205. Southeast Asian Culture and History. (4) Seminar, three hours. Designed to expose graduate students to study of 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 their area. Reading of classic texts, as well as research articles representing current state of field. S/U or letter grading.

Vietnamese

Lower-Division Courses

1. Introductory Vietnamese. (5) Lecture, two hours; discussion, three hours. Introduction to Vietnamese grammar, with equal emphasis on reading, writing, and comprehension. 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, and comprehension. P/NP or letter grading.

2A. 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.

2B. Advanced Vietnamese for Heritage Learners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, daily conversation, and polite forms. 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

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 6 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.

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.
3. Introductory Vietnamese. (S) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3A. Introductory Vietnamese for Heritage Learners. (S) Lecture, two hours; discussion, three hours. Enforced requisite: course 2A with grade of C or better or Vietnamese placement test. Not open to students who have learned, from whatever source, enough Vietnamese to qualify for more advanced courses. Designed for Vietnamese-heritage learners who have some limited knowledge of Vietnamese or who have had no formal instruction in Vietnamese. Emphasis on spelling, basic grammar, reading, writing, daily conversation, and polite forms. P/NP or letter grading.

3R. Introductory Vietnamese Reading and Writing. (S) Lecture, five hours. Recommended preparation: speaking and listening skills in Vietnamese. Training in reading and writing skills at elementary level, equivalent to completion of one year of Vietnamese at P/NP or letter grading.

4. Intermediate Vietnamese. (S) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

5. Intermediate Vietnamese. (S) 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. (S) 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.

7. Intermediate Vietnamese. (S) Lecture, two hours; discussion, one hour. Enforced prerequisite: course 4B with grade of C or better. Focus on grammar, vocabulary, and sentence structure. P/NP or letter grading.

7A. Intermediate Vietnamese Reading and Writing. (S) Lecture, three hours; discussion, three hours. Enforced requisite: course 6 with grade of C or better. Coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

7B. Topics in Contemporary Vietnamese Culture. (4) Lecture, three hours; discussion, one hour. Knowledge of Vietnamese not required. Critical and historical examination of Vietnamese literature and film. S/U 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 illustrating many paths of discovery at UCLA. P/NP grading.

40. War in Vietnamese Popular Culture. (5) Lecture, three hours; discussion, one hour. Knowledge of Vietnamese not required. Focus on popular culture produced and consumed by, or about, people in Vietnam and diasporas. Materials include theoretical and other scholarly texts, as well as literature, music, visual art, films, and comics. Reading of scholarly writings for argument, date, and methods, and learning to apply theoretical frameworks in readings and lectures to analysis of popular cultural products. 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

100A-100B-100C. Advanced Vietnamese. (4-4-4) Lecture, three hours; discussion, three hours. Enforced requisite: course 6 with grade of C or better or Vietnamese placement test. Designed to strengthen and build on language skills previously acquired at beginning and intermediate levels. Content-based readings and discussion, with various aspects of Vietnam, particularly its culture. Readings include both authentic original works and simplified texts. Each course may be taken independently for credit. P/NP or letter grading.

109. 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 proficiency in oral and written Vietnamese. May be repeated for credit. P/NP or letter grading.

M155. Topics in Vietnamese Cinema and/or Literature. (4) (Same as Asian American 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. 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.

170. Variable Topics in Vietnamese Linguistics, Languages, and Cultures. (4) Lecture, three hours. Knowledge of Vietnamese may be required. Critical analysis of language and culture in Vietnam, exploring notion of Vietnam as culture area, surveying literary landscape through poetry and short stories. May be repeated for credit. P/NP or letter grading.

180A. Vietnam: History and Civilization to 1858. (4) Lecture, three hours; discussion, one hour. Recommended preparation: at least one Asian history course. Exploration of Vietnamese society and culture from origins to early 19th century, with emphasis on examination of ways in which interactions between 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 analyzed after war between communist regimes in north and strongly anticomunist regimes in south.

Each also experienced warfare after division and direct involvement of U.S. during height of cold war between 1950s and 1970s. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 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

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.

Astronomy

See Physics and Astronomy

Atmospheric and Oceanic Sciences

College of Letters and Science

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Atmospheric and Oceanic Sciences

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James C. McWilliams, PhD (Louis B. and Martha B. Slichter Endowed Professor of Geophysics and Planetary Physics)
J. David Neelin, PhD
Suzanne E. Paulson, PhD
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Professors Emeriti

Akio Arakawa, DSc
James G. Edinger, PhD
Robert G. Fovell, PhD
Michael Ghil, PhD
Carlos R. Mechoso, PhD
George L. Siסוee, PhD
Richard M. Thorne, PhD
Richard P. Turco, PhD

Associate Professors

Jacob Bortnik, PhD
Marcelo Chamecki, PhD
Gang Chen, PhD
Ulrike Seibt, PhD
Atmospheric and Oceanic Sciences

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
- Demonstrate 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
- Demonstrate effective oral and written communication of results and conclusions of investigative work

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 Civil and Environmental Engineering M20 or Program in Computing 10A; Mathematics 3A, 3B, and 3C, or 31A, 31B, 32A, 32B, 33A, and 33B; Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, and 4BL, 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/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 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 and oceanic 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/Mathematics BS

Capstone Major

Learning Outcomes

The Atmospheric and Oceanic Sciences/Mathematics major has the following learning outcomes:

- Fundamental knowledge of the atmospheric and oceanic sciences, and the mathematical tools that enable research to be conducted
- Identification of potential research areas of interest
- Experience in conceiving and executing research projects designed to evaluate hypotheses through courses that stress oral and written presentation of research results
- Proposition, execution, and evaluation of a research project with the assistance and supervision of a faculty mentor
- Tangible capstone product, such as a written thesis, that will be archived and possibly disseminated within and beyond the department

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, 1C, Program in Computing 10A, and two courses selected from Atmospheric and Oceanic Sciences 1, 2, 3, 5. Physics 4AL and 4BL are recommended but not required. 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 C++ programming course.

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

The Major

Required: Six mathematics courses, including Mathematics 115A, 131A, 134, and three elective courses selected from 115B, 131B, 135, 136, 142, 151A, 151B, 170A, 170B, one of which must be 115B, 131B, 151B, or 170B; six atmospheric and oceanic sciences courses, including three core courses selected from Atmospheric and Oceanic Sciences 101, 102, 103, 104, M105, and three elective courses selected from the list above (if not taken to satisfy the core requirement) or from C110, C115, M120, 130, 145, C160, C170, 180.

One capstone senior project/thesis course, Atmospheric and Oceanic Sciences 199, taken for a minimum of 2 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.

Climate Science BS

Learning Outcomes

The Climate Science major has the following learning outcomes:

- Demonstrated mastery of the basic principles and tools of science
- Demonstrated fundamental understanding of the atmospheric and oceanic sciences
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 oceanic circulation, and feedback between different system components. Exciting and contentious scientific puzzles of climate system, including causes of ice ages, greenhouse warming, and el niño. Immerse in an atmospheric science and prediction to society, with emphasis on science’s role in identifying, qualifying, and solving environmental problems such as ozone hole and greenhouse warming. P/NP or letter grading.

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 chemistry. Pollution phenomena ranging from individual sources to global effects; interaction with biosphere and oceans; stratospheric pollution. P/NP or letter grading.


4. Introduction to Atmospheric Environment Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 2. Investigations and demonstrations supporting material in course 2, including box model simulation, dose responses, air parcel motion and pollution dispersion, daily and seasonal variation of smog pollutants, and smog transport. P/NP or letter grading.


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. Fundamentals of Climate Science. (4) Lecture, three hours; discussion, one hour. Enforced requirement: Mathematics 3B or 32A, Physics 1B or 6B, with grades of C or better. Development of fundamental understanding of climate science. Topics include...
global energy balance, atmospheric radiation and greenhouse effect, surface and boundary layer dynamics, atmospheric and oceanic circulation, global hydrologic cycle, modes of climate sensitivity, climate modeling, and climate change. P/NP or letter grading.

88. Lower-Division Seminar. (3) Seminar, three hours. Variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Adjunct to lower-division course lecture lesson 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. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division course lecture lesson course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Introduction to Undergraduate Research in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; laboratory, two hours. Requisites: Chemistry 14A or 20A; Earth, Planetary, and Space Sciences 71 (or Civil Engineering M20 or Program in Computing 103A); Mathematics 3A, 3B, 31A, 31B; Physics 14A or 25A or 6A. Students gain basic ability to understand, communicate, and conduct scientific research in atmospheric and oceanic sciences. Basics of scientific process, scientific literature, technical skills, such as data analysis and basic experimental techniques, and communication of scientific findings in oral and written form. Skills taught in context of projects from atmospheric and oceanic sciences.

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

M100. Earth and Its Environment. (4) Same as Environment M111) Lecture, three hours. Overview of Earth as it currently exists; how it interacts with physical and biological elements. Origins and characteristics of atmosphere, oceans, and land masses. Survey of history of Earth and of life on Earth, particularly in relation to evolution of physical world. Consideration of possibility of technological solutions to global environmental problems using knowledge gained during course. Letter grading.


110. Climate Change and Climate Modeling. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3C or 32A, Physics 1B or 6C, with grades of C or better. Global environmental issues in climate change due to human activities or natural climatic variation. Introduction to new science of climate modeling to understand and predict these changes. Physical processes in climate system. Atmospheric and oceanic circulation. El Niño and year-to-year climate prediction. Greenhouse effect and global warming. P/NP or letter grading.

103. Physical Oceanography. (4) Lecture, three hours; discussion, one hour. Requisite: Mathematics 3B or 31B. Introductory course on physical oceanography. Properties of ocean water, wave mechanics, geophysical fluid dynamics, and applications of these to physical oceanography.Letter grading.

104. Fundamentals of Air and Water Pollution. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3B or 31B. Physics 1B and 1C; Earth, Planetary, and Space Sciences M140. Introduction to traditional and emerging problems related to air and water pollution, including air pollution, water quality, and ecosystem interactions. Letter grading.

105. Introduction to Chemical Oceanography. (4) Same as Ecology and Evolutionary Biology M139.) Lecture, three hours; discussion, one hour. Introduction to course for physical sciences, life sciences, and earth sciences. Topics include chemical oceanography, composition of oceans and of ocean systems, and biological processes governing chemical and biological properties of the ocean. Topics include physical oceanography, chemistry, and atmospheric influence on ocean systems, and marine organisms and their spatial and temporal variability. Letter grading.

106. Applied Climatology: Principles of Climate Impact on Natural Environment. (4) Same as Geography 106.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of knowledge and tools to solve complex problems in contemporary applied climatology, including current practices and influences of climate on forest, agriculture, and human influence on changing climates. P/NP or letter grading.

107. Biological Oceanography. (4) Lecture, three hours; discussion, one hour. Introductory course for physical sciences, life sciences, and engineering majors interested in oceanic environment. Review of how biological processes are intrinsically tied to physical and chemical processes in oceans. Examination of processes controlling distributions of marine organisms and their spatial and temporal variability. Letter grading.


112. Climate Change Assessment. (4) Lecture, three hours. Preparation: one upper-division course in Atmospheric and Oceanic Sciences or Environmental Science. Lecture, three hours; discussion, one hour. Requisites: Mathematics 3C or 32A, Physics 1B or 6C, with grades of C or better. Global environmental issues in climate change due to human activities or natural climatic variation. Introduction to new science of climate modeling to understand and predict these changes. Physical processes in climate system. Atmospheric and oceanic circulation. El Niño and year-to-year climate prediction. Greenhouse effect and global warming. P/NP or letter grading.

115. Mesoscale Meteorology. (4) Lecture, three hours. Requisites: course 101. Observations of phenomena occurring in atmospheric boundary layer with length scales ranging from 20 km to 2,000 km. Topics include polar lows, airmass thunderstorms, multicell storms, supercell tornadoes, gust fronts, derechos, microbursts, and dry line. Discussion on design of field project. Concurrently scheduled with course C222. P/NP or letter grading.


130. California’s Ocean. (4) Lecture, four hours. Recommended requisite: course 103 or M105. Circulation, biogeochemistry, biota, water quality, measurement techniques, computational modeling, conservation and management for California’s ocean, including coastal measurement cruise and term project (paper and presentation). Letter grading.


141. Introduction to Atmospheric Chemistry and Air Pollution. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14B or 20B, Mathematics 3A or 31A, Physics 1B or 6B. Physical and chemical processes that determine composition of atmosphere and its implications for climate, ecosystems, and human welfare. Origin of atmosphere. Nitrogen, oxygen, carbon, sulfur, trace metal cycles. Climate forcing and greenhouse effect. Consequences of climate change and sustainability. Introduction to global ocean datasets and IPCC-class model output. Student-led presentation to review significant papers from scientific literature. Letter grading.

143. Atmospheric Boundary Layer. (4) Lecture, three hours. Enforced requisite: course 101 with grade of B+ or better. Atmospheric boundary layer is lowest portion of atmosphere, representing interface between Earth’s surface and atmosphere, is strongly affected by human activities, and 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, or 1C, or 6A, 6B, and 6C. Theory and application of atmospheric radiation, aerosol, and cloud processes. Topics include radiation transport, climate, aerosol properties, impact of aerosol and clouds on climate. Letter grading.

150. Atmospheric and Oceanic Sciences Laboratory. (5) Lecture, one hour; laboratory, six hours. Requisites: Mathematics 3B or 31B, Physics 1B or 6B (or 6B and 6C). Many of today’s environmental problems, such as stratospheric ozone hole, current rise of greenhouse gas concentrations, and various severe weather phenomena, were first discovered and investigated using accurate observational techniques. Direct experimental observations remain crucial component in today’s efforts to better understand weather, climate, atmospheric and oceanic phenomena. Introduction to experimental/observational approach in
atmospheric and oceanic sciences. Students work in small groups to gain hands-on experience in setup, performance, analysis, and reporting of different experiments. 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 the atmosphere. An ecological systems approach to current issues in projections of future anthropogenic climate change under standardized scenarios for future anthropogenic greenhouse gases and aerosols. May be repeated for credit. S/U (for majors with consent of instructor).

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; relevant satellite systems; inversion methods; remote sensing of clouds, aerosols, temperature, precipitation, and trace constituents; remote sensing of oceans and biosphere. Concurrently scheduled with course C240B. P/NP or letter grading.


182. Data Analysis in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; laboratory, one hour. Enforced requisite: one course from 101 through M105. Recommended: one probability course. Overview of data analytic methods in common use in atmospheric sciences. Linear regression, one principal component analysis (empirical orthogonal function), time-series analysis, and clustering methods. Model validation and evaluation, significance tests, error detection and correction. Emphasis on methods and applications, with specific examples from atmospheric and oceanic sciences. Concurrently scheduled with course C260. P/NP or letter grading.

186. Operational Meteorology. (2) Laboratory, six hours. Requisite: course C110. Limited to junior/se- nior Atmospheric, Oceanic, and Environmental Sciences majors. Daily contact with weather data and forecasting, satellite and radar data. Introduction to weather forecasting for aviation, air pollution, marine weather, fire weather, and public use. Includes daily weather map discussions and visits to observing, radiosonde, and radar installations. Letter grading.

188C. Honors Contracts. (1) Tutorial. Three hours. Limited to College Honors Program. Des- signed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or laboratory activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

190. Research Colloquium in Atmospheric and Oce- anic Sciences. (2) Seminar, two hours. Preparation: basic knowledge of meteorology (equivalent to course 3) and lower-division calculus, chemistry, and physics; course 101 strongly recommended. Limited to department majors and others. 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. Enroll- ment to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student, 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 Oce- anic Sciences. (2 to 4) Tutorial, to be arranged. Lim- ited to juniors/seniors and required for Mathematics/ Atmospheric and Oceanic Sciences majors. Super- vised individual research or investigation under guid- ance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual con- tract required. P/NP or letter grading.

Graduate Courses


200B. Introduction to Dynamics of Earth System. (4) Lecture, three hours. Overview of general circula- tion of atmosphere and ocean; global energy bal- ances; coupled circulations (such as El Nino); meso- scale, synoptic, and tropical phenomena; boundary layers, clouds, and convection; biogeochemical cy- cles; climate variability and change. S/U or letter grading.


201C. Atmospheric and Oceanic Turbulence. (4) Lecture, three hours. Required course: course 200A. Recom- mended: course 201A. Turbulent flows that occur on relatively small scales (~10 km) in both atmosphere and ocean. Classical homogeneous, inhomogeneous, convective, and boundary-layer turbulence and its geophys- ical modification due to stratification, Earth’s rotation, and surface and water waves. S/U or letter grading.


M203A. Introduction to Atmospheric Chemistry. (4) (Same as Civil Engineering M262A.) Lecture, three hours; Tutorial, two hours. Principles of chemical kinetics, thermodynamics, spectroscopy, and photochemistry; chemical compo- sition and history of Earth’s atmosphere; biogeo- chemical cycles of key atmospheric constituents; radiative transfer; climate; the Earth atmosphere and strato- sphere, upper atmosphere chemical processes; air pollution; chemistry and climate. S/U or letter grading.

203B. Introduction to Atmospheric Physics. (4) Lecture, three hours; discussion, one hour. Principles of radiative transfer, absorption, emission, and scat- tering of solar and infrared radiation; radiation budget consideration; aerosols in atmosphere; principles of oral comprehensive examination and for nonmajors at discretion of major department or letter grading.

205A. Introduction to Solar System Planets. (4) Lecture, three hours; discussion, one hour. Intro- duction 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 dy- namics) approach. Solar-planetary coupling pro- cesses, geomagnetic phenomena, aurora. Concurrently scheduled with course C170. S/U (for majors with consent of instructor). Completion of written and oral comprehensive examination and for nonmajors at discretion of major department or letter grading.

205B. Introduction to Solar-Terrestrial Physics. (4) Lecture, three hours; discussion, one hour. Solar, in- terplanetary, magnetospheric, ionospheric, auroral, geomagnetic phenomenological and theoretical background for studies in space physics. Contextual understanding of interactions and dynamics of solar wind and magnetosphere. 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.

205C. Planetary Upper Atmospheres. (4) Lecture, three hours; discussion, one hour. Aeronomy of upper atmospheres of Earth and other planets and some of their satellites—thermospheric structure and mor- phology, circulations, and disturbances; ionospheres as collisional and magnetized (unmagnetized) plasmas: currents, drifts, and instabilities. Examples of dynamic atmospheric and planetary atmos- phere and magnetosphere. S/U (for majors with con- sent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

205D. Introduction to Biophysical Modeling of Land Surface Processes and Land/Appearance Inter- actions. (4) (Same as Geography M206.) Lecture, two hours; laboratory, one hour; reading period, one hour. Designed for graduate students. Presentation of introductory knowledge for graduate students to un- derstand nature, principles, and scope of biophysical modeling of land surface processes. Developing ideal canopy model, radiation, heat and CO2 fluxes transfer, and satellite data application. Laboratory sessions in- cluded. S/U or letter grading.

209. Climate Change Assessment. (4) Lecture, three hours; discussion, one hour. Corequisites: grad- uate atmospheric, oceanic, hydrological, or climate science courses. Lectures, readings, and projects on current climate change issues and regional- and new perspectives on anthropogenic climate change; design and use of resources from Coupled Model Intercomparison Projects (CMIPs), topics from large multis cientist climate assessments, including intergovernmental Panel on Climate Change (IPCC). Issues in modeling current climate, including natural climate variability, paleoclimates, and current change under standardized scenarios for future anthropogenic greenhouse gases and aerosols. May be repeated for credit. S/U (for majors with consent of in-
211. Planetary Wave Dynamics and Teleconnections in Atmosphere/Ocean. (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. Requisites: courses 201A, 212A. Numerical methods for initial-boundary value problems in fluid dynamics, with emphasis on applications to atmospheric and oceanographic problems. Finite-difference methods and emphasis on applications to atmospheric and oceanic transports. Finite-difference methods and emphasis on applications to atmospheric and oceanic transports. 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. Radiative transfer and energy-balance models (EBMs). Multiple equilibrium climates and their stability. Coupled EBMs of atmosphere and oceans. Climatic history of our planet. Continental mechanics of ice sheets and mantle. Oscillatory models of Quaternary glacial cycles. Transitions from equilibrium to chaotic behavior, and chaotic 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.

215. Ocean Circulation. (4) Lecture, three hours. Requisites: courses 200A, 201A. Phenomena, theory, and modeling of ocean circulations with global to regional scales. Oceanic processes include thermohaline and wind-driven currents. Examination of relationships between ocean circulations and smaller-scale motions, atmospheric climate, and biogeochemical transport. 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. Interactions between atmosphere and land surface. 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 Ocean/Air System. (4) Lecture, three hours. Transfer of properties between atmosphere and ocean. Role of air-sea interaction in 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.


222. 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 properties of atmospheric boundary layer and processes that determine them. Concurrently scheduled with course C144. S/U or letter grading.

223A. Atmospheric Turbulence. (4) Lecture, three hours. Kinematics of homogeneous and shear flow turbulence. Surface and planetary boundary layers, including heat transfer and turbulent convection. Survey of field and laboratory observations and their interpretation by theory. 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.

224B. Atmospheric Diffusion and Air Pollution. (4) (Same as Civil Engineering M262B.) Lecture, three hours. Nature and sources of atmospheric pollution; diffusion from point, line, and area sources; 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.

227. Advanced Dynamic and Synoptic Meteorology. (4) Laboratory, six hours. Requisite: course 101. Weather analysis, forecasting, and interpretation, severe weather forecasting, isentropic analysis, frontogenesis, quasi-geostrophic omega equation. Concurrently scheduled with course C110. 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.

228. Mesoscale Meteorology. (4) Lecture, three hours. Requisite: course 101. Observations, with length scales ranging from 20 km to 2,000 km. Topics include polar lows, airmass thunderstorms, multicell storms, supercell tornadoes, gust fronts, downbursts, microbursts, and dry line. Discussions on design of field projects. Concurrently scheduled with course C115. 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.


C229. Mesoscale Modeling. (4) Lecture, three hours. Requisites: courses 201C, C228. Numerical and analytical modeling of convective and mesoscale motions, from low level flows to large complex systems. Model frameworks, assumptions, parameterizations, and solution techniques. Role of modeling efforts in understanding dynamic structure and behavior of mesoscale systems. S/U for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

230A. Atmospheric Chemistry I. (4) Lecture, three hours. Requisite: course M203A. Chemistry of troposphere; chemical physics of surfaces and solutions; precipitation chemistry and acid rain; atmospheric organic chemistry; regional and global biogeochemical cycles; current issues in global change. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

230B. Atmospheric Chemistry II. (4) Lecture, three hours. Requisites: course M203B. Chemistry of stratosphere and mesosphere; basic ionospheric processes; stratospheric pollution and ozone layer, physical chemistry of upper atmosphere clouds and aerosols; comparative photochemistry of planetary atmospheres; observational techniques and results. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

232. Chemical Transport Modeling. (4) Lecture, three hours. Requisites: courses M203A, 230A, 230B. Equations of tracer transport and chemical kinetics modeling in three dimensions; numerical techniques; coupled simulations of gas-phase and aerosol microphysics and chemistry; computational versus observational results; current problems in tracer modeling. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

M235. Ocean Biogeochemical Dynamics and Climate. (4) (Same as Ecology and Evolutionary Biology M238.) Lecture, three hours. Interaction of ocean biogeochemical cycles with physical climate system. Biogeochemical processes controlling carbon dioxide, calcium carbonate, oxygen in oceans and atmosphere; time-scales from few million years to several years. Anthropogenic perturbation of global carbon cycle and climate. Response of ocean ecosystems to past and future global changes. U.S. ocean biogeochemical cycles and climate. Interactions between biogeochemical cycles on land and in ocean. S/U or letter grading.
Upper Atmosphere and Space Physics

M250A. Solar System Magnetohydrodynamics. (4) (Formerly numbered 250A.) (Same as Earth, Planetary, and Space Sciences M265A.) Lecture, three hours. Requisite: course C205A. Derivation of MHD equations with two fluid aspects, generalized Ohm’s law, small amplitude waves, discontinuities, shock waves, and instabilities. Comparison to statics and dynamics of solar wind and planetary magnetospheres and to solar wind/magnetosphere/ionosphere coupling. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

250B. Solar System Microscopic Plasma Processes. (4) Lecture, three hours. Requisite: course C205A. Adiabatic charged particle dynamics; incoherent radiation processes; collective effects in plasma; propagation characteristics of electrostatic and electromagnetic radiation in the resonant interaction between charged particles and plasma waves. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

256. Ionospheric Electrodyamics. (4) Lecture, three hours. Ionospheric structure, currents, and electric fields; equatorial and high-latitude ionospheres; ionospheric heating: phenomenological models. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

257. Radiation Belt Plasma Physics. (4) Lecture, three hours. Requisite: course 250B. Turbulent plasma instabilities and their relation to satellite observations and magnetospheric structure. Processes responsible for pulsations and tails, 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.


260. Data Analysis in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; laboratory, one hour. Enforced requisite: one course from 101 through M105. Overview of data analytic methods in common use in atmospheric and oceanic research. Linear models, principal component analysis (empirical orthogonal function), time-series analysis, and clustering methods. niche evaluation and 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.


274. Seminar: Atmospheric Chemistry. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.


276. Seminar: Mesoscale Processes. (2) Seminar, one hour. Selected topics of current research interest in convection, extratropical cyclones, and fronts. May be repeated for credit. S/U or letter grading.


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, on e hour; discussion, one hour. Statistical prediction and verification, 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.


296Q. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
BIOENGINEERING

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Ian Cook, PhD, in Residence
Linda L. Demer, MD, PhD
Timothy J. Deming, PhD
Dino Di Carlo, PhD
Robin L. Garrett, PhD
Warren S. Grundfest, MD, FACS
Tzung K. Hsiai, MD, PhD, in Residence
Bahram Jalali, PhD
Daniel T. Kamei, PhD
H. Pirouz Kavehpour, PhD
Alireza 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
Aydogan Ozcan, PhD
Jacob Rosen, PhD
Jacob J. Schmidt, PhD
Kalyanam Shivkumar, MD, PhD, in Residence
Ren Sun, PhD
Yi Tang, PhD
Michael A. Teitel, PhD
Cun-Yu Wang, DDS, PhD
Gerard C.L. Wong, PhD
Benjamin M. Wu, DDS, PhD
Yang Yang, PhD

Professors Emeriti
Chih-Ming Ho, PhD (Ben Rich Lockheed Martin Professor Emeritus of Aeronautics)
Edward R.B. McCabe, MD, PhD (Mattel Endowed Professor Emeritus of Pediatrics)

Associate Professors
Chi On Chui, PhD

Andrea M. Kasko, PhD
Assistant Professor
Stephanie K. Seiditis, PhD
Adjunct Professor
James C.Y. Dunn, MD, PhD
Adjunct Associate Professor
Bill J. Tawl, MBA, PhD
Adjunct Assistant Professors
Chase Linsley, PhD
Kayvan Niazi, PhD
George N. Saddik, PhD
Zachary D. Taylor, 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 Science 31 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL.

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, Engineering 183EW or 185EW, 167L, 176, 180, Electrical and Computer Engineering 100; 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, M153, C155 (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.

Biomedical Devices: Bioengineering C131, C133, 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 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. Introduction to scientific and technological bases for established and emerging subfields of bioengineering, including biosensors, bioinstrumentation, and biosignal processing; biomechanics, biomaterials, tissue engineering, biotechnology, biological imaging, biomedic optical and laser, neuroengineering, and biomolecular machines. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Bioengineering Fundamentals. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Mathematics 32A, Physics 1A. Basic concepts of chemical ligation, molecular interactions, depletion interactions, hydration and solvation interactions, polymerization, and effects of synthesis route on polymer characteristics, and data processing and recording. Application of engineering principles 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, and hydrophobic interactions, hydration and solvation interactions, polymer-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 broad spectrum of bioengineering problems, such as therapeutic drug and gene delivery and tissue engineering. May be taken independently for credit. Concurrently scheduled with course C239A. 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, and hydrophobic interactions, hydration and solvation interactions, polymer-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 broad spectrum of bioengineering problems, such as therapeutic drug and gene delivery and tissue engineering. May be taken independently for credit. Concurrently scheduled with course C239A. Letter grading.

110. Biobehavioral Science Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 100, Mathematics 33B. Overview of analysis of flow, heat transfer, mass transfer, binding events, and biochemical reactions in systems of interest to bioengineers, including cells, tissues, organs, human body, extracorporeal devices, tissue engineering systems, and bioartificial organs. Introduction to pharmacokinetic analysis. Letter grading.


131. Nanopore Sensing. (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, and hydrophobic interactions, hydration and solvation interactions, polymer-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 broad spectrum of bioengineering problems, such as therapeutic drug and gene delivery and tissue engineering. May be taken independently for credit. Concurrently scheduled with course C239A. Letter grading.

130B. Biomolecular Materials Science II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Course C139A is not required to take C139B. 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, and hydrophobic interactions, hydration and solvation interactions, polymer-mediated interactions, depletion interactions, molecular recognition, and others. Illustration of these ideas using examples from bioengineering and biomedical engineering. Case study on current topics, including drug delivery, gene therapy, cancer therapeutics, emerging pathogens, and relation of self-assembly to disease states. Concurrently scheduled with course C239B. Letter grading.

140. Introduction to Biomechanics. (4) Same as Mechanical and Aerospace Engineering CM140.) Lecture, four hours; discussion, one hour; outside study, six hours. Requisites: Mechanical and Aerospace Engineering 101, 102, and 156A or 166A. Introduction to mechanical functions of human body; skel-
eral adaptations to optimize load transfer, mobility, and function. Dynamics and kinematics, Fluid me-
chanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Con-
currently scheduled with course CM240. Letter grading.

CM141. Mechanics of Cells. (4) (Same as Mechan-
al and Aerospace Engineering CM141.) Lecture, four hours. Introduction to physical structure of cells bi-
ology and the interactions that govern the function mechanically. Review and application of con-
tinuum mechanics and statistical mechanics to de-
velop quantitative mathematical models of structural mechanical, biological, and industrial perspectives. Emphasis on research and writing within en-

CM145. Molecular Biotechnology for Engineers. (4) (Same as Chemical Engineering CM145.) Lecture, four hours; discussion, one hour; outside study, seven hours. Required: Biochemistry 45. Selected topics in molecular biology that form foundation of biotechnology and medical therapeutics. Topics include recombinant DNA technology, molecular re-
search tools, manipulation of gene expression, di-
rected mutagenesis and protein engineering, DNA-
base techniques for microarray and polymerase, and protein-based diagnostics, genomics and bioin-

C147. Applied Tissue Engineering: Clinical and Ind-
dustrial Perspective. (4) Lecture, three hours; dis-
cussion, two hours; outside study, seven hours. Re-
quisites: course 20A, 20L, Life Sciences 1 or 2. Overview of central topics of tissue engineering, with focus on how to build artificial tis-
ues into regulated clinically viable products. Topics include bioengineering, cell source delivery, materials, FDA approval processes, and physical/chemical and biological testing. Case studies include skin and artificial skin, bone and cartilage, blood ves-
sels, neurotissue engineering, and liver, kidney, and other organs. Clinical and industrial perspectives of tissue engineering products. Manufacturing con-
straints, clinical limitations, and regulatory challenges in design and development of new and novel devices. Con-
currently scheduled with course C247. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Chemical Engineering M153 and Chemical and Mechanical Aerospace Engineering M183B.) Lecture, three hours; laboratory, four hours; outside study, five hours. Required: Chemistry 20A, 20B, and 20L. Introduction to general manufacturing methods, mechanisms, constraints, and microfabrication and nanofabrication. Focus on concepts, physics, and instruments of various micro-
fabrication and nanofabrication techniques that have been broadly applied in industry and academia, in-
cluding various photolithography technologies, phys-
ical and chemical deposition methods, and physical and chemical etching. Hands-on experiences for fabricating microstructures and nanostructures in modern cleanroom environment. Letter grading.

C155. Fluid-Particle and Fluid-Structure Interac-
tions in Microflows. (4) Lecture, four hours; labora-
(tory, one hour, one laboratory experiment. En-
rolled requisite: course 110. Introduction to Navier/Stokes equations, assumptions, and simplifications. Analyt-
cal framework for calculating simple flows and nu-nerical methods to solve and gain intuition for com-
plex flows. Forces on particles in Stokes flow and fi-
nite-inertia flows. Flows induced around particles with and without finite inertia and implications for particle-particle interactions. Fluid forces on structures and flow by structures and particles in confined flows. Particle separations by fluid dynamic forces: field-flow frac-
tionation, inertial focusing, structure-induced separa-
tions. Application concepts in internal biological flows and separations for biotechnology. Helps students be-
come sufficiently fluent with fluid mechanics vo-
cabulary and techniques, design and model microflu-
ids systems to manipulate fluids, cells, and particles, and develop strong intuition for how fluid and parti-
cles behave in arbitrary structured flows over range of Reynolds numbers. Concurrently scheduled with course C255. Letter grading.

165EW. Bioengineering Ethics. (4) Lecture, four hours; discussion, two hours; outside study, five hours. All professions have ethical rules that derive from moral theory. Bioethics is well-established disci-
pline that addresses ethical problems about life, such as the following questions. Should I end life ever be assisted? At what cost should it be maintained? Unlike physicians, bioengineers do not make these decisions in practice. Engineering ethics addresses ethical problems about producing devices from molecules to bridges, such as when do concerns about risk outweigh concerns about cost? When are weapons too dangerous to design? At what point does benefit of committing to building devices outweigh need to wait for more scientific confirmation of their effectiveness? Bioengineers must be aware of consequences of applying such devices to all living systems. Emphasizes ethical reasoning within en-

167L. Bioengineering Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enrolled requisite: Physics 1A, 1B, 1C, 4AL, 4BL. Introduction to various types of energy-tissue interactions. Concur-
rrently scheduled with course C270L. Letter grading.

C170. Energy-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Required requisites: Life Sciences 2, Physics 1C. Introduction to thera-
peutic use of energy delivery devices in medical and dental applications, with emphasis on understanding fundamental mechanisms underlying various types of energy-tissue interactions. Concur-
rrently scheduled with course C270L. Letter grading.

C170L. Introduction to Techniques in Studying La-
ser-Tissue Interaction. (2) Lecture, four hours; dis-
cussion, two hours; outside study, two hours. Corequisite: course C170. Introduction to introduction and experimental tech-
niques used for laser tissue interactions. Topics include computer simulations of light propagation in tissue, measuring absorption spectra of tissue/ tissue phantom, making tissue phantoms, determina-
tion of absorption properties of tissue, determination of optical properties of tissue, and fluorescence spectroscopy bio-
logic media. Concurrently scheduled with course C270L. Letter grading.

C171. Laser-Tissue Interaction II: Biologic Spec-
troscopy. (4) Lecture, four hours; outside study, eight hours. Required: course C170. Designed for physical sciences, life sciences, and engineering majors. Intro-
duction to optical spectroscopy principles, design of spectroscopic measurement devices, optical proper-
ties of tissues, and fluorescence spectroscopy bio-
logic media. Concurrently scheduled with course C271L. Letter grading.

C172. Design of Minimally Invasive Surgical Tools. (4) Lecture, three hours; discussion, two hours; out-
side study, seven hours. Required: Chemistry 30B, Life Sciences 2, 3, Mathematics 32A. Introduction to design process and conceptual tools used in design and manufacture of tools for minimally inva-
sive surgery. Coverage of FDA regulatory policy and surgical procedures. Topics include optical devices, endoscopes and laparoscopes, biophotonic devices, laser-
scope tools, cardiovascular and interventional ra-
diology devices, orthopedic instrumentation, and in-
tegration of devices with therapy. Examination of components, material properties, and regulatory tests and validation. Preparation of drawings and consider-
tation of development of new and novel devices. Con-
currently scheduled with course C272L. Letter grading.

176. Principles of Biocompatibility. (4) Lecture, four hours; discussion; two hours; outside study, six hours. Enrolled requisites: course 100, Mathematics 33B, Physics 1C. Biocompatibility at systemic, tissue, cellular, and molecular levels. Biomechanical compati-
bility, response to stress, and shear force, cell and organ responses to mechanical signals, biochem-
ical and cellular compatibility, immune response. Letter grading.

177A. Bioengineering Capstone Design I. (4) Lect-
ture, two hours; laboratory, six hours; outside study, four hours. Enrolled requisites: courses 167L, 176. Lectures, seminars, and discussions on aspects of biomedical device and therapeutic delivery. Topics such as need finding, intellectual property, en-
trepreneurship, regulation, and project management. Working in teams, students develop innovative solu-
tions to address current problems in medicine and bi-
ology. Sourcing and ordering of materials and sup-
plies relevant to student projects. Exploration of dif-

177B. Bioengineering Capstone Design II. (4) Lect-
ture, two hours; laboratory, six hours; outside study, four hours. Enrolled requisite: course 177A. Lectures, seminars, and discussions on aspects of biomedical device and therapeutic delivery. Topics such as need finding, intellectual property, en-
trepreneurship, regulation, and project management. Working in teams, students develop innovative solutions to address current problems in medicine and bi-
ology. Sourcing and ordering of materials and sup-
plies relevant to student projects. Exploration of dif-

177E. Bioengineering Capstone Design II. (4) Lect-
ture, two hours; laboratory, six hours; outside study, four hours. Enrolled requisite: course 177A. Lectures, seminars, and discussions on aspects of biomedical device and therapeutic delivery. Topics such as need finding, intellectual property, en-
trepreneurship, regulation, and project management. Working in teams, students develop innovative solutions to address current problems in medicine and bi-
ology. Sourcing and ordering of materials and sup-
plies relevant to student projects. Exploration of dif-

180. System Integration in Biology, Engineering, and Medicine I. (4) Lecture, three hours; discussion; two hours; outside study, seven hours. Enrolled requis-
tes: courses 100, 117L, 118, 127L, Life Sciences 3, Phys-
ics 1C. Corequisite: course 180L, Part I of two-

180L. System Integration in Biology, Engineering, and Medicine I Laboratory. (4) Lecture, three hours; laboratory, four hours; outside study, four hours; out-

M182. Systems Biomodeling and Simulation Ba-
sics. (4) (Same as Computer Science M182.) Lecture, three hours; discussion, two hours; outside study, six hours. Required: Mathema-
tics 3B, 31B, or Life Sciences 30A. Recommended corequisite: Mathematics 32A, 32C, or Life Sciences 30B. Designed for undergraduate students in sci-
ences and engineering. Introduction to explicit mod-
eling and simulation of dynamic biological systems. Presentation of how biology, biochemistry, and physi-
ology 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 concepts, are further transformed into first-order differential equations, and implemented in simulation diagrams for quantifying and exploring biosystem properties. New therapeutic approaches require comprehensive understanding of modern biology, physiology, and engineering. Targeted delivery of genes and drugs and their controlled release are important in treatment of challenging diseases and relevant to tissue engineering and regenerative medicine. Drug pharmacodynamics and clinical pharmacokinetics. Application of engineering principles (diffusion, transport, kinetics) to problems in drug formulation and delivery to establish rational approaches for designing and development of novel drug delivery systems that can provide spatial and temporal control of drug release. Introduction to biomaterials with specialized structures and properties. Exploration of both chemistry of materials and physical presentation of devices and compounds used in delivery and release. Concurrently scheduled with course C285. Letter grading.

M184. Introduction to Computational and Systems Biology. (2) (Same as Computational and Systems Biology M184.) Lecture, two hours; outside study, four hours. Enforced requisites: Computer Science M101, or English Engineering 102; 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 study. Credits cannot be applied for transfer credit. Students with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology 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 physics, biology, and engineering approach to regenerate tissues and organs. Guiding principles for proper selection of three basic components for tissue engineering: cells, scaffolds, and mechanical support. Concurrently scheduled with course C285. Letter grading.

CM186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Computational and Systems Biology M186, Computer Science CM186, and Ecology and Evolutionary Biology M178.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic bio-systems modeling and computer simulation methods for studying biological/biomedical processes and systems at multiple levels of organization. Control system, multicompartamental, predator-prey, pharmacokinetics, systems biology. Use of structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismic levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into mathematically and computationally implementable programs and utilizing them for simulation and analysis. Basics of numerical simulation algorithms. Application of feedback control exercises to class-PC laboratory assignments. Concurrently scheduled with course CM286. Letter grading.

CM187. Research Communication inComputational and Systems Biology. (4) (Same as Computational and Systems Biology M187.) Lecture, four hours; outside study, eight hours. Requisite: course CM186. Closely directed, interactive, and real research experience in active quantitative systems biology research laboratories. Direction on how to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations and written research reports explain how to proceed. Principles of effective presentation in writing and live presentations. Development of presentation skills with emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM287. Letter grading.

180. Special Courses in Bioengineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Special topics in bioengineering for undergraduate students taught on experimental or temporary basis by department faculty and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Bioengineering. (4) Seminar, three hours. Limited to bioengineering undergraduate students who are part of research group. Study and analysis of current topics in bioengineering. Discussion of current research literature in research specialty of faculty member teaching course. Student presentation of projects in research specialty. May be repeated for credit. Letter grading.

199. Directed Research in Bioengineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of an examining 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


CM202. Human Physiological Systems for Bioengineering 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 in cell and whole 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 CM102. Letter grading.


C204. Physical Chemistry of Biomacromolecules. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 30A, Life Sciences 2-3. To understand biological macromolecules, including their folding, conformations, and interactions, it is imperative to understand their physical chemistry. Biomacromolecules such as protein or DNA can be analyzed and characterized by applying fundamentals of polymer physics-chemistry. Investigation of polymer structure and conformation, and subsequent 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 preparation and characterization of biomicromolecules. Concurrently scheduled with course C104. Letter grading.

C205. Engineering of Bioconjugegates. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, 20L. Highly recommended: one organic chemistry course. Bioconjugate chemistry is science of coupling biomolecules for wide range of applications. Bioconjugates 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. Basics of chemical ligation, including choice and design of conjugate linkers depending on type of biomolecule and desired application. Presentation and discussion of design and synthesis of synthetic bioconjugates for some sample applications. Concurrently scheduled with course C105. Letter grading.

C206. Topics in Bioelectricity for Bioengineers. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Chemistry 20B, Life Sciences 2-3, Mathematics 3B, Electrical and Computer Engineering 113. Coverage in depth of physical processes associated with biological membranes and channel proteins, with specific emphasis on electrophysiology. Basic physics principles governing ionic phenomena, and reaction kinetics to develop tools in dielectric media, building on complexity to ultimately address action 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 conductance, and computational electrophysiology. Concurrently scheduled with course C106. Letter grading.

C207. Polymer Chemistry for Bioengineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course C204 or C205. Fundamental concepts as dependent or irreversible linkers. Presentation and discussion of design and synthesis of synthetic bioconjugates for some sample applications. Concurrently scheduled with course C107. Letter grading.


M215. Biochemical Reaction Engineering. (4) (Same as Chemical Engineering CM215.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Chemical Engineering 101C. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biochemical reactors. Letter grading.

M217. Biomedical Imaging. (4) (Same as Electrical and Computer Engineering M217.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: Electrical and Computer Engi-
neering 114 or 211A. Optical imaging modalities in biomedicine. Other nonoptical imaging modalities discussed briefly for comparison purposes. Letter grading.

M219. Principles and Applications of Magnetic Resonance Imaging. (Same as Physics and Biolog
ey) Introduction to basic imaging physics (magnetization, dephasing, and SPGR), and image acquisition and analysis. Topics include MR techniques and applications. Understanding of different modes for-MR imaging and their applications, with focus on various advanced in-field, such as con
tent-based image retrieval, computer-aided detection/diagnosis, and imaging genomics. Focus on basic understanding of issues related to basic med-
cine acquisition and analysis. Current research efforts with on clinical applications and new types of modalities are available through these modalities. Letter grading.

224B. Advances in Imaging Informatics. (4) Lec-
ture, four hours; outside study, eight hours. Overview of imaging informatics in medicine, with focus on various advances in field, such as con-
tent-based image retrieval, computer-aided detection/diagnosis, and imaging genomics. Introduction to core concepts in information retrieval (IR), reviewing seminal papers on evaluating IR systems and their use in medicine (e.g., teaching files, case-based re-
trieval, etc.). Examination of specific techniques for image feature extraction and processing, feature rep-
resentation, indexing and querying, and classification (machine/deep learning). Survey of clinical applica-
tion of these techniques and ongoing challenges. Letter grading.

M225. Bioseparations and Bioprocess Engineer-
ing. (4) (Same as Chemical Engineering C225M.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced prerequisite: Chemical En-
gineering C1C. Separation processes, and economic factors used to design processes for isolating and purifying materials like whole cells, en-
yzmes, food additives, or pharmaceuticals that are products of bioprocessing. Letter grading.

M226. Medical Knowledge Representation. (4) (Same as Information Studies M253.) Seminar, four hours; outside study, eight hours. Designed for grad-
uate students. Topics include content-based image retrieval and its application in healthcare pro-
cesses. Topics include data structures used for repre-
sentation of biomedical concepts (e.g., database models, ontologies, and knowledge bases) and repre-
sentation of spatio-temporal information, rule-based implementa-
tions, current statistical methods for recovery of enhanced data, and artificial intelligence techniques. Focus on under-
standing how to identify unmet clinical needs, properly filtering through these needs using various acceptance cri-
teria, and selecting promising needs for which poten-
tial medtech solutions are explored. Students work in
groups to expedite traditional research and develop-
ment processes to invent and implement new med-
tech devices that increase quality of clinical care and result in improved patient outcomes in acute and chronic hospital system. Introduction to intellectual property basics and
to medtech business models. Letter grading.

M233A. Medtech Innovation I: Entrepreneurial Op-
opportunities in Medical Technology. (4) (Same as Management M271A.) Lecture, three hours; outside study, nine hours. Designed for graduate and professional students in engineering, dentistry, law, management, and medicine. Focus on understanding how to identify unmet clinical needs, properly filtering through these needs using various acceptance cri-
teria, and selecting promising needs for which poten-
tial medtech solutions are explored. Students work in
groups to expedite traditional research and develop-
ment processes to invent and implement new med-
tech devices that increase quality of clinical care and result in improved patient outcomes in acute and chronic hospital system. Introduction to intellectual property basics and
to medtech business models. Letter grading.

M233B. Medtech Innovation II: Prototyping and New Venture Development. (4) (Same as Manage-
ment M271B.) Lecture, three hours; outside study, nine hours. Enforced prerequisite: course M233A. Designed for graduate and professional students in engineering,
dentistry, law, management, and medicine. Development of medtech solutions for unmet clinical needs previously identified in course M233A. Steps necessary to commercialize viable medtech solutions. Exploration of concept selection, business plan de-
velopment, intellectual property filing, financing strat-
egies, and device prototyping. Letter grading.

C239A. Biomolecular Materials Science I. (4) Lec-
ture, four hours; discussion, one hour; outside study, seven hours. Overview of chemical and physical foun-
dations of biomolecular materials science that con-
cern materials aspects of molecular biology, cell bi-
ology, and bioengineering. Understanding of different types of interactions that exist between biomolecules, such as van der Waals interactions, entropically mod-
eluated electrostatic interactions, hydrophobic interac-
tions, hydrogenation and solvation interactions, formed-
mediated interactions, depletion interactions, molec-
ular recognition, and others. Illustration of these ideas using examples from bioengineering and biomedical engineering. Students should be able to make simple cal-
culations and estimates that allow them to engage broad spectrum of bioengineering problems, such as those in drug and gene delivery and tissue engi-
...
neering. May be taken independently for credit. Concurrently scheduled with course C139B. 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 112 and 156B or 156A. Introduction to physical structures of cell biology. Review and application of continuum mechanics and statistical mechanics to define mechanically. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Material behavior, including chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

CM252. Microelectromechanical Systems (MEMS) Design. (4) Lec-

C270. Energy-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Enforced requisites: Life Sciences 2, Physics 1C. Introduction to thera-
putations 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 C179. Letter grading.

CM278. Introduction to Biomaterials. (4) (Same as Materials Science CM280.) Lecture, three hours; discussion, two hours; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, and 20L, or Materials Science 32A-B-C. Introduction to design principles and engineering concepts used in design and manufacture of materials for minimally invasive surgical applications. Coverage of FDA regulatory policy and surgical procedures. Topics include optical devices, electrosurgical and laser energy delivery devices, la-

C279. Biomaterials-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Requisite: course CM278. In-depth exploration of host cellular response to biomaterials: vascular response, inter-

C283. Targeted Drug Delivery and Controlled Drug Release. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20L. New therapeutic approaches require comprehensive understanding of modern biology, physiology, biomaterials, and engineering. Targeted de-

areas covered in detail. Integrated anatomy laboratory includes brain dissections and overview of tools for MRI analysis. Letter grading.

Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Life Sciences 2, Physics 1C. Introduction to thera-
putations 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 C179. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4) (Same as Chemical Engineering CM245.) Lecture, four hours; discussion, one hour; outside study, ten hours. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, metabolic pathways, manipulation of gene expression, direct mutagenesis and protein engineering, DNA-based diagnostics and DNA microar-
arious types of energy-tissue interactions. Concurrently scheduled with course C170L. Letter grading.

C277. 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, electrosurgical and laser energy delivery devices, lapa-

C254. Applied Tissue Engineering: Clinical and Industrial Perspective. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Re-

C247. Applied Tissue Engineering: Clinical and Industrial Perspective. (4) Lecture, three hours; discussion, two hours; outside study, four hours. Emphasis on principles and applications. Topics include biomaterials selection, cell source, delivery methods, FDA approval processes, and physical/ chemical and biological testing. Case studies include skin and artifici-

C252L. Concurrency scheduled with course CM252. Letter grading.

C252A-M261B-M261C. Evaluation of Research Literature in Neuroengineering. (2-2-2) (Same as Electrical and Computer Engineering M255 and Neuroscience M256.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A-B-C or Biological Sciences 1 or 2. Overview of current research in neuroengineering, introduction to principles and technologies of biocompatible and neural signal processing and separations for biotechnology. Helps students become sufficiently fluent with fluid mechanics vo-
cularization and design and microfluid-

C250B. Mechanical Biotechnology for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, nine hours. Enforced requisites: course CM202, Chemistry 2OA, 2OB, 2OL, Life Sciences 1 or 2. Overview of central topics of tissue engineering, with focus on how to build artificial tissues into regulatory viable products. Topics include biomaterials selection, cell source, delivery methods, FDA approval processes, and physical/ chemical and biological testing. Case studies include skin and artifici-

C246. Introduction to Biologic Imaging. (4) (Same as Pharmacology M248 and Physics and Bi-

C228. Biomedical Interfaces. (4) Lecture, four hours; laboratory, eight hours. Requisite: course CM178 or CM248. Function, utility, and reactivity of bio-

C224. The intersection of molecular biology and medicine, including imaging physics, instrumen-
tation, image processing, and applications of imaging for range of modalities. Practical experience delivered through series of imaging laboratories. Letter grading.

C220. Micro electromechanical systems (MEMS) Fabrication. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisites: course 110. Introduction to Navier-Stokes equations, assumptions, and simplifications. Analytical framework for calculating simple flows and nu-

C225. Fluid-Particle and Fluid-Structure Interactions in Microflows. (4) Lecture, four hours; labora-
tory, one hour; outside study, seven hours. Enforced requisites: Chemistry 30B, Physics 1B or 5C. Introduction to principles and engineering concepts used in design and medical and dental applications, with emphasis on understanding fundamental mechanisms underlying various types of energy-tissue interactions. Concurrently scheduled with course C179. Letter grading.
livery of genes and drugs and their controlled release are important in treatment of challenging diseases and relevant to tissue engineering and regenerative medicine. Drug pharmacodynamics and clinical pharmacokinetics. Application of engineering principles (diffusion, transport) to important problems in drug distribution and delivery to establish rationale for design and development of novel drug delivery systems that can provide spatial and temporal control of drug release. Introduction to tissues with special attention to structural and interfacial properties. Exploration of both chemistry of materials and physical presentation of devices and compounds used in delivery and release. Concurrently scheduled with course CM185. Letter grading.

M284. Functional Neuroimaging: Techniques and Applications. (3) Same as Neuroscience M285, Physics and Biology in Medicine M285, Psychiatry M285, and Psychology M278.) Lecture, three hours. In-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, exponential 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 or implementation of functional MRI experiment. S/U or letter grading.

C285. Introduction to Tissue Engineering. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: course CM102 or CM202, Chemistry M171A. Principles and applications of tissue engineering and systems biology approach to regenerate tissues and organs. Guiding principles for proper selection of three basic components for tissue engineering: cells, scaffolds, and molecular signals. Concurrently scheduled with course CM185. Letter grading.

CM286. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Computer Science CM267.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic biosystems modeling and computer simulation methods for studying the dynamical and/or systems biology scientific questions. Emphasis on mathematical principles of biology and physical sciences with engineering approach to regenerate tissues and organs. S/U grading.

CM287. Research Communication in Computational and Systems Biology. (4) (Same as Computer Science CM267.) Lecture, four hours; outside study, eight hours. Requisites: course CM286. 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 appropriate to student interests and capabilities. Critiques of original presentations and written progress reports explain how to proceed with search for research results. Major emphasis on effective research reporting, both oral and written. Preparation for written and oral presentations. Concurrently scheduled with course CM187. Letter grading.

295A—295Z. Seminars: Research Topics in Bioengineering. (2 each) Seminar, two hours; outside study, four hours. Concurrently scheduled with courses in Bioengineering graduate student. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in research specialty of faculty member teaching course. Student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295A. Biomaterial Research; 295B. Biomaterials and Tissue Engineering Research; 295C. Biologically Inspired Systems Research; 295D. Hybrid Device Research; 295E. Molecular Cell Bioengineering Research; 295F. Biopolymer Materials and Chemistry; 295G. Biomicrofluidics and Bionanotechnology Research; 295H. Biomimetic System Research; 295J. Neural Tissue Engineering and Regenerative Medicine; 295K. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Computer Science M296D and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisites: Electrical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Control system, multicompartamental, noncompartmental, and input/output models. Linear and nonlinear. Reliance on model applications, limitations, and relevance in biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

295B. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Biostatistics M270, Computer Science M296B, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisites: course CM296A or M296A or Biostatistics 220. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination and model selection theory and algorithms for designing optimal experiments for developing and quantifying models, with special focus on optimal sampling schedule design for kinetic models. Explo- ratory use of software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

295C. Advanced Topics and Research in Biomedical Systems Modeling and Computing. (4) (Same as Computer Science M296D and Medicine M270E.) Lecture, four hours; outside study, eight hours. Requisite: course M296B. Research techniques and experience on special topics involving modeling, model development and model/computing in biomedical and medical sciences. Review and critique of literature. Research problem searching and formulation. Individual MS- and PhD-level project training. Letter grading.

295D. Introduction to Computational Cardiology. (4) (Same as Computer Science M296D.) Lecture, four hours; outside study, eight hours. Requisite: course M296B. Research techniques and experience on special topics involving modeling, model development and model/computing in biomedical and medical sciences. Review and critique of literature. Research problem searching and formulation. Individual MS- and PhD-level project training. Letter grading.

295E. Special Studies in Bioengineering. (4) Lecture, four hours; outside study, eight hours. Study of selected topics in bioengineering taught by resident and visiting faculty members. May be repeated for credit. Letter grading.

295F. Seminar in Bioengineering Topics. (2) Seminar, two hours; outside study, four hours. Designed for graduate bioengineering students. Seminar by leading academic and industrial bioengineers from UCLA, other universities, and bioengineering companies such as Baxter, Amgen, Medtronics, and Guidant on development and application of recent technolog- ical advances in discipline. Exploration of cutting-edge developments as challenges in wound healing models, stem cell biology, angiogenesis, signal transduc- tion, gene therapy, cDNA microarray technology, biotechnological cultivation, nano- and micro-hybrid devices, scaffold engineering, and bioinformatics. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours. Limited to graduate bioengineering students. Required of all de- partmental teaching assistants. May be taken concurrently while holding TA appointment. Seminar on communicating bioengineering and biomedical engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of visual aids, guiding, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 6) Tutorial, to be arranged. Limited to graduate bioengineering students. Petition forms to request enrollment may be obtained from program office. Supervised in- vestigation of advanced technical problems. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate bioengineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. Preparation for pho- netic examination, including preliminary review on dissertation. S/U grading.

598. Research and for Preparation of MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate bioengineering students. Supervised independent research for MS candidates, including thesis prospectus. S/U grading.

599. Research and for Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. Usually taken after students have been advanced to candidacy. S/U grading.
tion. 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 seek bioinformatics graduates for applied research on diseases and drug discovery. Medical centers are also increasingly hiring bioinformatics graduates as genomics data become important in medical research and clinical applications.

Graduate Studies

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Bioinformatics Program offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Bioinformatics.

Bioinformatics

Graduate Courses

201. Seminar: Advanced Methods in Computational Biology. (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. (Formerly numbered M202.) Seminar, two hours; discussion, two hours. Concrete examples of how biological questions about genomics data map to and are solved by methodologies from other disciplines, including statistics, computer science, and mathematics. May be repeated for credit. S/U or letter grading.

M221. Introduction to Bioinformatics. (Formerly numbered M260A.) (Same as Chemistry CM260B, 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. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. S/U or letter grading.

M222. Algorithms in Bioinformatics. (Formerly numbered M260B.) (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. (Formerly numbered M202.) Seminar, one hour; 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 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.

M224. Computational Genetics. (Formerly numbered M260C.) (Same as Bioinformatics CM271 and Statistics M254.) 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 techniques from statistics and computer science. Letter grading.

M225. Computational Methods in Genomics. (Formerly numbered M265.) (Same as Computer Science M225 and Human Genetics M265.) Lecture, two and one half hours; discussion and one half hour outside study, seven hours. Introduction to computational approaches in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary research in genomics 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 technologies. Computational methods include those from statistics and computer science. Letter grading.

M226. Machine Learning in Bioinformatics. (Formerly numbered M266.) (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 131A, 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. Biology has become data-intensive science. Bottle necing in being able to make sense of biological processes has shifted from data generation to statistical models and inference algorithms that can analyze these datasets. Statistical machine learning provides important toolkit in this endeavor. Biological datasets offer new challenges to field of machine learning. Examination of statistical and computational aspects of machine learning techniques and their application to key biological questions. Letter grading.

275A. Applied Bioinformatics Lab for Biologists: Intermediate. (Formerly numbered M275A.) Laboratory, six hours (five weeks). Introduction to contemporary methods and techniques in bioinformatics that are used to analyze high-throughput genomic data. Topics include introduction to UNIX, Next Generation Sequencing (NGS) data analysis, ChIP-seq, BS-seq and RNA-seq, and others. S/U grading.

275B. Applied Bioinformatics Lab for Biologists: Intermediate. (Formerly numbered M275B.) Seminar, three hours. Discussion, three hours. Advanced study and analysis of current research topics in bioinformatics. Discussion of current research literature and application of computational tools and techniques to key research challenges. Focus on solving interdisciplinary problems using computational tools and techniques. Preparation: course M275A. May be repeated for credit. S/U grading.

275C. Directed Individual Study or Research in Bioinformatics. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

275D. Directed Individual Study or Research in Bioinformatics. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

275E. Directed Individual Study or Research in Bioinformatics. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

275F. Directed Individual Study or Research in Bioinformatics. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.
Scope and Objectives

The biological chemistry graduate program prepares students for careers as independent researchers, scientists and scholars. Laboratory research is the central element. Biological chemistry has grown to include studies of cellular, molecular, and developmental biology, molecular genetics and genetic engineering, and many aspects of the health sciences. The research activities of the department include these areas as well as the classic topics of metabolism, bioenergetics, and biomolecular structure. Courses and seminar programs are designed to provide students with the necessary background and approach to encourage their continuing growth in these rapidly changing areas of science.

Interaction with other graduate programs provides access to scientists in a variety of related disciplines. Through its primary affiliation with the Geffen School of Medicine, the Department of Biological Chemistry is also involved in the basic education of students who will be physicians, dentists, and other health professionals. Many of these students become involved in laboratory research in the department. In part because of this breadth of experience students find careers in many aspects of basic and applied scientific research and education. The department emphasizes study for the PhD, but candidates for the MS degree may be accepted under special circumstances.

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 Biological Chemistry offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Biological Chemistry. Applicants interested in studying with faculty in the department are encouraged to apply to an appropriate home area in Graduate Programs in Bioscience.

Biological Chemistry

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) Directed research or investigation under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated for credit. P/NP grading.

Upper-Division Courses

M140. Cancer Cell Biology. (5) (Same as Molecular, Cell, and Developmental Biology M140.) Lecture, three hours; discussion, one hour. Requisite: Molecular, Cell, and Developmental Biology 165A. Cancer causes and genetics. Effects of cell transformation on cell growth and metabolism. Altered cell cycle, metabolism, and differentiation pathways in cancer cells. Tumor microenvironment contributions to cancer malignancy, including angiogenesis, metastasis, and immune system evasion. Letter grading. 194. Research Group Seminars: Biological Chemistry. (2) Seminar, two hours. 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. Culminating paper required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

201A-201B. Biological Chemistry. (5-5) Lecture, five hours. Preparation: organic chemistry. Open to nonmatriculated 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 nonmatriculated 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 projects 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 students as well as students from biological sciences and medical school. Introduction to current topics in bioinformatics, genomics, and computational genomics 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 structure, human structural variation, model organisms, and genomic technologies. 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 embryogenesis and early embryogenesis, 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 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.

248. Tumor Cell Biology. (2) Seminar, one hour per month. Limited to students selected for one of following National Institutes of Health (NIH) training programs: tumor cell immunology and training in immuno-targeted therapy for cancer. Formal presentation of research to other class members and faculty. Questions are asked during and after each presentation. Faculty provide each speaker with feedback on effectiveness of presentation. S/U grading.

251A-251B-251C. Seminars: Transcriptional Regulation. (2–2–2) Seminar, two hours. Advanced courses on mechanisms of transcription in both eukaryotes and prokaryotes intended for students actively working or highly interested in transcription. S/U grading.

M255. Mitochondria in Medicine, Biology, and Chemistry. (1) (Same as Chemistry CM255.) Seminar, two hours every other week. Open to undergraduate and graduate science majors considering or currently conducting research in areas related to mitochondria. Large number of physiological and pathophysiolog-
ical processes involve mitochondrial function and dysfunction. Focus on understanding how mitochondrial metabolism, form, and function impact health and disease. Physiology and cell biology of healthy and dysfunctional mitochondria critically assessed at subcellular, cellular, tissue, and organismal levels. Topics include in-depth analyses of literature and critical evaluation of experimental design and methods of current research. May be repeated for credit. S/U grading.

M259. Mechanisms of Gene Regulation. (4) Same as Chemistry CM259. Lecture. Four hours. Requisite: Chemistry 153B. RNA polymerase structures and mechanisms; promoter recognition and transcription cycle; mechanisms of activation; transcriptional poising and elongation control; Mediator of transcription; chromatin remodeling and modification; epigenetic regulation; cotranscriptional and transcription-coupled RNA processing; impact of transcription on mRNA processing and stability; nuclear export of mRNA. S/U or letter grading.

266A-266B-266C. Seminars: Cell, Stem Cell, and Developmental Biology. (2–2–2) Seminar, two hours. Open to undergraduate students with consent of instructor. Advanced courses in cell, stem cell, and developmental biology intended for graduate students working or rotating in laboratories of new cell and development biology home area. S/U grading.

296. Research Seminar Series in Biological Chemistry. (1) Seminar, one hour. Limited to biological chemistry students. Research presentations from second through fourth-year graduate students related to their research. Designed to be highly interactive, with time for questions from fellow graduate students, postdoctoral students, and faculty members during and after presentations. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: 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 and Research. (2 to 12) Tutorial, to be arranged. S/U or letter grading.

597. Preparation for Examinations. (2 to 4) Tutorial, to be arranged. Individual study for PhD qualifying examinations or MS comprehensive examination. S/U grading.


Professors

Douglas S. Bell, MD, PhD, in Residence
Thomas Chou, PhD
Robert M. Elashoff, PhD
Eleazar Eskin, PhD
Kenneth L. Lange, PhD (Maxine and Eugene Rosenfield Endowed Professor of Computational Genetist)
Alexander J. Levine, PhD
Gang Li, PhD
James O. Lloyd-Smith, PhD
Michael E. Phelps, PhD (Norton Simon Professor of Biophysics)
Steven Plantaditi, PhD, in Residence
Marcus L. Roper, PhD
Van M. Savage, PhD
Janet S. Sinhaheimer, PhD
Eric M. Sobel, PhD, in Residence
Marc A. Suchard, MD, PhD

Professors Emeriti

Abdelmonem A. Alfli, PhD
Henry S.C. Huang, DSc
Robert I. Jennrich, PhD
Elliot M. Landaw, MD, PhD
Zhlin Qu, PhD, in Residence

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

Adjunct Assistant Professor

Mary E. Sehl, MD, PhD

Scope and Objectives

As biology advances rapidly in quantitative research methods, both the need for and possibility of closely associated theoretical research increases. On numerous medical and medical science frontiers—such as genetics, molecular biology, oncology, pharmacology, neurosciences, and physiology—biomathematics is contributing both in its basic research and the development of specialized computer software to support investigation and healthcare. UCLA has one of the few departments in this rapidly evolving field.

The department orientation is away from abstract modeling and toward theoretical research vital to the advancement of current biomedical research frontiers. The doctoral program reflects this in requirements for advanced training in a biomedical research specialty and for the mathematical and computing skills required to contend realistically with complex phenomena encountered in biology and medicine. The art of biomathematical research is developed individually from the first year on. The master’s program adapts to the many paths of discovery at UCLA. P/NP grading.

106. Introduction to Cellular Modeling. (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. 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 neurobiological 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 training in the medical curriculum and postgraduate medical programs.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Biomathematics 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 Cellular Modeling. (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. 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 neurobiological 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

Biology

See Ecology and Evolutionary Biology

Biomathematics

David Geffen School of Medicine

5303 Life Sciences Box 951766

Los Angeles, CA 90095-1766

Biomathematics 310-825-5554 Department e-mail

Eleazar Eskin, PhD, Chair
Robert M. Elashoff, PhD, Vice Chair
Kenneth L. Lange, PhD, Vice Chair
Eric M. Sobel, PhD, Vice Chair

Kenneth L. Lange, PhD (Maxine and Eugene Rosenfield Endowed Professor of Computational Genetist)
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, 30 minutes. Second course in bio- mathematical methods. Topics include randomization methods, intermediate experimental design, contingency tables, analysis of variance, multiple regression, linear regression, nonlinear regression, methods of classification, model checking, basic mathematical models including compartment models, and statistical computer simulation. 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.

190A-H. Honors Research in Biomathematics. (4-4) Tutorial, to be arranged. Limited to juniors/senior. 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. As- signed reading and tangible evidence of mastery of subject material required. Laboratory reports required. 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


201. Deterministic Models in Biology. (4) Lecture, four hours; laboratory, two hours. Preparation: knowledge of linear algebra and differential equations. Examination of conditions under which deterministic approaches can be employed and conditions where they may be expected to fail. Topics include compartmental analysis, enzyme kinetics, physiological control systems, and cellular/animal population models. S/U or letter grading.


204. Biomedical Data Analysis. (4) Lecture, four hours. Quantity and quality of observations have been greatly affected by present-day extensive use of computers. Problem-oriented study of latest methods in statistical data analysis and use of such arising in labor- atory and clinical research. S/U or letter grading.


207A. Theoretical Genetic Modeling. (4) Same as Biostatistics M203 and Human Genetics M211.) Lecture, three hours; laboratory, one hour. Preparation: Biostatistics 200B, 202B (may be taken concurrently) or equivalent coursework or consent of Instructor. Coverage of deterministic and stochastic aspects of human genetics not required. Topics include statistical methodology underlying genetic analysis of both quantitative and qualitative complex traits. Laboratory for hands-on computer analysis of genetic data; labora- tory reports required. Course complements M207A; students may take either and are encouraged to take both. S/U or letter grading.

207B. Applied Genetic Modeling. (4) Same as Biostatistics M203.) Lecture, four hours; laboratory, two hours. Preparation: introductory ordinary partial differential equations, programming experience. Introduction to biochemical bases for nerve function and mathe- matical and computational studies; topics appropriate for physicists, engineers, and mathematicians. Survey of current leading research areas and software systems. S/U or letter grading.

208A. Modeling in Neurobiology for Mathematicians. (4) Lecture, four hours; laboratory, two hours. Preparation: beginning ordinary partial differential equations, Walsh functions. 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. S/U or letter grading.

208B. Modeling in Neurobiology for Biologists. (4) Lecture, four hours; laboratory, two hours. Preparation: lower division calculus, some elementary program- ming 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 subroutines. Survey of current leading research areas. S/U or letter grading.

209. Mechanisms and Modeling in Bioanalytical Assays. (4) Lecture, three hours. Preparation: knowledge of basic physical chemistry and ordinary differential equations. Recommended prerequisite: course 201. Review of basic physical mechanisms and mathemat- ical analyses used in common bioanalytical as- says, Topics include chromatography, electrophore- sis, blotting, DNA sequencing, PCR, SELEX, ChIP- sequencing, FACS, FRAP, and FISH. S/U or letter grading.


M211. Mathematical and Statistical Phylogenetics. (4) Same as Biostatistics M239 and Human Genetics M211.) Lecture, three hours; laboratory, one hour. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolu- tionary tree reconstruction methods, studies of viral evolution, tophographic models, and coalescent methods. Examples from evolutionary biology and medicine. Laboratory for hands-on computer analysis of sequence data. S/U or letter grading.

212. Nonlinear Dynamics in Biological Systems. (4) Lecture, four hours. Preparation: three hours of both. Re- quired preparation: elementary knowledge of ordinary differential equations, partial differential equations, and computer programming. Mathematical bases of nonlinear dynamics and self-organization in temporal and spatial systems, with applications to biological systems. Topics range from bifurcation theory in low dimension to pattern formation in high dimension. Use of biologically important examples to illustrate applications of these dynamics, including gene regu- lation and protein-protein interaction networks, glyco- lytic and metabolic oscillations, circadian rhythms, cell cycle controls, intracellular synthesis, pattern forma- tion in morphogenesis, and action potential models and electrical wave formation and propaga- tion in nerve and cardiac systems. S/U or letter grading.

213. Modeling Vascular Networks. (4) Lecture, four hours. Recommended preparation: calculus, differential equations, complex analysis, elementary knowledge of partial differential equations. Introduction to equations that describe fluid flow dynamics and branching, and hierarchical networks to provide survey of models for structure and flow of vascular systems. Vascular systems are nearly ubiquitous in nature, occur in all organisms, plants, and animals, and are of great importance in medicine. Coverage of applications to tumor growth and angio- genesis, sleep, allometric scaling, and other phe- nomena. S/U or letter grading.


230. Computed Tomography: Theory and Appli- cations. (4) Same as Physics and Biology in Medi- cine M230.) Lecture, four hours. Computed tomog- raphy is a two-dimensional imaging technique being widely used in radiology and is becoming active re- search area in biomedicine. Basic principles of com- puted tomography (CT), various reconstruction algo- rithms, special characteristics of CT, physics in CT, and various biomedical applications. S/U or letter grading.

M231. Statistical Methods for Categorical Data. (4) Same as Biostatistics M232.) Lecture, three hours; discussion, one hour. Requirement: Biostatistics 100B or 110B, Statistics 100B. Statistical techniques for analysis of categorical data; discussion and illus- tration of their applications and limitations. S/U or letter grading.

M234. Applied Bayesian Inference. (4) (Same as Biostatistics M234.) Lecture, three hours; laboratory, one hour. Requisite: Biostatistics 200B or another substantial regression course. Bayesian approach to statistical inference, with emphasis on biostatistical applications rather than mathematical theory. Topics include large sample Bayes inference from likelihoods, noninformative and conjugate priors, empirical Bayes, Bayesian approaches to linear and nonlinear regression, model selection, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.


259. Controversies in Clinical Trials. (2) Lecture, one hour; discussion, one hour. Preparation: 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 evaluate trial design and pitfalls. S/U or letter grading.

M260A-M260B. Methodology in Clinical Research I, II. (Same as Biostatistics M260A-M260B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Requisites: courses 170A, 265A. Course M260A is requisite to M260B. Presentation, discussion, and analysis of major technical practices 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 research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M261. Responsible Conduct of Research Involving Humans. (2) (Same as Medicine 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 research, including ethics, research integrity, and legal issues. S/U or letter grading.

M262. Communication of Science. (2) (Same as Psychiatry M262.) Lecture, two hours; discussion, one hour. Preparation: 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.

M263. Clinical Pharmacology. (2) (Same as Medicine 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 as they relate to the 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. Preparation: presentation of research project development, including protocol development, data collection, quality control, clinical/electronic health record (EHR) data, structuring data for analysis, and data management. In-class practicals using actual studies and datasets, and student presentations. Letter grading.

265A. Data Analysis Strategies I. (4) Lecture, two hours; laboratory, two hours. Preparation: MD or PhD degree and enrollment in Biostatistics 170A. Designed to provide students with hands-on experience developing and testing hypotheses using various types of databases. Topics include developing testable hypothesis, data management, and analysis strategies and written presentation of finding. 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. Advanced Biostatistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 266A. Continuation of course 266A. Some traditional multiple-regression methods, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

2670. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Biotechnology M2670.) Lecture, three hours; outside activities, one hour. Preparation: Biostatistics 200B or a course in probability and statistical methods. Theory and applications for designing optimal experiments for developing and quantifying new technologies, with special focus on optimal sampling schedule design for kinetic models. Exploration of new methods. Letter grading.

M271. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics M221 and Statistics M236A.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requisite: Bioinformatics M221I 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, profile motif discovery, comparative genomics, and biological network inference. 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 M236E.) Lecture, three hours; laboratory, one hour. Requisite: Biostatistics 202B or another substantial regression course. Analysis of continuous responses for which multiple normal models may be assumed. Students learn how to think about longitudinal data, plot data, and how to specify mean and variance of longitudinal response. Advanced topics include introductions to clustered, multivariate, and discrete longitudinal data. S/U or letter grading.

M284. Methodology of Clinical Trials. (4) (Same as Biostatistics 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 late randomization 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.

596. Directed Individual Study or Research in Biostatistics. (2 to 12) Tutorial, to be arranged. Individual study on topics not yet covered by offerings of department. May be repeated for credit with topic change. S/U or letter grading.

597. Preparation for MS or PhD Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Individual study. S/U grading.


BIOMEDICAL PHYSICS

See Physics and Biology in Medicine
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 5HB (or an approved alternative course) and Molecular, Cell, and Developmental Biology 60.

Required Upper-Division Courses (24 units): (1) Sixteen units (four courses) of approved laboratory research through either course 198 or 199 (or an approved alternative course); (2) one history of science or philosophy of science course selected from History 179A, 179B, 180A, Neurobiology M169, Philosophy 124, 125, 137, or 155 (or an approved alternative course); and (3) Biomedical Research 193H and 194H, or the required journal club seminars (such as Chemistry and Biochemistry 193A) for students in the Integrated and Interdisciplinary Undergraduate Research Program, MARC, or UC LEADS.

Students are expected to file a senior research thesis after completion of their 16 research units and must participate in at least one conference in which they present their research. Up to 8 units of research may be applied toward departmental requirements for the major. The research project and 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. Lecture, three hours; discussion, one hour. Requisite: course SHA. 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.

SHB. Biomedical Research: Essential Skills and Concepts. (4) Lecture, three hours; discussion, one hour. Requisite: course SHA. 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. Students can investigate one or more laboratories on campus and presentation of brief synopsis of single research project from one laboratory. Letter grading.

10H. Research Training in Genes, Genetics, and Genomics. (4) Lecture; six hours; computer laboratory, 90 minutes. Designed for students with a grade of less than 3.0 in any minor course or a cumulative grade-point average of less than 3.0 are subject to dismissal from the minor.

109H. Research Training in Genes, Genetics, and Genomics. (6) Lecture, 90 minutes; laboratory, six hours; computer laboratory, 90 minutes. Limited to 30 students. Basic training in biological research, including techniques in genetics, model organism, bioinformatics, functional genomics, electron microscopy. Part of Undergraduate Research Consortium in Functional Genomics sponsored by Howard Hughes Medical Institute Professors Program. Letter grading.

109HC. Honors Contracts. (1) Seminar, three hours. Limited to Biomedical Research minor students. Preparation of oral presentations and/or research based on studies in selected research at UCLA. May be repeated for credit. Letter grading.

193H. Journal Club Seminars: Current Topics in Biomedical Research. (2) Seminar, three hours. Limited to Biomedical Research minor students. Preparation of oral presentations and/or research based on studies in selected research at UCLA. May be repeated for credit. Letter grading.

194H. Research Group Seminars: Data Presentation in Biomedical Research. (2) Seminar, three hours. Requisite: course 193H. Limited to Biomedical Research minor students. Preparation of oral presentations based on student research at UCLA. May be repeated for credit. Letter grading.

199. Directed Biomedical Research. (4) Tutorial, 12 hours. Limited to Biomedical Research minor students. Supervised individual research under guidance of faculty mentor. Culminating report describing progress and signed by student and faculty mentor required. May be repeated for credit. Individual contract required. Letter grading.

Upper-Division Courses
100HA-100HB-100HC. Advanced Research in Genes, Genetics, and Genomics. (4–4–4) Formerly numbered Life Science 100A-100B-100C. Lecture, two hours; laboratory, 10 hours. Requisite: course 10H. Course 100HA is requisite to 100HB, which is requisite to 100HC. Designed for undergraduates who are committed to pursuing research. Advanced research training in genetics, cell and developmental biology, bioinformatics, functional genomics. Techniques include electron microscopy, other light microscopies, immunohistochemistry. Part of Undergraduate Research Consortium in Functional Genomics sponsored by Howard Hughes Medical Institute Professors Program. Letter grading.

189HC. Honors Contracts. (1) Seminar, 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 and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

199HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

199HL. Honors Contracts. (1) Seminar, three hours. Limited to Biomedical Research minor students. Preparation of oral presentations based on studies in selected research at UCLA. May be repeated for credit. Letter grading.

BIOSTATISTICS
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Shin Horvath, PhD, ScD
Gang Li, PhD
Hongliu Liu, PhD
Christina M. Ramirez, PhD
Damla Senturk, PhD, In Residence
Janet S. Sinhsheimer, PhD
Marc A. Suchard, PhD

Kelsey C. Martin, MD, PhD (Biological Chemistry, Psychiatry and Biobehavioral Sciences)
Caius G. Radu, MD (Molecular and Medical Pharmacology)
Stephen T. Smale, PhD (Microbiology, Immunology, and Molecular Genetics)
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 work 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 biological sciences. Topics include distributions, tests of hypotheses, estimation, types of error, significance and confidence levels, sample size. P/NP or letter grading.

100B. Introduction to Biostatistics. (4) Lecture, three hours; discussion; one hour; laboratory, one hour. Requisite: course 100A. Not open for credit to students with credit for course 110B. Introduction to analysis of variance, linear regression, and correlation analysis. P/NP or letter grading.

197. Individual Studies in Biostatistics. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. 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. 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, presentation of data, and statistical aspects of design of studies. Special emphasis is given to application of statistical methods to public health, medical, biological, and health sciences. Interpretation and communication of statistical findings is stressed. Focus on methodology, applications, and concepts rather than mathematical statistics or probability theory. S/U or letter grading.


200C. Methods in Biostatistics C. (4) Lecture, three hours; discussion; one hour; laboratory, one hour. Preferred preparation: courses 200A, 200B, and previous coursework in linear algebra. Designed for students pursuing graduate degrees in biostatistics. Generalized linear models, description, and analysis of discrete data with applications to public health. Students are trained to identify different types of discrete data; use statistical software package STATA to manage, summarize, and analyze data; use appropriate statistical techniques for analyzing public health data using generalized linear models; apply generalized estimating equations for analyzing longitudinal data; and write formal statistical report of data analysis for public health researcher. S/U or letter grading.

201A. Topics in Applied Regression. (4) Lecture, three hours; discussion; one hour; laboratory, one hour. Requisites: 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. Requisite: course 201A. Further studies in multiple linear regression, including applied multiple regression models, regression model assessment, factorial and repeated measure analysis of variance models, nonlinear regression, logistic regression, propensity scores, matching versus stratification, Poisson regression, and classification trees. Applications to biomedical and public health scientific problems. Letter grading.

202A-202B. Mathematical Statistics A, B. (4-4) Lecture, three hours; discussion; one hour. Designed primarily for students pursuing DrPh, MS, and PhD degrees in biostatistics. Introduction to main principles of probability, random variables, discrete and continuous distributions, multivariate distributions, and distributions of functions of random variables. S/U or letter grading. 202B. Requisite: course 202A.

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.

M20B. Introduction to Demographic Methods. (4) (Same as Community Health Sciences M20B, Economics M20B, and 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.

M210. Statistical Methods for Categorical Data. (4) (Same as Biomathematics M231.) Lecture, three hours; discussion, one hour. Requisites: course 100B or 110B, Statistics 100B. Statistical techniques for analysis of categorical data; discussion and illustration of their applications and limitations. S/U or letter grading.


231. Statistical Power and Sample Size Methods for Health Research. (4) Lecture, three hours; discussion, one hour. Requisites: 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 design and analysis of clinical trials. Discussion of multiple endpoints. S/U or letter grading.


M234. Applied Bayesian Inference. (4) (Same as Biomathematics M234.) Lecture, three hours; laboratory, one hour. Requisite: course 200B or another substantial statistical course. Bayesian approach to statistical inference, with emphasis on biological applications and concepts rather than mathematical theory. Topics include large sample Bayes inference from likelihood and empirical Bayes, Bayesian approaches to linear and non-linear regression, model selection, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.

M235. Causal Inference. (4) (Same as Psychiatry M235.) Lecture, three hours; discussion, one hour. Requisite: course 202A or 202B, or equivalent. Introduction of various methods for exploring, modeling, and analyzing spatially referenced datasets, with emphasis on environmental natural sciences and public health. Theoretical and foundational discussions (including comparison of different methods in practice, practical applications and examples demonstrated using open-source statistical software) to R and datasets from diverse fields such as public health, environmental sciences, and economics. Letter grading.

M236. Longitudinal Data. (4) (Same as Biomathematics M236.) Lecture, three hours; laboratory, one hour. Requisite: course 200B or another substantial regression course. Analysis of longitudinal data, models for longitudinal data, 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). Theoretical models in molecular evolution, with special emphasis on applications to large sample theory in biostatistics. Topics include evolutionary tree reconstruction, studies of viral evolution, phylogeny, and coalescent approaches to different types in biomedical sciences. Letter grading.

M238. Methodology of Clinical Trials. (4) (Same as Biomathematics M238.) Lecture, three hours; discussion, one hour. Requisite: course 200B. Introductory material on design and analysis of clinical trials, including adaptive designs and early and late randomized 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 special emphasis on applications to large sample theory in biostatistics. Topics include evolutionary tree reconstruction, studies of viral evolution, phylogeny, and coalescent approaches to different types in biomedical sciences. Letter grading.
linear regression, dealing with constraints, robust estimation, and general maximum likelihood methods. Letter grading.

285. Advanced Topics: Recent Developments. (4) Lecture, three hours; discussion, one hour. Advanced topics based on current research in biostatistics. Topics, to be announced. May be repeated for credit. Letter grading.

296. Advanced Topics: Research Topics in Biostatistics. (1 to 4) Seminar, two hours. Advanced study and analysis of current topics in biostatistics. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

375. Teaching Apprentice Practicum, (1 to 4) Seminar, to be arranged. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. Apprentices meet with faculty and other apprenticeship 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. May be repeated for credit. S/U 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, four hours. Designed for doctoral students. Development of expertise in 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.

409. Doctoral Statistical Consulting Seminar. (2) Seminar, one hour; laboratory. Three hours. Designed for doctoral students. Development of expertise in 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 bioassay 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 surveys. 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, 402A, 402C. Students meet weekly with their adviser and also work independently on their proposed projects. Course fosters ability of students to select relevant design and analysis techniques, synthesize knowledge, and apply insights to address public health 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 guided studies under direct faculty supervision. Only 4 units may be applied toward MPH and MS minimum total course requirement. May be repeated for credit. Letter grading.

597. Preparation for Master’s Comprehensive or Doctoral Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

Scope and Objectives
The Department of Chemical and Biomolecular Engineering conducts undergraduate and graduate programs in 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. The undergraduate curriculum leads to a BS in Chemical Engineering and includes the standard core curriculum, as well as biomedical engineering, biotechnology, bio-engineering, environmental engineering, and semiconductor engineering options. The department also offers graduate courses and research leading to MS and PhD degrees. Both graduate programs 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.

Chemical and Biomolecular Engineering / 221

Panagiotis D. Christofides, PhD (William D. Van Vorst Professor of Chemical Engineering Education)
Yoram Cohen, PhD
James F. Davis, PhD
Vijay K. Dhir, PhD
Alexandros Kademessianis, PhD
Yunfeng Lu, PhD
Vasilios I. Manousiouthakis, PhD
Harold G. Monbouquette, PhD
Stanley J. Osher, PhD
Philippe Sautet, PhD
Tatiana Segura, PhD
Yi Tang, PhD

Professors Emeriti
Louis J. Ighraro, PhD (Nobel laureate, Jerome J. Belsky Professor Emeritus of Medical Research)
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
Vincent L. Vilkov, PhD
A.R. Frank Wazzan, PhD, Dean Emeritus

Assistant Professors
Yvonne Y. Chen, PhD
Carlos G. Morales-Guio, PhD
Junyoung Park, PhD
Dante S. Simonetti, PhD
Samravaya Srivastava, PhD
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 macro-scale analysis and design of chemical and biochemical processes and products
- Design of 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
- Identification, formulation, and solution of complex chemical and biological engineering problems
- Function as a productive member of a multidisciplinary team
- Effective oral and written communication

**Chemical Engineering Core Option**

**Preparation for the Major**

**Required:** Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and two elective courses (8 units) from Chemical Engineering 110, C111, C112, 113, CM114, C115, C116, C118, C119, C121, C125, C128, C135, C140.

For information on UC, school, and general education requirements, see the College and Schools chapter.

**Biomedical Engineering Option**

**Preparation for the Major**

**Required:** Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL.

**The Major**

**Required:** Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109; 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, C111, C112, 113, CM114, C115, C116, C118, C119, C121, C125, C128, C135, C140.

For information on UC, school, and general education requirements, see the College and Schools chapter.

**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 1A, 1B, 1C, 4AL.

**The Major**

**Required:** Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and two elective courses (8 units) from Chemical Engineering 110, C111, C112, 113, CM114, C115, C116, C118, C119, C121, C125, C128, C135, C140.

For information on UC, school, and general education requirements, see the College and Schools chapter.

**Graduate Study**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Chemical and Biomolecular Engineering offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Chemical Engineering.
Chemical Engineering

Lower-Division Courses

2. Technology and Environment. (4) Lecture, four hours; outside study, eight hours. Natural and anthropogenic changes at global and regional scales. Case studies of natural cycles include global warming (CO2 cycles), stratospheric ozone depletion (chlorine and ozone cycles), and global nitrogen cycles. Flow and materials in industrial systems compared and contrasted with natural flows; presentation of lifecycle methods for evaluating environmental impact of processes and products. P/NP or letter grading.

10. Introduction to Chemical and Biomolecular Engineering. (1) Lecture, one hour; outside study, two hours. General introduction to field of chemical and biomolecular engineering. Description of how chemical and biomolecular engineering analysis and design skills are applied for creative solution of current technological problems in production of microelectronic devices, design of chemical plants for minimum environmental impact, and application of nanotechnology to chemical sensing, and genetic-level design of recombinant microbes for chemical synthesis. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

45. Biomolecular Engineering Fundamentals. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended requisites: Chemistry 20A, 20L, 30A, 30L. Intended for those students who have not taken Life Sciences 2, 3, and Chemistry 153A. Fundamentals of modern biomolecular engineering. Topics include structure and function of biomolecules, central dogma of molecular biology, cellular information and energy processing, and experimental methods, with strong emphasis on applications in medicine, industry, and bioenergy. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in one to two units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Fundamentals of Chemical and Biomolecular Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 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 transport, Fick law of diffusion, diffusion in chemically reacting flows, interphase mass transfer, multicomponent systems. Letter grading.

102A. Thermodynamics I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to thermodynamics and biological processes. Work, energy, heat, and first law of thermodynamics. Second law, extremum principles, entropy, and phase transitions; property evaluation. Thermodynamics of flow systems. Applications of first and second laws in biological processes and living organisms. Letter grading.


103. Separation Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 100, 101C. Application of principles of heat, mass, and momentum transport to design and operation of separation processes such as distillation, gas absorption, filtration, and reverse osmosis. Letter grading.

104A. Chemical and Biomolecular Engineering Laboratory I. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: course 102B. Recommended corequisite: course 101B. Laboratory introduction to basic chemical and biomolecular 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. Computer programs used throughout to illustrate application of these methods. Technical writing of sections of technical reports and their contents; writing clearly, concisely, and consistently; importance of word choices and punctuation in multicultural engineering and of following required formatting. Letter grading.

104B. Chemical and Biomolecular Engineering Laboratory II. (4) Lecture, four hours; laboratory, six 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, scaleup and process design, and error analysis. Letter grading.

104C. Semiconductor Processing. (3) Lecture, four hours; outside study, five hours. Enforced requisite: course 101C. Basic engineering principles of semiconductor unit operations, including fabrication and characterization of semiconductor devices, investigation of processing steps to affects performance, including wafer cleaning, oxidation, diffusion, lithography, chemical vapor deposition, plasma etching, and stabilization of results in processes and error analysis. Presentation of student results in both written and oral form. Letter grading.

104CL. Semiconductor Processing Laboratory. (3) Laboratory, four hours; outside study, five hours. Enforced requisite: course 101C. Enforced corequisite: course 104CL. Series of experiments that emphasize basic engineering principles of semiconductor unit operations, including fabrication and characterization of semiconductor devices. Investigation of processing steps used to make functional and passive components of CMOS devices, including wafer cleaning, oxidation, diffusion, lithography, chemical vapor deposition, plasma etching, and metallization. Hands-on practical experience with transistors, diodes, and capacitors. Letter grading.

104D. Molecular Biotechnology Laboratory: From Gene to Product. (6) Lecture, two hours; laboratory, eight hours; outside study, eight hours. Enforced requisites: courses 101C, 104D. Introduction to molecular and engineering techniques in modern biotechnology. Cloning of protein-coding gene into plasmid, transfection, transformation, construction of &E; coli, production of &E; coli product in bioreactor, downstream processing of bioreactor broth to purify recombinant protein, and characterization of purified protein. Letter grading.

106. Chemical Reaction Engineering. (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.

107. Process Dynamics and Control. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101C, 103 (or C125), 106 (or C115). Principles of dynamics models and start-up behavior of chemical processes. Process control elements. Design and applications of chemical process computer control. Letter grading.

108. Process Economics and Analysis. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 103 (or C125), 104A, 106 (or C115). Integration of chemical engineering fundamentals such as mass and heat transport phenomena, thermodynamics, separation operations, and reaction engineering and simple economic principles for purpose of designing chemical processes and evaluating alternatives. Letter grading.

110. 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 automatic aid to performing steady state material and energy balance calculations. Letter grading.

110. Numerical and Mathematical Methods in Chemical and Biological Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20. Enforced corequisite: course 101A. Numerical methods for computation of solution of systems or linear and nonlinear algebraic equations, ordinary differential equations, and partial equations. Chemical and biomolecular engineering examples used throughout to illustrate application of these methods. Use of MATLAB as platform (programming environment) to write programs based on numerical methods to solve various problems arising in chemical engineering. Letter grading.

110. Intermediate Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 102B. Principles and engineering applications of chemical and biomolecular thermodynamics. Determination of partition function in terms of simple molecular models and spectroscopic data; nonideal gases; phase transitions and aggregation; nonequilibrium; nonequilibrium; and coupled transport processes. Letter grading.

C111. Cryogenics and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 102B, 110A (or Materials Testing I, 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-tem-
perature behavior of matter, optimization of cryosystems 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. Requisites: course 101A, Chemistry 30A. Formation of polymers, criteria for selecting reaction scheme, polymerization techniques, polymer characterization. Mechanical properties. Rheology of macromolecules, polymer processing. Diffusion in polymer systems. Polymers in biomedical applications and in microelectronics. Concurrently scheduled with course C212. Letter grading.

113. Air Pollution Engineering. (4) Lecture, four hours; protection, outside study, six hours. Enforced requisites: courses 101C, 102B. Integrated approach to air pollution, including concentrations of atmospheric pollutants, air pollution standards, air pollution sources and control technology, and relationship of air quality to emission sources. Links air pollution to multimedia environmental assessment. Letter grading.

CM114. Electrochemical Processes. (Formerly numbered C114) (Same as Materials Science CM163.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 102B, Mechanical and Aerospace Engineering 105A (or Materials Science 114) and one of the following courses: Electromechanics of solid-state devices. Use of systems modeling for metabolic networks to understanding of biochemistry, protein structure and function, and control of linear and nonlinear systems. (3) Requisite: course 101C. Letter grading.

C115. Bioseparations and Bioprocess Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced corequisite: course 101C. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying viable cells, enzymes, food additives, or pharmaceuticals that are products of biological reactors. Concurrently scheduled with course CM225. Letter grading.

C127. Systems Engineering. (4) (Same as Chemistry CM127.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: Chemistry 153A. Engineering microorganisms for synthetic biology. Production of ad- vanced biofuels involving designing and constructing novel metabolic networks in cells. Such efforts require profound understanding of biochemistry, protein structure and function, and control of linear and nonlinear systems. Letter grading. Use of systems modeling for metabolic networks to design microorganisms for energy applications. Concurrently scheduled with course CM227. Letter grading.


C135. Advanced Process Control. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 107. Introduction to advanced process control. Topics include (1) Lyapunov stability for autonomous nonlinear systems in- cluding converse theorems, (2) input to state stability, interconnected systems, and small gain theorems, and (3) design methods for robust controllers for various classes of nonlinear systems, (4) model predictive control of linear and nonlinear systems, (5) advanced methods for tuning of classical controllers, and (6) in- troduction to control of distributed parameter sys- tems. Concurrently scheduled with course C235. Letter grading.

C140. Fundamentals of Aerosol Technology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101C. Technology of particle/gas systems with applications to gas cleaning, com- mercial production of fine particles, and catalysis. Particle transportation, design of industrial equipment, experimental methods, dynamics and control of par- ticle formation processes. Concurrently scheduled with course C240. Letter grading.

CM145. Molecular Biotechnology for Engineers. (4) Same as Bioengineering CM145.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 45. Selected topics in mo- lecular biology that form foundation of biotechnology and biomedical industry today. Topics include recom- binant DNA technology, molecular research tools, ma- nipulation of gene expression, directed mutagenesis and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and antigen, diagnostic and bio- ntics, genomics and bioinformatics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM245. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Bioengineering M153, Electrical and Computer Engineering M153, and Me- chanical and Aerospace Engineering M153.) Lecture, four hours; three laboratories, four hours; outside study, five hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 4AL, 4BL. Introduction to general manufacturing methods, mechanisms, constraints, and microfabrication and nanofabrication. Focus on concepts, physics, and instruments of various micro- fabrication and nanofabrication techniques that have been broadly applied in industry and academia, in- cluding various photolithography technologies, phys- ical and chemical deposition methods, and physical and chemical etching methods. Hands-on experience with fabricating microstructural devices and systems in modern cleanroom environment. Letter grading.

188. Special Courses in Chemical Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in chemical engineering for undergraduate students. May be repeated once for credit. May be repeated for credit with topic or instructor change. Letter grading.

199. Directed Research in Chemical Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/sen- iors. Supervised individual research or investigation of selected topic under guidance of faculty mentor. Culumination paper or project required. May be repeated for credit with school approval. Individual con- tract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Advanced Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requi- site: course 102B. Phenomenological and statistical thermodynamics of chemical processes and systems with engineering applications. Presentation of role of atomic and molecular spectra and intermolecular forces in interpretation of thermodynamic properties of gases, liquids, solids, and plasmas. Letter grading.

201. Methods of Molecular Simulation. (4) Lecture, four hours; outside study, eight hours. Requisite: course 200 or Chemistry C223A or Physics 215A. Modern simulation techniques for classical molecular systems. Monte Carlo and molecular dynamics in var- ious ensembles. Applications to liquids, solids, and polymers. Letter grading.


C211. Cryogenics and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; out- side study, seven hours. Fundamentals of cryogenics and superconductivity, and critical phenomena in low-temperature processes. Basic approaches to analysis of cryofluids and cryoengineering leading to industrial low-temperature processes. Letter grading.

111. Letter grading.
C212. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 101A, Chemistry 30A. Formation of polymers, criteria for selecting reaction scheme, polymerization techniques, polymer 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.

CM214. Electrochemical Processes. (4) (Formerly numbered C214.) (Same as Materials Science CM263.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 101C. Advanced treatment of mass transfer, with applications to micro and nanoscale phenomena; molecular and biological sciences. Relationship between structure/property, of dense and porous membranes and their separation characteristics. Use of nanotechnology for design of selective sorbent layers and membranes. Molecular models of membrane transport (flux and selectivity). Examples provided from various fields/applications, including biotechnology, microelectronics, chemical processes, sensors, and biotechnology. Concurrently scheduled with course C212. Letter grading.


223. Design for Environment. (4) Lecture, four hours; outside study, seven hours. Limited to graduate students. The use of technology in the design of environmental systems with respect to human and ecological needs. Examined are the environmental impacts, prospects, and limitations of the use of technology to design processes for isolating and purifying materials like whole cells, enzymes, food additives, or biomaterials. Use of systems modeling for metabolic networks to protein structure and function, and bioinformatics. Concurrently scheduled with course CM227. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 101C. Engineering microorganisms for commercial production of fine particles, and catalysis. Concurrently scheduled with course CM127. S/U or letter grading.

228. Hydrogen. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101C. 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 combustion and hydrogen fuel cells. Concurrently scheduled with course C128. Letter grading.


C231. Molecular Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 106 or 110. Analysis and design of molecular-beam systems. Molecular-beam sampling of reactive mixtures in combustion chambers or gas jets. Molecular-beam studies of gas-surface interactions, including energy and momentum transfer, and reaction mechanisms. Applications to air pollution control and to catalysis. Letter grading.


233. Frontiers in Biotechnology. (2) Lecture, one hour. Requisite: Life Sciences 3. Integration of science and engineering in biotechnology. Academic research leading to licensing and founding of companies that turn research breakthroughs into marketable products. Invited lecturers from academia and industry cover emerging areas of biotechnology from combination of science, engineering, and business points of view. S/U or letter grading.

234. Plasma Chemistry and Engineering. (4) Lecture, four hours; outside study, eight hours. Designed for graduate chemistry major students. Application of principles of plasma chemistry, physics, and engineering principles to design and operation of plasma and ion-beam reactors used in etching, deposition, oxidation, and other surface treatments. 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. Requisite: course 107. Introduction to advanced process control. Topics include (1) Lyapunov stability for autonomous nonlinear systems including converse theorems, (2) input to state stability, interconnected systems, and small gain theorems, (3) design of nonlinear and robust controllers for various classes of nonlinear systems, (4) model predictive control of linear and nonlinear systems, (5) advanced methods for tuning of classical controllers, and (6) introduction to control of distributed parameter systems. Concurrently scheduled with course C135. Lecture grading.

236. Chemical Vapor Deposition. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 210, C216. Chemical vapor deposition is widely used to produce thin films for electronic and optical devices. Topics include reactor design, transport phenomena, gas and surface chemical kinetics, structure and composition of deposited films, and relationship between process conditions and film properties. Letter grading.

C240. Fundamentals of Aerosol Technology. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 101C. Technology of particle/ gas systems with applications to gas cleaning, commercial production of fine particles, and catalysis.
Particle transport and deposition, optical properties, experimental methods, dynamics and control of par- ticle formation processes. Concurrently scheduled with course C140. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4) (Same as Bioengineering CM245). Lecture, four hours; discussion, one hour; outside study, seven hours. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include DNA sequencing, 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.


32A, 33B. Systems approach to intracellular network Life Sciences 1, 2, 3, 4, 23L, Mathematics 31A, 31B, side study, eight hours. Requisites: course CM245, M280A. Linear Dynamic Systems. (4)

250. Computer-Aided Chemical Process Design. (4) Lecture, four hours; outside study, eight hours. Requisite: Optimization. Applications of optimization methods in chemical process design; computer aids in process engineering; process modeling: systematic flowsheet invention; process synthesis; optimal design and operation of large-scale chemical processing systems. Letter grading.


270. Principles of Reaction and Transport Phe- nomena. (4) Lecture, four hours; laboratory; eight hours. Fundamentals in transport phenomena, chem- ical reaction kinetics, and thermodynamics at molec- ular level. Topics include Boltzmann equation, micro- scope chemical kinetics, transition state theory, and statistical analysis. Examination of engineering appli- cations related to state-of-art research areas in chem- ical engineering. Letter grading.

270R. Advanced Research inSemiconductor Man- ufacturing. (2 to 16) Lecture, four hours; outside study, nine hours. Limited to graduate chemical engineering students in MS semiconductor manufacturing option. Supervised research in processing semiconductor materials and devices. Letter grading.

M280A. Linear Dynamic Systems. (4) (Same as Electrical and Computer Engineering M240A and Mechanical and Aerospace Engineering M270A.) Lecture, four hours; outside study, eight hours. Requisite: Electrical and Computer Engineering 141 or Mechan- ical and Aerospace Engineering 171A. State-space description of linear time-invariant (LTI) and time- varying (LTV) systems in continuous and discrete time. Linear systems theory such as eigenvalues and eigenvectors, singular values, Cayley/Hamilton theorem, Jordan form; solution of state equations; stability, controllability, observability, realizability, and minimality. Stabilization design via state feedback and observer; 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 Aero- space Engineering 270B. Applications of variational methods, optimal control theory (e.g., Pontryagin/Jacobi/Bellman equation (dynamic programming) to optimal control of dynamic systems modeled by non- linear ordinary differential equations. Letter grading.

M282A. Nonlinear Dynamic Systems. (4) (Same as Electrical and Computer Engineering and Me- chanical and Aerospace Engineering M272A.) Lect- ture, four hours; outside study, eight hours. Requisite: course M280A or Electrical and Computer Engi- neering M250A or Mechanical and Aerospace Engi- neering M270A. State-space techniques for studying solutions of time-invariant and time-varying nonlinear dynamic systems with emphasis on stability. La- punov theory (including converse theorems), invari- ance, center manifold theorem, input-to-state stability and small-gain theorem. 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 dy- namical analysis and controller synthesis methods for nonlinear infinite dimensional systems. Topics include (1) linear time-invariant systems (e.g., linear or Banach and Hilbert spaces, semigroup theory, con- vergence theory in function spaces), (2) nonlinear model reduction (linear and nonlinear Galerkin method, proper orthogonal decomposition), (3) non- linear and robust control of nonlinear hyperbolic and parabolic partial differential equations (PDEs), (4) ap- plications to transport-reaction processes. 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 processing dynamics and control, fuel cells and batteries, membrane transport, advanced chem- ical engineering analysis, polymers, optimization in chemical process design. May be repeated for credit with topic change. Letter grading.

M297. Seminar: Systems, Dynamics, and Control Topics. (2) (Same as Electrical and Computer Engi- neering M248S and Mechanical and Aerospace Engi- neering 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 each) Seminar, to be arranged. Requisites for each offering announced in advance by department. Lectures, dis- cussions, 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 chem- ical engineers on development or application of re- cent technological advances in discipline. May be re- peated 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 guid- ance and supervision of regular faculty member res- ponsible 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- day 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 princi- ples, concepts, and methods; teaching assistant preparation, organization, and presentation of mate- rial, including use of grading, advising, and rapport with students. S/U grading.

495B. Teaching with Technology for Teaching As- sistants. (2) Seminar, two hours; outside study, four hours. Limited to graduate chemical engineering stu- dents. Designed for teaching assistants interested in learning more about effective use of technology and ways to incorporate that technology into their class- rooms for benefit of student learning. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate chemical engineering students. Petition forms to request enroll- ment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced tech- nical problems. S/U grading.

597A. Preparation for MS Comprehensive Exam- ination. (2 to 16) Seminar, to be arranged. Limited to graduate chemical engineering students in MS semi- conductor manufacturing option. Reading and prepa- ration for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examina- tions. (2 to 16) Seminar, to be arranged. Limited to graduate chemical engineering students. Supervised indepen- dent research for MS candidates, including thesis prospectus. S/U grading.

597C. Preparation for PhD Oral Qualifying Exam- inations. (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.


599. Research for and Preparation of PhD Disserta- tion. (2 to 16) Tutorial, to be arranged. Limited to graduate chemical engineering students. Usually taken after students have been advanced to candi- dacy. S/U grading.

CHEMISTRY AND BIOCHEMISTRY

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Letters
Scope and Objectives
Chemistry is concerned with the composition, structure, and properties of substances, the transformations of these substances into others by reactions, and the kinds of energy changes that accompany these reactions. The Department of Chemistry and Biochemistry is organized in four interrelated and overlapping subdisciplines that deal primarily with the chemistry of inorganic substances (inorganic chemistry), the chemistry of carbon compounds (organic chemistry), the chemistry of living systems (biochemistry), and the physical behavior of substances in relation to their structures and chemical properties (physical chemistry). The Chemistry/Materials Science major is designed for students who are interested in the applications of chemistry for the design, synthesis, and study of new materials.

Undergraduate Study
The department offers four majors: Chemistry (with concentrations in chemistry and physical chemistry), Biochemistry, General Chemistry, and Chemistry/Materials Science. The Chemistry and Biochemistry majors are designed to prepare students for graduate studies in each field, for entry into professional schools in the health sciences, and for careers in industries and businesses that depend on chemically based technology. The General Chemistry major is designed for students who wish to acquire considerable chemical background in preparation for careers outside chemistry. The Chemistry/Materials Science major provides appropriate preparation for graduate studies in fields that emphasize research involving chemistry, engineering, and applied science.

Each course used to fulfill any of the requirements for any of the departmental majors must be taken for a letter grade. Seminar courses, individual study courses, and research courses (e.g., 194, 199) may not be applied toward the requirements for the majors.

Requirements for the majors are outlined below. For additional information, contact the Undergraduate Advising 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 chemistry principles and models
• Understanding of the role of chemistry in addressing contemporary societal and global issues
• Performance of basic laboratory techniques, description of working principles, and knowledge of how to operate modern chemical instrumentation
• Use of chemical information to search chemical safety databases
• Conduct experimental work and handle all chemicals in a safe manner following OSHA-approved regulations and procedures
• Work effectively in groups and teams of diverse peers to solve scientific problems
• Search and access current and prior research
• Communication of chemical knowledge and experimental results through written reports and oral presentations

Chemistry Concentration
Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Mathematics 31A, 31B, 32A, 32B, 33B; Physics 1A, 1B, and 1C (or 1AH, 1BH, 1CH), 4BL.

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 upper-division laboratory course from 136, 144, 154, C174, 184, 185.

Physical Chemistry Concentration
The physical chemistry concentration is designed primarily for students who are interested in attending graduate school in physical chemistry/physics or related areas.

Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4BL.

The Major
Required: Chemistry and Biochemistry 110A, 110B, 113A, C113B, 114 (or 114H), 135A, 171, 172; one additional upper-division chemistry, electrical engineering, or physics laboratory course; and three elective upper-division or graduate courses approved by the physical chemistry adviser. Refer to the Undergraduate Advising Office website for a list of approved electives.

By the junior year, students are strongly encouraged to join a research group within the physical chemistry division to obtain firsthand experience with state-of-the-art physical chemistry research.

Biochemistry BS
The Biochemistry major is for students preparing for careers in biochemistry or other fields requiring extensive preparation in both chemistry and biology.

Learning Outcomes
The Biochemistry major has the following learning outcomes:
• Understanding of chemical structures, bonding, and conformational properties of biological molecules
• Understanding of higher-level organization of cellular components, rules of subcellular organelles, and compartmentalization
• Understanding of mechanisms and energetics of biochemical reactions and the basis for enzymatic catalysis, including the roles of organic cofactors and metals in such processes
• Understanding of ways that cellular events are energetically coupled in key processes
• Understanding of regulatory and response mechanisms that operate in biological systems to achieve homeostasis and conduct signaling within and between cells
• Understanding of the basis for molecular evolution and ways that genetic information is encoded and transmitted in biology
• Understanding of the roles of DNA and protein sequence information in inferring biological function and common ancestry
• Familiarity with laboratory methods for purifying, identifying, and characterizing biomolecules, including protein and nucleic acids
• Familiarity with assays for activity and binding
• Familiarity with basic laboratory methods for DNA manipulation
• Understanding of the roles of hypotheses and models in investigating scientific ideas
• Understanding of the critical importance of controls in interpreting experimental data

Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Mathematics 31A, 31B, 32A (33A strongly recommended); Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH) and 4BL, or 5A, 5B, and 5C.

Students must also complete one of two life sciences sequences—either Life Sciences 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence.

The Major
Required: Chemistry and Biochemistry 110A, 153A, 153B, 153C, 153L, 154, 156; one additional upper-division or graduate course in chemistry and biochemistry; and three elective upper-division or graduate courses (12 units) approved by the undergraduate adviser (Microbiology, Immunology, and Molecular Genetics 101 highly recommended). Refer to the Undergraduate Advising Office website for a list of approved electives.

General Chemistry BS
The General Chemistry major is for students who wish to acquire considerable chemical background in preparation for careers outside chemistry. The requirements are accordingly quite flexible. The major may be appropriate for some students who plan to enter professional schools, such as those of pharmacy, dentistry, or public health. This major cannot be taken as part of a double major. Students must declare the major before reaching 135 units.

Learning Outcomes
The General Chemistry major has the following learning outcomes:
• Demonstrated mastery of fundamental chemical knowledge in analytical, inorganic, organic, physical chemistry, and biochemistry through in-depth problem solving, critical thinking, and analytical reasoning
• Effective communication of chemical knowledge through written materials, oral presentations, and teaching in a variety of settings
• Use of information resources for exploration and investigation of chemistry principles and models
• Understanding of the role of chemistry in addressing contemporary societal and global issues
• Ability to perform and teach basic laboratory procedures and techniques involving the synthesis of molecules
• Ability to perform and teach the measurement of chemical properties, structures, and phenomena
• Knowledge of how to handle chemicals in a safe manner following OSHA-approved regulations and procedures
• Knowledge of how to use information resources to search and access safety databases

Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Mathematics 31A, 31B, 32A, 32B, 33B; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4BL.

Students must complete the preparation courses with at least a 2.0 grade-point average.

The Major
Required: Chemistry and Biochemistry 110A, 153A, 153L, 171; three additional upper-division courses in the department (at least one must be a laboratory course); six additional upper-division or graduate courses (12 units) approved by the undergraduate adviser.
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 nanoscale 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 110A, 113A, 171, 172 or C180 or C181, 185, 4 units from 110B, C113B, 172, C174, C175, C176, C180, C181; Materials Science and Engineering 104, 110, 110L, 120, 121 or 150 or 160, 131, 8 units from 111, 121, 122, 132, 150, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L.

The following courses may be applied only once toward the major: Chemistry and Biochemistry 172, C180, C181, Materials Science and Engineering 121, 150, 160.

Organic Materials Concentration
Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL, Mathematics 31A, 31B, 32A, 32B, 33B, Physics 1A, 1B, 1C, 4BL.

The Major
Required: Chemistry and Biochemistry 110A, 113A, 136, 171, 185, 4 units from 110B, C113B, C143A, 144, 172, C174, C175, C176, C180, C181; Materials Science and Engineering 104, 110, 110L, 120, 150, 4 units from 111, 121, 122, 131, 132, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L.

Honors Program
Admission
The honors program provides exceptional Chemistry and Biochemistry Department majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major, with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission. Students must have the sponsorship of an approved faculty adviser.

For additional information and application forms, students should contact the Undergraduate Advising Office, 4006 Young Hall, early in their educational planning. Completed applications must be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements
The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 199, culminating in a thesis.

To qualify for graduation with departmental honors, students must satisfactorily complete all requirements for the honors program and the major and obtain a cumulative grade-point average of 3.5 or better in coursework required for the major. On recommendation of the faculty sponsor, and with the approval of the thesis by the departmental honors committee, students are awarded no honors, honors, or highest honors.

Students who have a grade-point average of 3.6 or better, both overall and in the major, and demonstrate exceptional accomplishment on the research thesis are awarded highest honors at the discretion of the departmental honors committee.

Computing Specialization
Majors in Chemistry and Biochemistry may select a specialization in Computing by: (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, and one course from 10C, 15, 20A, 30, or 60, and (3) completing two computational chemistry courses from Chemistry and Biochemistry C126A, C145, CM160A. Courses need to be completed with a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Undergraduate Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Chemistry and Biochemistry offers Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Chemistry and Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Biochemistry, Molecular, and Structural Biology.

Chemistry and Biochemistry
Lower-Division Courses
2. Introductory Chemistry. (4) Lecture, two hours; discussion, two hours. Not open to students with credit for course 14A or 20A. Concept of submicroscopic world of chemistry, ranging from protons to proteins in subject matter. P/NP or letter grading.

3. Material World. (4) Lecture, three hours; discussion, one hour. Focus on most important advances made by humans in developing new molecules and materials, and how these discoveries affect our everyday life. These include development of paints, plastics, metals, fuels, drugs, energetic materials, radioactive substances, poisons, vaccines, and many more. Connections between interplay of science, history, arts, and socioeconomic factors driving technological development. Discussion emphasizes projected future of these emerging technologies. P/NP or letter grading.

7. Nanoscience and Nanotechnology Laboratory. (2) Seminar, discussion, and laboratory, 32 hours. Limited to high school students. Key concepts of nanoscience and nanotechnology, including various ap-
proaches to nanofabrication (bottom-up and top-down). Fabrication of nanostructures and devices, collation of scientific data using those devices, analysis of data, and presentations of student results. Offered in summer only. P/NP grading.

8. Applications of Nanoscience (2 to 4) Seminar, discussion, laboratory, and field trip, 30 to 60 hours. Limited to high school students. Introduction of advanced concepts of nanoscience and nanotechnology, with emphasis on nanoscale effects and recent developments in other research fields and industries. Laboratories introduce students to research methods, experiment development, scientific writing, and presentation of scientific results. Student teams devise and execute their own exploratory nanoscience experiments, and present them to technical audience. Offered only as part of Summer Institute. P/NP grading.

14A. Atomic and Molecular Structure, Equilibria, Acids, and Bases. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one half years of high school mathematics. Enforced corequisite: Life Sciences 30A, 30B, or Mathematics 3A or 31A or score of 35 or better on Mathematics Diagnostic Test. Not open to students with credit for course 20A. Introduction to physical and general chemistry principles; atomic theory; quantum mechanics; atomic properties; trends in periodic table; chemical bonding (Lewis structures, VSEPR theory, hybridization, and molecular orbital theory); coordination compounds; properties of inorganic acids, bases, buffers, P/NP or letter grading.

14B. Thermodynamics, Electrochemistry, Kinetics, and Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 14A with grade of C– or better. Enforced prerequisite or corequisite: Life Sciences 30B or Mathematics 3B or 31B with grade of C– or better. Not open to students with credit for course 20A, 20B, or 30A. Chemical equilibria in general chemistry; properties of acids; acid-base relationships; estimation; acid-base titrations; phase changes; thermodynamics; first, second, and third laws of thermodynamics; free energy changes; electrochemistry and its role as 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 grade.

14BL. General and Organic Chemistry Laboratory I. (3) Lecture, one hour; laboratory, three hours. Enforced prerequisite: course 14A with grade of C– or better. Enforced corequisite: course 14B. 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, UV); introduction to effects of structure on physical and chemical properties; survey of biomolecular 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, UV); introduction to effects of structure on physical and chemical properties; survey of biomolecular structure. P/NP or letter grading.

14CL. General and Organic Chemistry Laboratory II. (4) Lecture, one hour; laboratory, six hours. Enforced prerequisites: courses 14B and 14CL, with grades of C– or better. Enforced corequisite: course 14C. Synthesis of functional groups; purification by extraction, chromatography, recrystallization, and sublimation; characterization by mass spectroscopy, UV, NMR, and IR spectroscopy, optical activity, electrochemistry, pH titration, and paper chromatography. P/NP or letter grading.

14D. Organic Reactions and Pharmaceuticals. (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 14C with grade of C– or better. Organic reactions, nucleophilic and electrophilic substitution and additions; electroorganic synthetic op-erations, carboxyl reactions, catalysis, molecular basis of drug action, and organic chemistry of pharmaceuticals, P/NP or letter grading.

17. Chemical Principles. (4) Lecture, three hours; discussion, one hour. Introduction to chemical principles; reaction mechanisms; thermodynamics, solutions, acids, bases, and salts, molecular structure, and nomenclature. Collaborative learning and problem solving; introduction to chemical laboratory practice. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20A. Chemical Structure. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent 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. P/NP or letter grading.

20A. Chemical Structure (Honors). (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background, high school physics, and three and one half years of high school mathematics. Enforced corequisite: Mathematics 31A. Honors course parallel to course 20A. P/NP or letter grading.

20B. Chemical Energy and Change. (4) Lecture, three hours; discussion, one hour. Enforced prerequisites: course 20A or 20AH, and Mathematics 31A, with grades of C– or better. Enforced corequisite: Mathematics 31B. Second term of general chemistry, intermolecular forces and organization, phase behavior, chemical thermodynamics, solutions, equilibria, reaction rates and laws. P/NP or letter grading.

20BH. Chemical Energygetics and Change (Honors). (4) Lecture, three hours; discussion, one hour. Enforced prerequisites: course 20A, and Mathematics 31A with grades of B+ or better or 20AH with grade of B or better. Enforced corequisite: Mathematics 31B. Honors course parallel to course 20B. Letter grading.

20L. General Chemistry Laboratory. (3) Lecture, one hour; laboratory, three hours. Enforced prerequisite: course 20A with grade of C– or better. Enforced corequisite: course 20B. Use of balance, volumetric techniques, volumetric analysis; Beer’s law, applications for environmental analysis and material science. P/NP or letter grading.


30AH. Organic Chemistry I: Structure and Reactivity (Honors). (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 20B or 20BH, with grade of B+ or better. Honors course parallel to course 30A. P/NP or letter grading.

30AL. General Chemistry Laboratory I. (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 identification of functional groups; stereochemistry and conformational analysis; separation and identification of drugs. P/NP or letter grading.


30BL. Organic Chemistry Laboratory I. (3) Lecture, one hour; laboratory, four hours. Enforced prerequisites: courses 30A or 30AH, 30AL and 30B, with grades of C– or better. Basic experimental techniques in organic synthesis (performing reactions, monitoring reactions, and conducting purifications) and spectroscopy (IR, NMR, and organic mass spectrometry). Determination of known organic molecules on microscale level with focus on societal applications. P/NP or letter grading.


30CL. Organic Chemistry Laboratory II. (4) Lecture, two hours; laboratory, six hours. Enforced prerequisites: courses 30B and 30BL, with grades of C– or better. Enforced corequisite: course 30C. Modern techniques in synthetic organic and bioorganic chemistry. Semi-preparative scale, multistep synthesis of organic and organometallic molecules, including asymmetric catalysts. One- and two-dimensional nuclear NMR to written reports and proposals. 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 these about, beginning with discovery of helium 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 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.

89C. 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 grade.

96. Special Courses in Chemistry. (1 to 4) Tutorial, to be arranged. May be repeated for maximum of 8 units. P/NP or letter grading.

98XA. 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.

98XB. 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.


C110B. Physical Chemistry: Introduction to Chemical Thermodynamics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A, 113A, Mathematics 32B. Kinetic theory of gases, principles of statistical mechanics, statistical thermodynamics, equilibrium thermodynamics, and free energy, relaxation and transport phenomena, macroscopic chemical kinetics, molecular-level reaction dynamics. P/NP or letter grading.

C113B. Physical Chemistry: Introduction to Molecular Spectroscopy. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 113A. Introduction of radiation with matter, microwave spectroscopy, infrared and Raman spectroscopy, vibrational properties of molecules, electronic spectroscopy, magnetic resonance spectroscopy. Concurrently scheduled with course C213B. P/NP or letter grading.

C114. Physical Chemistry Laboratory. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30AL, 110A, and 113A, with grades of C– or better. Enforced corequisite: course 110B or C113B. Lectures include techniques of physical measurement, error analysis and statistics, special topics. Laboratory includes spectroscopy, thermodynamic measurements, and chemical dynamics. P/NP or letter grading.

C114H. Physical Chemistry Laboratory (Honors). (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30AL, 110A, and 113A, with grades of B or better. Enforced corequisite: course 110B or C113B. Lectures include techniques of physical measurement, error analysis and statistics, special topics. Laboratory includes spectroscopy, thermodynamic measurements, and chemical dynamics. P/NP or letter grading.

C115A-C115B. Quantum Chemistry. (4–4) Lecture, four hours; discussion, one hour. Requisites: course 113A, Mathematics 31A, 31B, 32A, 32B, 33A, with grades of C– or better. Recommended: knowledge of differential equations. Mathematics 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 entering C115B 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; expansion theorems; wells; oscillators; angular momentum; hydrogen atom; matrix techniques; approximation methods; time dependent problems; atoms; electronic spectroscopy; magnetic chemical bond. May be concurrently scheduled with courses C215A-C215B. 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 a common goal of metabolic engineering and synthetic biology. Production of advanced biofuels involves designing and constructing novel metabolic networks in cells. These efforts require profound understanding of biochemistry, protein structure, and bi-
ological 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 CM227. 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: 153C, 153D, or 153BH. Introduction to nanoscale biological systems and strategies for top-down and bottom-up fabrication of ordered biologically derived molecules, characterization and detection techniques, and biomimetic materials and applications at nanoscale. Concurrently scheduled with course C240. P/NP or letter grading.

C143A. Structure and Mechanism in Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30C and 30CL (may be taken concurrently), 110B, and 113A, with grades of C– or better. Mechanisms of organic reactions. Acidity and basicity; bases, acid catalysis; linear free energy relationships; isotope effects. Molecular orbital theory; photochemistry; pericyclic reactions. May be concurrently scheduled with course C243A. P/NP or letter grading.

C143B. Introduction to Theoretical Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course C143A with grade of C– or better. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C243B. P/NP or letter grading.

144. Practical and Theoretical Introductory Organic Synthesis. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30C and 30CL, with grades of C– or better. Lectures on modern synthetic reactions and processes, with emphasis on stereospecific methods for carbon-carbon bond formation. Laboratory methods of synthetic organic chemistry, including reaction techniques, synthesis of natural products, and molecules of theoretical interest. P/NP or letter grading.

145. Theoretical and Computational Organic Chemistry. (4) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Requisites: courses 30C, 113A. Applications of quantum mechanical concepts and methods to understand and predict organic reaction mechanisms. Computational modeling methods, including laboratory 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. (2) Seminar, two hours. 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 development, education, law, and healthcare, explain how their education in chemistry and biochemistry made them successful, and what actual chemistry was used in their particular professions. Students learn and understand real-life applications of chemical concepts found in their coursework. 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, literature and critical evaluation of experimental designs, ethical and legal subjects protection, animal subject protection, and conflict of interest. May be repeated for credit. Concurrently scheduled with course C250. Letter grading.

153A. Biochemistry: Introduction to Structure, Enzymes, and Metabolism. (5) Lecture, four hours; discussion, one hour. Requisite: course 143D or 30B, with grade of C– or better. Recommended: Life Sciences 2, 3, and 23L, or 7A. Structure of proteins, carbohydrates, and lipids; enzyme catalysis and principles of metabolism, including glycolysis, citric acid cycle, and oxidative phosphorylation. P/NP or letter grading.

153AH. Biochemistry: Introduction to Structure, Enzymes, and Metabolism (Honors). (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 153A or 153AH. Recommended: Life Sciences 2, 3, 23L, or 7A and 7BL. Integration of metabolism; DNA replication; DNA repair; transcription machinery; regulation of transcription; RNA structure and processing; protein synthesis and processing, 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. Life Sciences 2, 3, 23L, or 7A. Systems approach; RNA regulation; DNA replication; 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. Enforced requisites: course 153A or 153AH. Life Sciences 2, 3, 23L. Honors course parallel to course 153B. P/NP or letter grading.

153C. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation. (4) Lecture, four hours; discussion, one hour; tutorial, one hour. Requisite: course 153A or 153BH. Carbohydrates, fats, amino acids, and lipids; photosynthetic processes and inorganic nutrients; regulation of these processes. P/NP or letter grading.

153CH. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation (Honors). (4) Lecture, three hours; discussion, two hours. Requisite: course 153A or 153BH. Honors course parallel to course 153C. P/NP grading.

153D. Introduction to Protein Structural Biology. (4) Lecture, three hours; discussion, one hour. Requisites: course 153A, Life Sciences 3 or 7A. Proteins are diverse 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. How experimental and computational methods are used to determine three-dimensional structures of proteins. Hands-on training in computer graphics programs and online tools to visualize and analyze protein structures. Letter grading.

153L. Biochemical Methods I. (4) Lecture, two hours; laboratory, four hours. Requisites: courses 14BL or 20L, and 30AL, or 153A or 153AH (may be taken concurrently), with grades of C– or better. Techniques include protein determination by Bradford assay, polyacrylamide gel electrophoresis, enzyme. Techniques include protein determination by Bradford assay, polyacrylamide gel electrophoresis, enzyme purification and activity (Km, Vmax, inhibitor studies). Participation required. Concurrently scheduled with course CM259. P/NP or letter grading.

156. Physical Biochemistry. (4) Lecture, four hours; discussion, one hour. Enforced requisites: courses 30A, 153A, 153BH, 153C, and 153D. Biochemical kinetics; solution thermodynamics of biochemical systems; multiple equilibria; hydrodynamics; energy levels, spectroscopy, and bonding; topics from structural, statistical, and electrochemical methods of biochemistry. P/NP or letter grading.


CM160A. 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, 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 CM260A. P/NP or letter grading.

CM160B. Algorithms in Bioinformatics. (4) (Same as Computer Science CM122.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Course CM160A is not requisite to CM160B. Designed for engineering students as well as students from scientific disciplines and liberal arts. Development and application of computational approaches to biological questions, with focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM260B. Letter grade only.

C161A. Plant Biochemistry. (4) Lecture, three hours; discussion, two hours. Requisites: courses 153C and 153L. Introduction to distinctive features of plant biochemistry. Topics include photosynthesis, nitrogen metabolism, plant cell wall metabolism, and secondary metabolism in relation to stress. Concurrently scheduled with course C261A. P/NP or letter grading.

C163. Membrane Protein Structure and Function. (4) Lecture, four hours. Requisite: course 153D. Detailed examination of how various membrane proteins work. Topics include lipid bilayer properties and how they affect membrane protein function and bioelectrical membrane protein biogenesis; principles of transport across membranes; how channels, transporters, and receptors work at atomic level.
C164. Free Radicals in Biology and Medicine. (2 to 4) Lecture, three hours. Enforced requisites: courses 153A and either 153B or 153C, with grades of C– or better. A detailed study of free radicals in mitochondrial metabolism, neurodegenerative diseases, apoposis, and aging. Discussion of radical reactions, how they are harnessed to achieve enzyme catalysis, and how they contribute to or regulate essential biological processes. Some of these reactions “run amok” under certain types of stress and can contribute to a wide variety of diseases, including neurodegenerative diseases (e.g., Huntington’s, Parkinson’s, and Alzheimer’s diseases), mitochondrial diseases, atherosclerosis, and aging. Concurrently scheduled with course C264. P/NP or letter grading.


166. RNA Structure, Recognition, and Function. (4) Lecture, three hours; discussion, one hour. Requisite: courses 153A and 153B. Introduction to RNA structure, function, and evolution. Emphasis on understanding of experimental techniques, and special topics such as conformational analysis of unique properties of polymers, polymer chemistry, X-ray fluorescence, and other modern spectroscopy. May be concurrently scheduled with course C276A. P/NP or letter grading.

CM170. Biochemistry and Molecular Biology of Photosynthetic Apparatus. (2 to 4) (Same as Molecular, Cell, and Developmental Biology M170.) Lecture, two to three hours; discussion, zero to two hours. Requisites: courses 153A and 153B, or Life Sciences 3 and 23L, and course 153L. Recommended: courses 153C, 154, Life Sciences 4. Light harvesting, photosynthesis, electron transfer, carbon fixation, and methylation reactions. Concurrently scheduled with course C270. P/NP or letter grading.

171. Intermediate Inorganic Chemistry. (4) Lecture, four hours. Requisite: course 308 with grade of C– or better. Chemical bonding; structure and bonding in solid state; main group, transition metal, lanthanide and actinide compounds and reactions; catalysis, spectroscopy, special topics. P/NP or letter grading.

172. Advanced Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course 171 with grade of C– or better. Systematic approach to modern inorganic chemistry, structure and bonding of inorganic molecules and solids, structure/reactivity relationships, vibrational spectra of complexes, electronic structure of lanthanide and actinide elements, mechanisms of inorganic reaction and spectroscopy, voids in organometallic compounds, transition metals in catalysis and biology. P/NP or letter grading.

C173. Electrochemical Systems. (4) Lecture, three hours; discussion, one hour. Requisite: course 110A, Mathematics 33B. 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. Understanding of course contents helps appreciate research and technologies in catalysis, energy storage and conversion, and advanced environmental technologies. Concurrently scheduled with course C273. P/NP or letter grading.

C174. Inorganic and Metallorganic Laboratory Methods. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 171, 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 review. May be concurrently scheduled with course C274. P/NP or letter grading.


C176. Group Theory and Applications to Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: courses 113A and 172, with grades of C– or better. Group theoretical methods; molecular orbital theory; transition metal complexes; vibrational spectroscopy. May be concurrently scheduled with course C276A. P/NP or letter grading.

C179. Biological Inorganic Chemistry. (4) Lecture, three hours; laboratory, two hours. Requisite: course 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 metalloenzymes; metalloproteins in electron transfer, respiration, and photosynthesis; metals in medicine. Concurrently scheduled with course C279. P/NP or letter grading.

C180. Solid-State Chemistry. (4) Lecture, three hours; discussion, two hours. Requisite: course 171. 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 C270. P/NP or letter grading.

C181. Polymer Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30CL and 110A, with grades of C– or better. Survey of new materials and methods for their preparation and characterization, with emphasis on band theory and its relationship to chemical, optical, transport, and magnetic properties, leading to deeper understanding of these materials. Concurrently scheduled with course C270. P/NP or letter grading.

184. Chemical Instrumentation. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 110A, with grades of C– or better. Theory and practice of instrumental techniques of chemical and structural analysis, including atomic absorption spectroscopy, gas chromatography, mass spectrometry, nuclear magnetic resonance, polarography, X-ray fluorescence, and other modern methods. P/NP or letter grading.


M186. Stochastic Processes in Biochemical Systems. (4) (Same as Computational and Systems Biology C186.) Lecture, two hours; discussion, two hours. Requisites: Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C, or Mathematics 33B, Electrical and Computer Engineering 131A or Mathematics 170A or Statistics 103A. Covers mathematical methods and computer simulation in biochemical systems, including ion channels, cytoskeleton, cell migration and mitosis, gene expression networks, and signal transduction. Covers mathematical tools such as continuous and discrete Markov processes, first passage, time escape problems, statistical mechanics, and information theory. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. 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 to allow a student in good academic standing to work with an individual instructor 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 contract required. Honors content noted on transcript. Letter grading.

192A-192B. Undergraduate Practicum in Chemistry and Biochemistry. (4–4) Seminar, one hour; laboratory, four hours. Enforced requisites: courses 14BL and 14CL, or 20L and 30AL, or Science Education 100SL. Intended for students who are planning careers in secondary school chemistry teaching. Complements service learning California Teach science courses that involve teaching field experiences in middle school and high school classrooms. Examination of chemistry issues such as credit for college and use, waste management, laboratory organization, safety, and techniques. P/NP or letter grading.

192C-192D. Undergraduate Assistant Education Practicum in Chemistry and Biochemistry. (4–4) Seminar, one hour; laboratory, four hours. Enforced requisites: courses 14BL and 14CL, or 20L and 30AL, or Science Education 100SL. Intended for students who are planning careers in secondary school chemistry teaching. Complements service learning California Teach science courses that involve teaching field experiences in middle school and high school classrooms. Examination of chemistry issues such as credit for college and use, waste management, laboratory organization, safety, and techniques. P/NP or letter grading.

C193. Journal Club Seminars: UC LEADS and MARC. (1) (Seminar, three hours.) Designed for juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist in chemistry and biochemistry libraries and bibliographic services. Limited to students in College Honors Program. Didactic instruction for additional information regarding requirements, enrollment petitions, and written proposal deadlines. May be repeated for credit. Letter grading.

C193B. 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. Enforced student topics may be obtained from physical, organic, or inorganic chemistry or biochemistry. Discussion of 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 seniors/graduates. Entry-level research apprenticeship for upper-division students who have completed commitment to research. Enforced student topics may be obtained from physical, organic, or inorganic chemistry or biochemistry. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. P/NP grading.

196B. Research Apprenticeship in Chemistry and Biochemistry. (2 to 4) Tutorial, three hours per week per unit. Enforced requisite: course 196A (8 units). Limited to seniors/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 semester. Unenforced prerequisite: course 196A (8 units). Limited to junior and senior 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 in complete organisms (e.g., over 80% of drug candidates fail in clinical trials). High-throughput technologies such as sequencing, microarrays, mass-spect, and robotics have given biologists incredible new possibilities to analyze complete genomes, expression patterns, functions, and interactions across whole organisms, populations, and species. Use and analysis of such datasets becomes essential to understanding medical sciences, regulatory 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 1C08. 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 NSF and similar 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 ethics 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 practice. S/U grading.

203C. Research Integrity and Ethics in Genetics Research. (2) Lecture, 90 minutes. Data analysis and management, statistical methods, use of commercial reagents, microscopy data analysis, figure preparation, authorship, human subject protection, animal subject protection, and conflict of interest. May be repeated for credit. S/U grading.

203D. Advanced Topics in Responsible Conduct in Cellular and Molecular Biology Research. (2) Seminar, two hours. Enforced prerequisite: course 203A or 203C or 203B. Cellular and molecular biology PhD students continue to learn how to conduct research in field to reliably advance knowledge while maintaining ethical principles. Designed to be taken in fourth or fifth year of PhD work where students 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 for NIH training grants and individual NRSA awards. S/U grading.

204. Student Research Seminar. (2) Seminar, one hour. Limited to students supported by UCLA programs in General Biochemistry 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 biology topics. Topics include computational chemical biology, utility of synthesis in biochemical research, peptideomimetics, 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. Concurrently scheduled with course 2105. Letter grading.

CM205B. Issues on Chemistry/Biology Interface. (2) (Same as Pharmacology M205B) Seminar, one hour. Requisite: course CM205A. Selected talks and papers presented by training faculty on solving problems using interdisciplinary tools in chemistry and 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 General Biochemistry Predoctoral Training. Current research topics at interface of chemistry and biology. May be repeated for credit. S/U grading.

C207. Organometallic Chemistry. (4) Formerly numbered 207.) Lecture/discussion, three hours. 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 olefin complexes and metal carbonyls; applications in catalysis and organic synthesis. Concurrently scheduled with course CM207. 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 practical aspects of mass spectrometry. Topics include EI, CI, ICPMS, GC/MS, LC/MS, ESI, MALDI, MS/MS 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 help them engage 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 Spectroscopy. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 113A. Interaction of radiation with matter; introduction to infrared, Raman spectroscopy, vibrations in polyatomic molecules, electronic spectroscopy, magnetic resonance spectroscopy. Concurrently scheduled with course CM213B. Laboratory prerequisite required of graduate students. S/U or letter grading.

C215A-C215B. Quantum Chemistry: Methods. (4–4) Lecture, four hours; discussion, one hour. Requisites: course 113A, Mathematics 31A, 31B, 32A, 32B, 33A, with grades of C– or better. Recommended knowledge of differential equations equivalent to Mathematics 134 or 135 or Physics 105A. Course C215A or Physics 115B with grade of C– or better is requisite to C215B. Students entering course C215A are normally expected to take course C215B in following term. Designed for chemistry students with second-year level of undergraduate study in physical chemistry. Concurrently scheduled with course CM215B. Letter grading.

C219D. Molecular Spectra, Diffraction, and Structure. (4) Lecture, three hours; discussion, one hour. Requisites: course C215B, Physics 131. Selected topics from electronic spectra of atoms and molecules; vibrational, rotational, and Raman spectra; magnetic resonance spectra; X-ray neutron, and electron diffraction; coherence effects. 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. S/U grading.

219A. Seminars: Research in Physical Chemistry—Photon Resolved Spectroscopy of Materials (Physical Chemistry). (2 each) Seminar, three hours. Limited to chemistry graduate students. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading. 219E, Dynamics of Molecule-Molecule and Surface-Surface Reactions. Corequisite: Seminar (Same as Pharmacology) M205B. Seminar, three hours. Designed for chemistry graduate students. Literature discussion, discussion of recent results, safety procedures, and guest lectures. S/U grading.

219E-219Z. Seminars: Research in Physical Chemistry. (2 each) Seminar, three hours. Advanced study and discussion of current topics in physical chemistry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading. 219E, Dynamics of Molecule-Molecule and Surface-Surface Reactions. Corequisite: Seminar (Same as Pharmacology) M205B. Seminar, three hours. Designed for chemistry graduate students. Literature discussion, discussion of recent results, safety procedures, and guest lectures. S/U grading.

219F-219Z. Seminars: Research in Physical Chemistry. (2 each) Seminar, three hours. Advanced study and discussion of current topics in physical chemistry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading. 219E, Dynamics of Molecule-Molecule and Surface-Surface Reactions. Corequisite: Seminar (Same as Pharmacology) M205B. Seminar, three hours. Designed for chemistry graduate students. 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 prerequisite: 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 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 Thermodynamics. (4–4) Lecture, four hours; discussion, one hour. Requisite: course 110B or 156. Recommended: course 113A. Presentation of fundamentals of classical thermodynamics. Principles of statistical thermodynamics: probability, entropy, 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, nonideal solutions, and polyatomic molecules, high polymers, gravitation. May be concurrently scheduled with courses C123A-C123B. S/U or letter grading.

M223C. Nonequilibrium Statistical Mechanics and Molecular Biophysics. (4) (Same as Physics M223C) Lecture, three hours; discussion, one hour. Requisites: courses C215B and C223B, or Physics 215A. Fundamentals of nonequilibrium thermodynamics and statistical mechanical principles to physical chemistry. S/U or letter grading.


CM227. Synthetic Biology for Biofuels. (4) (Same as Chemical Engineering CM227.) Lecture, four hours; discussion, one hour. Requisite: course 153A. Engineering microorganisms for complex phenotype is common goal of metabolic engineering and synthetic biology. Production of advanced biofuels involves construction and expressing novel metabolic networks in cells. Such efforts require profound understanding of biochemistry, protein structure, and biochemical regulations and are aided by tools in bioinformatics, theoretical, and biophysical chemistry. 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.

228. Chemical Physics Seminar. (2) Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.

229. Introduction to Physical Chemistry Research. (2) Lecture, ninety minutes. Designed primarily for entering graduate physical chemistry students. S/U grading.

M230B. Structural Molecular Biology. (4) (Same as Molecular, Cell, and Developmental Biology M230B.) Lecture, three hours; discussion, one hour. Requisites: courses 30C, 30CL (may be taken concurrently). Requisite: course 30C. Theoretical and practical aspects of the techniques of structural biology; structures of globular proteins and RNAs; structures of fibrous proteins, nucleic acids, and polysaccharides; harmonic analysis of protein conformational changes; principles of electron, neutron, and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction. S/U or letter grading.

M230D. Structural Molecular Biology Laboratory. (2) (Same as Molecular, Cell, and Developmental Biology M230D.) Laboratory, ten hours. Corequisite: course M230B. Methods in structural molecular biology, including experiments utilizing single crystal X-ray diffraction, low angle X-ray diffraction, electron diffraction, optical diffraction, optical filtering, three-dimensional reconstruction from electron micrographs, and model building. S/U or letter grading.

235A. Seminar in Research in Organic Chemistry. (1 to 5 each) Seminar/Research group meeting, three hours. Advanced study and analysis of current topics in organic chemistry. Discussion of current research and literature in research lab. May be repeated for credit. S/U grading.


C240. Bionanotechnology. (4) Lecture, three hours. Requisites: courses 30C, 110A. Basic physical, chemical, and biological principles in bionanotechnology and its strategies for top-down and bottom-up fabrication of ordered biologically derived molecules, characterization and detection techniques, and in vitro materials and applications at nanoscale. Concurrently scheduled with course C140. S/U or letter grading.

241A-241Z. Special Topics in Organic Chemistry. (2 to 4 each) Lecture, two to four hours. Requisite 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.

242A. Structure and Mechanism in Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30C and 30CL (may be taken concurrently), 110B, and 113A, with grades of C– or better. Mechanisms of organic reactions. Acidic and basic catalysis; concepts of stereochemistry; isotope effects. Molecular orbital theory; orbital chemistry; pericyclic reactions. May be concurrently scheduled with course C143A. S/U or letter grading.

C243B. Organic Chemistry: Mechanism and Structure. (4) Lecture, three hours; discussion, one hour. Requisite: course C243A. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C143B. S/U or letter grading.

244A. Organic Synthesis: Methodology and Stereochemistry. (4) Lecture, three hours; discussion, one hour. Modern synthetic reactions and transformations involving organosilicon compounds. Special emphasis on regents useful in asymmetric induction and stereo-selective synthesis of structurally complex target molecules. S/U or letter grading.


C245. Theoretical and Computational Organic Chemistry. (4) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Requisites: courses 30C, 110A. Applications of theoretical and computational methods to the development of new synthetic organic and medicinal chemistry. S/U grading.

247. Organic Colloquium. (2) Seminar, two hours. Topics in organic chemistry and related areas presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.

248. Organic Chemistry Student Seminar. (2) Seminar, two hours. Current research discussed and presented by staff, outside speakers, postdoctoral fellows, and graduate students. Strongly recommended for first- and second-year organic chemistry graduate students. Presentation required if taken for letter grade. S/U or letter grading.


249B. Methods of Chemical Synthesis Organic/Inorganic/Organometallic. (2) Seminar, two hours. Designed for first-year graduate students to teach advanced problem-solving skills and critical thinking, with focus on problems and recent literature pertaining to chemical syntheses. S/U grading.

249C. Methods of Physical/Theoretical/Biophysical Chemistry. (2) Seminar, two hours. Designed for first-year graduate students to teach advanced problem-solving skills and critical thinking, with focus on problems and recent literature pertaining to physical, theoretical, and biophysical chemistry. S/U grading.

C250. 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, fundamentals of experimental design and methods of current research. May be repeated for credit. Concurrently scheduled with course C150. S/U grading.

C252. Methods of Bioinformatics. (4) (Same as Biocomputing M252.) Seminar, two hours every other week. Open to undergraduate and graduate students majoring in or currently considering careers related to bioinformatics and computational biology. Course focuses on the use of bioinformatics tools for understanding biological and medical data. Possible applications include microarray and proteome analysis, pathway analysis, and metagenomics. S/U grading.

C254. Introduction to Genomics. (4) (Same as Computational Biology M254.) Seminar, three hours. Theory and practice of the human genome project, the functional genomics research in the area of biology, and bioinformatics. S/U grading.


257. Physical Chemistry of Biological Macromolecules. (4) Lecture, one hour; discussion, one hour; laboratory, four hours. Study of hydrodynamic, thermodynamic, and optical techniques used to study structure and function of biologi- cal macromolecules. S/U or letter grading.

258. Advanced Topics in Biochemistry and Molecular Biology. (4) Lecture, two hours. Critical analysis of experimental design and methods in biochemistry and molecular biology. In-depth analysis of literature in one or more areas of current research. May be repeated for credit. S/U or letter grading.

CM259. Mechanisms of Gene Regulation. (4) (Formerly numbered C259A.) (Same as Biological Chemistry M259.) Lecture, four hours. Requisite: course 153B. RNA polymerase structures and mechanisms; promoter recognition and transcription cycle; mechanisms of activation; transcriptional poising and elon-
gation control; Mediator of transcription; chromatin remodeling and modification; epigenetic regulation; co-transcriptional and transcription-coupled RNA processing; impact of transcription on mRNA processing and stability; nuclear export of mRNA. Concurrently scheduled with course CM160A. S/U or letter grading.

C260A. Introduction to Bioinformatics. (4) (Same as Bioinformatics M221, Computer Science CM221, and Human Genetics M260A.) Lecture, four hours; discussion, two hours. Requisites: Courses CM32 or Program in Computing 10C, CM160A, or Program in Computing 110C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 100A, 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 CM160A. S/U or letter grading.

C260B. Algorithms in Bioinformatics. (4) (Same as Bioinformatics M222 and Computer Science CM222.) Lecture, four hours; discussion, two hours. Requisites: Courses CM32 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 CM260A is not requisite to course CM260B. Designed for engineering students as well as students from biological sciences and medical school. Development and application of computational approaches to answer research questions, with focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques. Computational techniques include dynamic programming, divide-and-conquer, and greedy algorithms. Concurrently scheduled with course CM160B. Letter grading.

C268L. Advanced Bioinformatics Computational Laboratory. (2) Laboratory, four hours; discussion, two hours. Requisite: course CM260A. Corequisite: course CM260B. Development and application of computational approaches to ask and answer biological questions by implementing variety of bioinformatics and systems biology algorithms. Advantages and disadvantages of different algorithmic methods for studying biological questions and preliminary understanding of how to construct a pipeline of analyses and how to deal with the output of the pipelines. Emphasis on computational thinking and problem solving. May be repeated for credit. S/U or letter grading.


C276A. Group Theory and Applications to Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 113A and 172, with grades of C– or better. Theory of inorganic reactions; mechanistic principles; 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 polymerization, and photochemical reactions of inorganic species. May be concurrently scheduled with course C276L. S/U or letter grading.

C276B. Physical Methods in Inorganic Chemistry. (4) Lecture, three hours. Requisite: course C276A. Theory and applications of spectroscopic techniques, including magnetic resonance and vibrational and nuclear magnetic resonance; electronic and magnetic properties of inorganic compounds and materials. 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 of other Latina/Latino and indigenous populations in the Americas.

Addressing local, national, and transnational contexts, the Chicana and Chicano Studies curriculum at UCLA explores race, class, gender, and sexuality paradigms as they have shaped the history of the field; as well as new directions in the study of Chicanas/Chicanos and Latinas/Latinos, including border and transnational studies; expressive arts; history, literature, and language of Americas; and labor, law, and policy studies.

Departmental faculty members, situated in one of the most diverse cities in the world, utilize Los Angeles as a laboratory for studying the social transformations taking place in California, the Southwest, and the U.S. The department provides students with the interdisciplinary research tools necessary to advance knowledge in the field, provide academic leadership, and serve community needs with academic resources.

Undergraduate Study
The Chicana and Chicano Studies Department offers a designated capstone program for undergraduate majors. Students have options for completing a senior honors thesis, individual research, or senior project under the direction of a faculty member. Alternatively, students may elect to complete an upper-division course that includes additional coursework culminating in completion of a capstone paper or creative project. Through their capstone work, students are expected to demonstrate working knowledge of the major findings and methods of the disciplines from which they have drawn their Chicana and Chicano studies coursework, show their capacities for conceiving and executing a research or creative project on a self-selected topic as well as identifying and evaluating relevant documentation pertaining to that project, demonstrate appropriate levels of scholarly discourse on their selected topic, and develop greater capacity to build 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/acclimatization 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, 143, M144, CM147, 151, 152, 153, M154, M155A, M156A, 163, 176, 184, 191


No more than 8 units of 188, 191, and 199 courses may be applied toward the major; enrollment in the two 199 courses must be approved in writing by the department chair.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Honors Program
The Chicana and Chicano Studies honors program provides the opportunity for motivated and dedicated students to undertake a yearlong 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, 101, and course from 89, 89HC, 189, or 189HC.

The申请 for admission must be submitted in spring quarter of the year prior to admission to the program, with the advice and consent of a faculty sponsor. The proposal, research, data collection, analysis, and writing of the thesis (or the creative equivalent to this process) take place in Chicana and Chicano Studies 198A, 198B, and 198C, which may not be applied toward the major requirements. An honors thesis of at least 30 pages or a significant creative project is required.

Students who are currently undertaking the optional multidisciplinary senior thesis and who are eligible for the honors program may opt to switch to the honors program (provided it does not delay their progress toward the degree) with the approval of the department.

Optional Multidisciplinary Senior Thesis
Chicana and Chicano Studies majors have the option during their senior year to enroll in two 199 courses with the intention of producing an undergraduate thesis. The first term includes thesis conceptualization and formulation, along with preliminary data collection for the thesis. The second term entails completion of the data collection, analysis of the data, and writing of the thesis. Enrollment in the two 199 courses is with the advice and consent of a faculty member.

Chicana and Chicano Studies Minor
The Chicana and Chicano Studies minor complements study in another traditional field. Students participating in the minor are required to complete both a departmental major in another discipline and the Chicana and Chicano Studies minor.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units, and file a petition with the student advisor 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.

UCLA transfer admissions guide is available at the Graduate Division website.
Chicana and Chicano Studies

Lower-Division Courses

M5A-MSB-MSC. Elementary Nahautl. (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 M5B, which is enforced requisite to M5C. Introduction to Aztec language of central Mexico. Coverage of basic Nahautl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

10A. Introduction to Chicana/Chicano Studies: History and Culture. (5) Lecture, three hours; discussion, one hour. Interdisciplinary survey of diverse historical experiences, cultural factors, and ethnic/racial paradigms. Includes indigenousness, gender, sexuality, language, and borders, that help shape Chicana/Chicano identities. Emphasis on critical reading and writing skills. Letter grading.

10B. Introduction to Chicana/Chicano Studies: Social Structure and Contemporary Conditions. (5) Lecture, three hours; discussion, one hour. Multidisciplinary examination of representation, ideologies, and material culture of Chicanas/Chicanos, including colonialism, race, labor, immigration, poverty, assimilation, and patriarchy. Emphasis on critical reading and writing skills. Letter grading.

M15A-M15B-M15C. Intermediate Nahautl. (4-4-4) (Same as Indigenous Languages of the Americas M15A-M15B-M15C and International and Area Studies M15A-M15B-M15C.) Lecture, four hours. Enforced prerequisites: courses M5A, M5B, M5C. Course M15A is enforced requisite to M15B, which is enforced requisite to M15C. Taught primarily in Nahautl. Examination of Nahautl (Aztec) language of central Mexico at intermediate level. Coverage of Nahautl grammatical analysis on reading, writing, conversion, and comprehension. P/NP or letter grading.

M18. Leadership and Student-Initiated Retention. (2) Seminar, one hour. Designed for students of the American Indian Studies M18, and Asian American Studies M18.) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M18. Exploration of student retention issues at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


88. Sophomore Seminars: Chicana and Chicano Studies. (2) Seminar, two hours. Limited to lower-division students. Readings and discussions assigned to introduce students to current research in Chicana/Chicano studies. Culminating project may be required. May not be applied toward departmental major or minor requirements. May be repeated for credit with topic change. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Chicana and Chicano Studies. (2) Seminar, two hours. Requisite: course 10A or 10B. Current topics and particular research methods in Chicana and Chicano studies through readings and other assignments. May be repeated for credit. P/NP or letter grading.

98. Professional Schools Seminars. (2) Seminar, two hours. Limited to 20 students. Introduction to issues of professional (nonacademic) settings and careers through readings and other assignments. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students. Grammar of research methodology. 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

100S. Barrio Organization and Service Learning. (5) Seminar, four hours; discussion, two hours; field placement, six hours. Limited to juniors/seniors. Service learning placement in community-based organization, barrio union, or service-oriented nonprofit organization. Study of community organizations play in improvement and change of Chicana/Chicano communities. Students meet on regular basis with instructors and provide periodic reports of their experience. Letter grading.

101. Theoretical Concepts in Chicana and Chicano Studies. (5) Lecture, four hours; discussion, one hour. Requisite: course 10A or 10B. Survey of different theoretical approaches to field of Chicana and Chicano Studies. Letter or P/NP grading.

M102. Mexican Americans and Schools. (4) (Same as Education M102.) Seminar, two hours; discussion, two hours. Theoretical and empirical overview of Chicana/Chicano educational issues in U.S., with special emphasis on race, gender, class, and immigrant status on Chicana/Chicano educational attainment and achievement. Examination of how historical, political, and economic forces impact Chicana/Chicano educational experience. P/NP or letter grading.

M103C. Origins and Evolution of Chicano Theater. (5) (Same as Theater M103C.) Lecture, three hours. Designated as a honors seminar. Discussion 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: Beginnings of Chicano Theater Movement. (5) (Same as Theater M103D.) Lecture, three hours. Analysis and discussion of historical and political events from 1965 to 1980, as well as theatrical traditions that led to emergence of Chicano Theater. 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 litera-
Latino communities in Southern California, including Chicana/Chicano visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicano journalism; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work with agency involved with Chicana/Chicano and/or Latin@ Latino community and selected by instructor. P/NP or letter grading.


M106B. Diversity in Ageing: Roles of Gender and Ethnicity. (4) (Same as Gender Studies M104C, Gerontology M104C, and Social Welfare M104C.) Lecture, four hours. Survey of tradition of complexity of variables related to diversity of age population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in multidisciplinary approach utilizing faculty from va- rieties 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 forms and functions of Chicana and Chicano help family help shape experiences of Latina/Latino families in U.S. society and how these interactions also help shape individual experiences within families. Exam- ination of family, race, class, and gender as sociological con- cepts. 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 play important roles in shaping these experiences. Discussion of roles of structure and space for agency in each context. Con-currently scheduled with course C212. P/NP or letter grading.

M108A. Music of Latin America: Mexico, Central America, and Caribbean Isles. (5) (Same as Ethnomusicology M108A) Lecture, four hours; discussion, one hour. Surveys of music of contemporary musical culture. P/NP or letter grading.


CM110. Chicana Feminism. (4) (Same as Gender Studies CM132A.) Lecture, four hours. Enforced re- quirement, 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 issues. Examination of Chicanas both within Chicana/Chicano community and dominant so- ciety. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM214. P/NP or letter grading.

111. Chicana/Latina Intellectual and Latino/Latina Intel- lucial Traditions. (5) Lecture, five hours. General view of philosophical, cultural, and social thought as well as intellectual traditions in Americas. Roles of writers as intellectuals and cultural/political strategists, and as definers of (national) identity, social reality, and struggles of liberation. Letter grading.

113. Day of Dead Ritual. (4) Lecture, four hours; dis- cussion, one hour (when scheduled). Introduction to philosophical roots and evolution of traditional cele- bration of Day of Dead ritual. Contemplation of indig- enous, Spanish, Mexican, Chicano, and other influ- ences and manifestations of this ritual. Special atten- tion to Nahuatl language and worldview related to this ancient ritual, such as ancient calendar systems. De- signed to motivate critical thinking about what is ob- served in altars today and impact globalization has on tradition. P/NP or letter grading.

M114. Chicanos in Film/Video. (5) (Same as Film and Television M114.) Lectures/screenings, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicano cinema as political, socio- economic, cultural, and aesthetic practice. Examina- tion of film expression of Mexicans and Chi- canos in four Hollywood genres—silent greater 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, in- cluding Zoot Suit, Ballad of Gregorio Cortez, and Born in East L.A. Contemplate historical and current ap- plication of Mexican American filmic content that critiques Hollywood image of Chi- canos. 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 M115.) Lecture, three hours. Confronting aesthetics from classical perspec- tive of art as intuition, examination on cross-cultural basis of diverse musical contexts within vast multicul- tural metropolis of Los Angeles, with focus on various musical networks and specific experiences of Chi- cano/Latino, African American, American Indian, Asian, rock culture, tradicional, and commercial music industry. P/NP or letter grading.

M116. Chicano/Latino Music in U.S. (5) (Same as Ethnomusicology M116.) Lecture, four hours; discus- sion, one hour. Historical and analytical examination of musical expression of Latino peoples who have in- habited 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: ade- quate 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/Latino history. Like U.S. counterpart, Mexi- can cinematic discourse portrayal of Chicanas/Chi- canos has been plagued by use of stereotypes that limit visual representation. Explo- ration of causes and effects for such obtuse cine- matic 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, and Asian American Studies M168.) Lecture, four hours. Exploration of issues in outreach and re- tention of students in high education, especially through student-initiated efforts, activities, and services, with focus on UCLA as case. May be re-peated twice for credit. Letter grading.

M119. Chicano/Latino Community Formation: Critical Perspectives and Oral Histories. (4) (Same as U.S. Experience M140.) Lecture, four hours. Analysis of historical formation and develop- ment of Chicano/Latino communities in 20th century, with focus on labor, immigration, economic struc- tures, electoral politics, and international dimensions. Letter grading.


M121. Issues in Latin@ Poverty: Mexican and Central American Voices from Los Angeles. (4) (Same as Labor and Workplace Studies M121 and Urban Planning M140.) Lecture, four hours. Examina- tion of key issues (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 population and application of them in comparative context while exploring differences be- tween Mexican and Central American immigrants. Social conditions and forces that help us understand lives of poor people in context while looking at differences between two major Latino-or- igin populations in Los Angeles. Critical analysis of new forms of urban poverty in contemporary Amer- ican society. Letter grading.

M122. Planning Issues in Latino/Latina Communities: Preserving and Strengthening Community Assets of Mexican and Salvadoran Los Angeles. (4) (Same as Labor and Workplace Studies M122 and Urban Planning M171.) Lecture, four hours. How community and economic development interact, role of assets in community development, and unique synergies and pitfalls that enable or disable communi- ties from developing to their potential. How to strengthen and how to preserve community resources in urban neighborhoods. Letter grading.

123. Applied Research Methods in Latino Communities. (4) Lecture, three hours. Through combination of lectures, key readings, and several experiments, in- troduction to several applied research methods that are highly effective in producing sound and method- ologically rigorous studies on poor and/or Latino communities, including important data that can be used for critical analysis and policy recommenda- tions. Letter grading.

M124. Latino Immigration History and Politics. (4) (Same as Honors Collegium M143.) Lecture, four hours. Overview of Mexican, Central American, and Latino/Latina immigration to U.S., examining social, political, and economic conditions. Comparison of dif- ferent waves of Latin American immigration have oc- curred. 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 be- tween Mexico and U.S., using political economy ap- proach to study of asymmetrical integration between advanced industrial economies and developing coun- tries. P/NP or 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 so- cial context of farmworker organizing, including its mutricrional origins and its influence on fight for equality of working women. Specific focus on organ- izing of United Farm Workers and Farm Laborers Or- ganizing 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 organized labor; strategies for social change and economic equity pur- sued through organized labor and other means. Letter grading.

129. Field Research Methods in Labor and Work- place Studies. (5) Lecture, four hours; field studies, two hours. Designed for juniors/seniors. Discussion of roles of union and nonunion worker organizations in society and in improvement of quality of life for Latina- /Latina/Latino communities. Review of field research methods to labor organizations and work- place sites, especially participant observation, inter- view techniques, and grounded theory and other methods. Letter grading.

M130. Worker Center Movement: Next Wave Orga- nizing 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 multiethnic and multiracial campaigns for workplace and economic justice. Transformation of cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

131. Barrio Popular Culture. (4) Lecture, three hours. Construction of model by which to organize barrio as metaphor for community. Examination of representations in icons, heroes, and barrio as metaphor for community. Letter grading.

132. Border Consciousness. (4) Formerly numbered 132. (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M132.) Lecture, three hours; discussion, one hour (when scheduled). Investigation through history, popular culture, and mass media of bilingual and bicultural identities produced by geographical and cultural space between Mexico and U.S. Special attention to border consciousness as site of conflict and resistance. Letter grading.


134A. The Chicanas/Latinas Experience. (9) (Same as Civil Engagement M134SL and Labor and Workplace Studies M134SL.) Lecture; two hours, discussion; two hours; field placement, two hours. Survey and exploration of immigrant landscape in Los Angeles basin. Writing in pairs to reflect, settle, and incorporate immigrants in daily life. Focus on civil society to explore multiple forms of interventions and impacts that take place in multiple communities across Los Angeles basin. Service learning partnerships focus on organizations addressing immigration concerns. Letter grading.

135. Bilingual Writing Workshop. (4) Formerly numbered 135. (Same as Gender Studies M135.) Seminar, four hours. Limited to juniors/seniors. Writing sample required; access to course webpage mandatory; need not be bilingual to enroll. Technical instruction 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/ Chicana and Latina/Latino short story collections. Peer critique of weekly writing assignments. Emphasis on narrative techniques such as characterization, plot, conflict, setting, point of view, and dialogue, and real and imagined as well as Chicanoesque literature style. Some attention to process of manuscript preparation, public reading, and publication. Concurrently scheduled with course C235. Letter grading.

136. Censored! Art on Trial. (4) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M136.) Lecture, four hours. Examination of censorship in visual arts, particularly art of queer Chicana/ Chicana and Latina/Latina artists such as Alma Lopez, Esté Hernández, and Alex Doris. Other censored artists include feminist artist Yolanda López, lesbian artist Robert Maplethorpe and David Wojnarowicz, painter Chris Ofili, photographers Sally Mann and Andres Serrano, printmaker Enugu Chagoya, muralist Nori Olabi, writer Salmon Rushdie, and four performance artists—Karen Finley, Tim Miller, John Fleck, and Holly Hughes—whose work was withdrawn through the process of Pop Culture Endowment for Arts (NEA) in 1990 after they had successfully passed through NEA’s peer review process and who came to be known as NEA Four. P/NP or letter grading.

137. Maya Art and Architecture. (4) (Same as Art History CM139A.) Lecture, three hours. Requisite: course 27. Study of art of selected Maya-speaking cultures of southern Mesoamerica from circa 2000 BC to Conquest, with particular emphasis on history and iconography. P/NP or letter grading.

138A. Space, Place, and Race. (4) Seminar, four hours. Examination of theories of spatial formation and their import for study of race and ethnicity in the U.S. Themes include trajectories from inter disciplinary list of readings to investigate ways racial formation is embedded in property, maps, streets, and borders. Themes include introduction to spatial theories of writers and new cartography, boundaries, and transgression. How space has shaped racial formation in multiracial places. Investigate maps, built environment, and multimedia world. P/NP or letter grading.

138B. Barrio Suburbanism. (4) Seminar, four hours. Examination of barrio suburbanism, in which Chicano and Latino impacting working-class and middle-class suburbs to reshape geography of metropolitan centers. Building upon urban studies of roles of public policy and planning in formation of barrio, how urban forms operate in multiracial and regional context. Points of intersection and conflict that illuminate how Chicana/Chicana and Latina/ Latino populations have impacted economic, social, and political structures of metropolitan region. Major themes include urban policy, planning history, mapping, relational racial formation, and pursuit of regional democracy. P/NP or letter grading.

139. Topics in Chicana/Chicana and/or Latina/Latina Literature. (5) (Same as English M191B.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Chicana/Chicana and/or Latina/Latina literature. Topics include may include literature and culture: Chicana/Chicana visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; feminism, Chicana/Chicana identities; New Mexican literature. Specific literary genres may be repeated for credit with topic or instructor change. P/NP or letter grading.

M140A. Diasporic Nonfiction: Media Engagements with Memory and Displacement I. (4) (Same as African American Studies M170A.) Seminar, three hours. Video production course, with emphasis on autobiographical, critical, and performance-based modes of nonfiction media making, drawing on practices of diasporic filmmakers who have grappled with suppressed collective memories of displacement, trauma, exile, and displacement. Students mean to make videos about memory in places where direct cues to remembering cannot be seen? Introduction to concepts from films and readings. Production assignments for students to develop strategies of how to represent history, memory, family dynamics, and lived experience according to perspectives and interests of diasporic subjects. In Progress grading (credit to be given only on completion of course M140B).

M140B. Diasporic Nonfiction: Media Engagements with Memory and Displacement II. (4) (Same as African American Studies M170B.) Seminar, three hours. Enforced requisite: course M140A. Students complete 20- to 30-minute video projects about issues or experiences central to everyday lives of collectives of diasporic peoples. They learn to propose, record, edit, and distribute their work online. Students mean to make videos about memory in places where direct cues to remembering cannot be seen? Introduction to concepts from films and readings. Production assignments for students to develop strategies of how to represent history, memory, family dynamics, and lived experience according to perspectives and interests of diasporic subjects. In Progress grading (credit to be given only on completion of course M140B).

C141. Chicana and Latin American Women’s Narrative. (4.) Lecture, four hours. Preparation: reading knowledge of Spanish (level 4). Analyses, comparisons, and discussion of narrative literary production of women in the Americas; comparison with American counterparts in English and Spanish, with particular focus on how each group deals with gender, ethnic, and class issues. Concurrently scheduled with course C251. Letter grading.

M142. Mesoamerican Literatures. (4) Lecture, four hours. Preparation: reading knowledge of Spanish (level 4). Survey of premises of Mesoamerican literatures, including myths, lyrics, poetry, religious celebrations, rituals, and drama, specifically of Aztec and Mesoamerican peoples prior to European contact. Letter grading.

143. Mestizaje: History of Diverse Racial/Cultural Roots of Mexico. (4) Lecture, four hours; discussion, one hour (when scheduled). Historical examination of diverse racial and cultural roots of Chicanos and Chicanas. Utilizing theoretical frameworks of mestizaje, Aztlán, indigenismo, La Raza Cósmica, and la mujer tropical, examines the contributions of groups who have contributed to formation of Mexican national culture. Development of race relations in Mexico during colonial period, with focus on analysis of Nahua (Aztecs), Mixtecs, Spaniards, and African slave population. Analysis of Asian immigration to Mexico and California during national period, specifically examination of migration and adaptation experiences of Chinese, Japanese, and Punjabi-Indian immigrants. P/NP or letter grading.

M144. 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 in Latin America and Caribbean to examine diverse social movements and locations from which women have longed political and gender struggles. Discussion of forms of feminism and women’s resistance that have emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and new social movements concerned with race, sexuality, feminism, and human rights. Through comparative study of women’s movements in diverse political systems as well as national and transnational arenas, students gain understanding of historical contexts and political conditions that give rise to women’s resistance, as well as major debates in field of study. P/NP or letter grading.

M145A. Introduction to Chicano Literature: Literature to 1965. (4) (Same as Spanish M145A.) Lecture, three hours. Requisite: Spanish 25 or 27. Introduction to texts representative of Chicano literary heritage. Sampling of genres, as well as historical and geographical settings and points of view characteristic of work written by Chicanos during 20th century. Most required reading in Spanish. Bilingual and English works are included and discussed. Reading and analysis of number of important texts and critical statements pertaining to characteristics and development of Chicano literary corpus. Letter grading.


M146. Chicano Narrative. (4) (Same as Spanish M155A.) Lecture, three hours. Requisite: Spanish 25 or 27. Introduction to major Chicano narrative genres—novel, romance, satire, autobiography, crónica/Semblanza, Chicana detective novel, and Chicana/Mexican solidarity fiction encompassed within their own geographic, cultural, and historical contexts, as well as within history of narrative forms. P/NP or letter grading.

C147. Transnational Women’s Organizing in Americas. (4) (Same as Gender Studies M147C.) Lecture, four hours. Feminist theories of transnational organizing. Examination of gender and race as central to processes of globalization and essential to economic and political struggles encompassed within transnational power relations. Exploration of how questions of race and gender influence global economic policies and impact local actors and their communities. In Progress grading. Courses that study global and technological issues cross national borders with growing frequency, discussion of process of accelerated global-
ization has been linked to feminization of labor and migration, environmental degradation, questions of diaspora, sexuality, and cultural displacement, as well as growing global militarization. Problems and issues created by globalization and cultural, social, and political resonance of the transnational organizing. Concurrently scheduled with course C215. P/NP or letter grading.

M148. Politics of Struggle: Race, Solidarity, and Resistance. (Formerly numbered 148.) (Same as African American Studies M148.) Lecture, four hours. Examination of Chicana/Chicano intergroup relations and political coalitions with other Latinos, African Americans, and Euro-Americans, especially in communities undergoing rapid changes in demographic composition. Letter grading.

149. Gendered Politics and Chicana/Latina Political Participation. (4) Lecture, four hours. Examination of Chicanas and Latinas as participants, organizers, and leaders in communities, workplaces, labor unions, and government. Survey of Chicanas/Latinas in politics and as policymakers in appointed and elected offices. Analysis of gendering of politics and political behavior. Letter grading.

150. Affirmative Action: History and Politics. (4) Lecture, four hours; discussion, one hour (when scheduled). Historical exploration of political economic, and social-normative context in which affirmative action policies and programs were conceived and implemented. Review of impact on Chicanas/Chicanos, Latinas/Latinos, and other communities. Specific analysis of university admissions, hiring and contracting practices, and state initiatives. Letter grading.

151. Human Rights in Americas. (4) Lecture, four hours. International human rights laws in North, Central, and South America and U.S. foreign policy in context of historical, political, social, and legal issues and court decisions involving U.S. and its role and relations with institutional and governmental transnational, transhistorical, and contemporary development of regional and international law, institutions, law, and norms related to promotion and protection of human rights. P/NP or letter grading.


M158. Chicana History. (4) (Same as Gender Studies M151.) Lecture, four hours. Examination of Chicana/Chicana history, focusing on the history and contemporary role of the Chicana/o community within the historical context of U.S. and Mexico. Lectures, special presentations, and field research and/or library work. P/NP or letter grading.

159A. History of Chicano Peoples. (4) (Same as History M151A.) 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 (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 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, domination, and resistance. Developments related to historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and field research, and submission of paper. P/NP or letter grading.

M159B. History of Chicano Peoples. (4) (Same as History M151B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey 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 forces and policy issues affecting community. Within framework of domination and resistance, discussion deals with 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 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 Chicano language use, including history and Chicana/o languages, (2) types and social functions of Chicano speech (pa-chuco, caíó, Spanglish), sexist language, and multilingualism and monolingualism and (2) major social issues connected with language use, including gender and other urban ethnic populations. Letter grading.


164SL. Oral History: Latino New Immigrant Youth. (5) (Formerly numbered M164SL) Seminar, three hours; tutoring, three hours. Theory, methodology, and practice of oral history, together with background information on Mexican, Central American, and Latin American immigration. Emphasis on oral history and testimonio methods. P/NP or letter grading.

165. Latinos and Latinas 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. Legal History of Chicana/Chicana Classroom. (4) Seminar, four hours. Introduction to pedagogy of Paulo Freire and examination of historical and contemporary problems circumscribing Chicana/Chicana education. Central focus to offer Freirean alternative to answer theoretical, methodological, practical, and policy questions about schooling of Chicanas/Chicanos in U.S. P/NP or letter grading.

167SL. Taking It to Street: Spanish in Community. (5) Seminar, M165SL) Seminar, five 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, spoken, audio, and text) images disseminated by television news programs to learn how nation 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. Representations of Indigenous Peoples in Americas. (4) Lecture, four hours. Strongly recommended requisite: course 1101. 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 indigenismo 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 Chicana/Chicano 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 alphabetic writing, and national literacy campaigns. 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 powerful people to those of less power. In this case laughter becomes weapon used against Latinos and immigrants. With rise of Latinos in last decade, there has been increase of various guises of anti-Latino humor appearing in more mediasaturated popular culture. Exploration of theorizing, as well as today's myriad examples, of such humor to develop cultural literacy of social work it accomplishes. Letter grading.

172. Chicana and Chicano Ethnography. (4) Lecture, four hours. Culture change theory encompasses such issues as innovation, syncretism, colonialism, modernization, urbanization, migration, and acculturation. Examination of methods anthropologists/ethnographers use in studying and analyzing culture change within ethnohistorical background of Mexican and Mexican American people to clarify social and cultural origins of modern habits and customs and more importantly, unravel various culture change threads of that experience. Topics include technology and evolution, mestizaje, imperialism, expansionism, expansionism, immigration, industria, ethnicity, and adaptation. Field project on some aspect of culture change required. P/NP or letter grading.

173. Nonviolence and Social Movements. (4) (Same as African American Studies M173 and Labor and Workplace Studies M173.) Lecture, three hours; discussion, one hour. Overview of nonviolence and its impact on social change, both historically and in its present context in contemporary society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of some historic contributions of civil rights movements, nonviolent activism, and social change within recent U.S. history. Examination of particular lesson of nonviolent movements as they impact social change organizing 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. Requisites: courses M174A, M174B. Limited to juniors/seniors. Application of student knowledge and experience to help students in partner schools to develop peer mediation programs to be sustained by future UCLA students. Work at partner school sites and demonstration of firm grasp of concepts of conflict resolution through weekly reflective journals, discussion through biweekly meetings, and final journal entry. Application of critical thinking, reflective practice from earlier courses, and reflection on student field experiences to deepen understanding of violence, its causes, and what schools can do to mitigate it. Letter grading.

M174C. Alternatives to Violence: Peer Mediation in Public Schools. (4) (Same as Education M145C.) Lecture, one hour; fieldwork, three hours. Requisites: courses M174A, M174B. Limited to juniors/seniors. Application of student knowledge and experience to help students in partner schools to develop peer mediation programs to be sustained by future UCLA students. Work at partner school sites and demonstration of firm grasp of concepts of conflict resolution through weekly reflective journals, discussion through biweekly meetings, and final journal entry. Application of critical thinking, reflective practice from earlier courses, and reflection on student field experiences to deepen understanding of violence, its causes, and what schools can do to mitigate it. Letter grading.

180. Chicana/Chicano Schooling and Community. (4) (Same as History M180.) Lecture, four hours. History of Mexican American schools and community activism. (4) Seminar, four hours. Overview of Chicana/Chicana school issues in U.S., with special emphasis on several important historical events that have affected Chicana/Chicano education—Mendez versus Westminster (1947) desegregation case and 1968 high school Chicana/Chicana student walkouts. Through oral history, projects, observation, and legacy of Sylvia Mendez, who experienced segregation in one Mexican school in 1940s, Sal Castro, Chicana teacher and central figure in 1968 walkouts, and Cesar Chavez (early 1970s). Examination of how historical, social, and political forces have impacted Chicana/Chicana educational experiences. P/NP or letter grading.

181. History of Chicanas/Chicanos Los Angeles, 20th Century. (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 conditions. Definitions and development of language policy and planning, history of general and educational language policies in U.S., demographic profile of language diversities, and current language and educational policy issues in U.S. Comparisons with selected international cases. Concurrently scheduled with course C274. P/NP or letter grading.

182. Chicana/Chicana Schooling and Community Activism. (4) Seminar, four hours. Overview of Chicana/Chicana school issues in U.S., with special emphasis on several important historical events that have affected Chicana/Chicano education—Mendez versus Westminster (1947) desegregation case and 1968 high school Chicana/Chicana student walkouts. Through oral history, projects, observation, and legacy of Sylvia Mendez, who experienced segregation in one Mexican school in 1940s, Sal Castro, Chicana teacher and central figure in 1968 walkouts, and Cesar Chavez (early 1970s). Examination of how historical, social, and political forces have impacted Chicana/Chicana educational experiences. P/NP or letter grading.


emphasis on regional communities of California, New Mexico, and Texas in Spanish/Mexican borderlands as situated within U.S. national context. Letter grading.

M185. Whose Monument Where: Course on Public Art. (4) (Same as Art M185A and World Arts and Cultures M126) Lecture, four hours. Recommended corequisite: course M186A, M186B, or M186C. Examination of public monuments in U.S. as basis for cultural identity and cultural American values from perspective of artist. Use of urban Los Angeles as textbook in urban space issues such as who is public, what is public space at end of 20th century, what defines neighborhood. Different ethnographic uses of public space differently. P/N or letter grading.

M186A. Beyond Mexican Mural: Beginning Muralism and Community Development. (4) (Same as Art M186A and World Arts and Cultures M125A) Studio/lecture, four hours. Corequisite: course M186AL. Investigation of muralism as method of community education, development, and empowerment. Exploration of issues surrounding the collaborative process of designing, painting, and working with community participants. P/N or letter grading.

M186AL-M186BL-M186CL. Beyond Mexican Mural: Muralism and Community Laboratory. (4—4—2) (Same as Art M186AL-M186BL-M186CL and World Arts and Cultures M125AL-M125BL-M125CL) College course M186AL and Studio course M186BL, which is corequisite to M186CL. 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 as students independently and in collaborative teams design, research, and produce large-scale paintings and digital murals. Students are expected to place in community setting, P/N or letter grading. M186AL. Beginning. Laboratory, four hours. Corequisite: course M186B; M186CL. Advanced. Laboratory, two hours. Corequisite: course M186C.

M186B. Beyond Mexican Mural: Intermediate Muralism and Community Development. (4) (Same as Art M186B and World Arts and Cultures M125B) Studio/lecture/four hours. Requisites: courses M186A, M186AL. Corequisite: course M186BL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting of community. Students research, design, and work with community participants. Continuation of project through states of production to full scale and community approval. P/N or letter grading.

M186C. Beyond Mexican Mural: Advanced Muralism and Community Development. (4) (Same as Art M186C and World Arts and Cultures M125C) Studio/lecture, six hours. Requisites: courses M186B, M186BL, and 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 exhibition. This is more advanced independent projects. P/N or letter grading.


188. Special Courses in Chicana and Chicano Studies. (4) Seminar, three hours. Some sections may require fee. Departmentally spon- sored experimental or temporary courses, such as those taught by visiting faculty members. May be re- peated for credit. P/N or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Departmentally spon- sored 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 major or minor requirements. Honors content noted on transcript. P/N 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. Indi- vidual study with lecture course instructor to ex- plore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contracts re- quired. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Chicana and Chicano Studies. (4) Seminar, two hours. Designed as a col- laborative effort for small groups of 4—6 under-graduates interested in similar research areas. Faculty, graduate students, and advanced undergraduate stud- ents undertaking supervised tutorial research in seminar setting with one or more faculty members to present reports, discuss research meth- odology, and provide feedback on other students’ work. Culminates in public symposium. Students expected to present polished position papers on their research. May be repeated for credit. P/N or letter grading.

191. Variable Topics Research Seminars: Chicana and Chicano Studies. (4) Seminar, three hours. Lim- ited to juniors/seniors. Research seminar organized around readings and engaged discussion of critical topics of interest in field. Exploration of issue, its theo- retical implication for field, and practical implications for communities. Final research project required. May be repeated for credit. P/N or letter grading.

192A. Undergraduate Practicum in Chicana and Chicano Studies. (2) Seminar, four hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students who assist in preparation of materials and/or development of innova- tive programs or courses of study under guidance of faculty members in small group settings. Required to culminate at one-on-one setting. May not be applied toward departmental major or minor elective requirements. May be repeated for credit. P/N or letter grading.

193. Readings/Speaker Series Seminars: Chicana and Chicano Studies. (1) Seminar, one hour. Limited to undergraduate Colloquia Series students. Reading and discussion of journal articles associated with speaker topics to enliven postcolloquia discussions. May not be ap- plied toward departmental major or minor elective re- quirements. May be repeated for credit. P/N or letter grading.

194. Research Group Seminars: Chicana and Chi- cano Studies. (2) Seminar, one hour. Designed for undergraduate students who are part of research group, whose dissertation is the subject of discussion. Discussion of current literature in field or of re- search of faculty member, guest or visiting scholar. Use of spec- ific research method on selected topic, necessary. May be repeated for credit. P/N grading.

195. Community Internships in Chicana and Chi- cano Studies. (2) Seminar, two hours; field place- ment, eight hours. Limited to juniors/seniors. Intern- ship in supervised setting in community agency or business. Students meet on regular basis with in- structor and provide periodic reports of their experi- ence. May be repeated for credit. Individual contract with supervising faculty member required. P/N or letter grading.

195CE. Comparative Approaches to Community and Chicana Chicano Studies. (3 each) American Studies M195CE, American Indian Studies M195CE, Asian American Studies M195CE, and Gender Studies M195CE.) Tutorial, one hour; field- work, eight to 10 hours. Limited to juniors/seniors. In- ternship in corporate, governmental, or nonprofit set- ting coordinated through Center for Community Learning. Comparative study of race, gender, and in- digenity in relation to contemporary workplace dy- namics. Students complete independent assignments, attend biweekly meetings with graduate stu- dent coordinator, and write final research paper. Faculty supervisor and graduate student coordinator coordinate readings of required readings that examine issues related to internship site. Individual contract with supervising faculty member required. P/N or letter grading.

196. Research Apprenticeship in Chicana and Chica- no Studies. (2 to 4) Tutorial, three hours per week per unit. Requisite: course 10A or 10B. Limited to ju- nior/seniors. Entry-level research apprenticeship for upper-division student under guidance of faculty mentor. Participation in all aspects of research project, including library research, reading materials, and compilation of data, with scheduled meetings throughout term with faculty mentor for discussion of project. May not be applied toward departmental major or minor requirements. May be repeated under different contract; consult department. Individual con- tract required. P/N grading.

197. Individual Studies in Chicana and Chicano Studies. (2 to 4) Tutorial, four hours. Requisites: courses 10A, 10B, 10. Limited to juniors/seniors. Indi- vidual intensive study, with scheduled meetings to be arranged between faculty and student. As- signed reading and tangible evidence of mastery of subject matter required. May be repeated for max- imum of 8 units. Individual contract required. P/N or letter grading.

197C. Individual Capstone Studies. (2) Tutorial, one hour. Requisites: courses 10A and 10B, or 101. Lim- ited to departmental junior/senior majors. Guided study led by faculty supervisor. Instructor meets with student to help develop culminating capstone project, so it conforms to departmental capstone project guidelines. Must be taken in conjunction with one upper-division departmental course. May not be re- peated for credit. Individual contract required. Letter grading.

198A-198B-198C. Honors Research in Chicana and Chicano Studies. (2 each) Tutorial, one hour. Limited to junior/senior honors program students. May be repeated for credit. Individual contract re- quired. Letter grading. 198A. Thesis Conceptualization. Requisites: courses 10A, 10B, and 89 or 189HC. Conceptualization of methods and topic for a master’s project in Winter Quarter under direct supervision of faculty member. Preliminary data collection on topic and pro- duction of proposal for thesis required. 198B. Anno- tation. Supervisor—Biography/Literature Review. May be repeated for credit. Course 198A. Development of research skills in Winter Quarter to produce extensive annotated bibliography or literature review on thesis topic. Weekly meetings with faculty member to discuss research and develop outline, argument, and structure of thesis. 198C. Writing and Revision. Requisite: course 198B. Writing, revision, and completion of departmental honors thesis in Spring Quarter to specification and satisfac- tion of thesis committee. Public presentation and de- fence of thesis required.

199. Directed Research or Senior Project in Chi- cana and Chicano Studies. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised indi- vidual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract re- quired. P/N or letter grading.

Graduate Courses

200. Theoretical Paradigms in Chicana and Chica- no Studies. (4) (Formerly numbered 211) Seminar, three hours. Limited to graduate students. Examina- tion 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, in- equality 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 as basis for social action research—Chicana/Chicano cultural studies, Chicana feminisms, queer studies, and critical legal studies. S/U or letter grading.


207. Racial Geographies. (4) Seminar, three hours. Interdisciplinary examination of spatial turn in social sciences and humanities. Drawing upon readings from geography, history, ethnic, and American studies, use of analytic of space to investigate questions of race in U.S. Focus on production of space, investigations of the racial formations, and anti-racism of race in U.S. Focus on production of space, stances of race to investigate questions of race in U.S. (4)

210. Queer of Color Genealogies. (4) Seminar, three hours. Reading about queer of color theories of queer of color communities through alternative signifiers, such as Indigenous, Santería, diasporic, and Aztlán aesthetics, focusing on Chicana/Chicano art culture, film, performance, and literature. Special focus on site of identity, history/memory, and creative production. S/U or letter grading.

215. Transnational Women's Organizing in Americas. (4) Lecture, four hours. Feminist theories of transnational organizing. Examination of gender and race in both centrality and marginalization and its impact on economic and political struggles encompassed in transnational power relations. Exploration of how questions of race and gender influence global economic and political actors and their communities. In time when people, capital, cultures, and technologies cross national borders with growing frequency, discussion of process of accelerated globalization and its implications of labor and migration, environmental degradation, questions of diaspora, sexuality, and cultural displacement, as well as growing global militarization. Problems and issues create different globalizations and political and social responses envisioned through transnational organizing. Concurrently scheduled with course CM147. Letter grading.

223. Aesthetics of Place in Chicana/Chicano Expressive Culture. (4) Seminar, three hours. Examination of several place-based aesthetic traditions, including Indigenous, Santería, diasporic, and Aztlán aesthetics, focusing on Chicana/Chicano art culture, film, performance, and literature. Special focus on site of identity, history/memory, and creative production. S/U or letter grading.

252. Cultural Representations in Americas. (4) Seminar, three hours. Selection of Chicana and Chicano literature and films, with emphasis on gender issues, diasporas, and global transformation. Use of aesthetic and formal analytical techniques and general conceptual frameworks—cultural studies, postcolonial studies, neoliberalism, intersectionality, and femininity. Study of these cultural productions through text and film as developing counter narratives among Latinas/Latinos. S/U or letter grading.

258. Laughter, Political Humor, and Social Control. (4) Seminar, four hours. Seminar, three hours. Discussion of foundational theoretical concepts such as Anzaldúa’s foundational concepts of mundu zuro, nepantla, mestiza consciousness, and conocimiento, and Pérez’s xito y lengua and decol- ltronomical binary; Sandovál’s methodology of oppressed, differential consciousness, and hermeneutics of love; and Arzón’s postcolonial queer mestiza. How to apply several of these theories in decolonization of one revered cultural icon, la Virgen de Guadalupe. S/U or letter grading.


259. Multicultural Approaches to Teaching English. (4) Seminar, four hours. Concurrently scheduled with course M141. Letter grading.


The Civic Engagement minor is designed to provide students with a core analytical, experiential, and theoretical framework for understanding issues of community building, governance, and the use of civic resources. It examines the connections between individual success and societal structures, while exploring traditions of service and the history of civic movements. The minor can be paired with any major as an applied and active way of putting disciplinary tools to use and is intended for highly motivated students of any ideological perspective who are committed to education among a broader community of learners.

Students complete a core curriculum, elective courses, an internship, and a capstone project involving research on a civic issue. Three internship programs are available: local Los Angeles area internships, state internships through the University of California Center Sacramento (UCCS) program, and national internships through the Center for American Politics and Public Policy (CAPPP) program in Washington, DC.

Undergraduate Study

Civic Engagement Minor

The Civic Engagement minor integrates local, state, and national internships 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.

Students who complete the minor with a grade-point average of at least 3.5 in their minor coursework, an overall GPA of 3.5, and...
Civic Engagement 198 for their capstone experience qualify for graduation with College Honors.


Required Upper-Division Internship Courses (12 to 14 units): Students must select from either local, state, or national internship locations as follows:

Local Los Angeles area internships span three consecutive terms at the same internship location. Students enroll in three consecutive terms of Civic Engagement 195CE. Placements are selected in consultation with the Center for Community Learning minor coordinator and are based on both student interest and faculty recommendations.

State internships span one term through participation in the University of California Center Sacramento (UCCS) program during fall, winter, spring, or summer quarter. Students must enroll in a minimum of 14 units of upper-division courses to satisfy the internship requirement. Applications for the UCSU program are available on the UCSU website.

National internships span one term through participation in the Center for American Politics and Public Policy (CAPPP) program in Washington, DC. In the fall or spring quarter program, students enroll in History/Political Science/Sociology M191DC and M195DC; in the winter quarter program, students enroll in History/Political Science/Sociology M194DC and M195DC plus one 4-unit elective course. Students must enroll in a minimum of 12 units of upper-division courses to satisfy the internship requirement. Applications for the CAPPP program are available on the CAPPP website.

Required upper-division Capstone Courses (6 units): Civic Engagement 194 with a grade of B or better; one course from Civic Engagement 198 or 199. Prior to enrolling in course 198 or 199, students must complete Civic Engagement 194 and all other requirements for the minor, with the exception of the three-term local internship which may be completed concurrently with the capstone course.

The capstone experience for the minor requires an integrative final paper or project that incorporates the required curriculum and elective courses. Students must complete at least 3.0 units of capstone experience under the guidance of a faculty sponsor and enroll in either Civic Engagement 198 or 199 in the final term of the minor. The faculty sponsor approves the proposed readings as well as the length and scope of the final paper or project based on guidelines developed by the faculty committee for the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 3.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Civic Engagement Lower-Division Courses**

10. Introduction to Engaged Scholarship. (2) Seminar, two hours. Limited to students participating in preapproved UCLA civic engagement programs. Introduction to history, research, and philosophy of general University/community partnerships, as well as specific opportunities for active engagement by underrepresented students at UCLA. Offered in summer only. P/NP grading.

18. Bruin Leaders: Model for Social Change. (1) Lecture, two hours; fieldwork, one hour. Introduction to leadership development and civic engagement through community service. Based on nonhierarchical mode of leadership developed by UCLA Graduate School of Education and Information Studies. Topics include diversity issues, organizational skills and team-building development, and personal growth and community service goals. Participation in first-week orientation seminar mandatory. Acceptable placement in local, state, or national internship for students with academic context. Acceptable placements include corporate, nonprofit, and governmental organizations that meet criteria for undergraduate internships as established by Center for Community Learning. Individual contract with supervising faculty member 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. Individual research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

99CE. Introduction to Community-Based Internships. (2) Tutorial, one hour; fieldwork, four hours. Introduction to community-based work for third-term freshman/sophomore students who have not completed 90 units. Platform for preplanned, organized, structured, and supervised off-campus experiences with academic context. Acceptable placements include corporate, nonprofit, and governmental organizations that meet criteria for undergraduate internships as established by Center for Community Learning. Individual contract with supervising faculty member required. P/NP or letter grading.

Upper-Division Courses

100SL. Perspectives on Civic Engagement. (4) Seminar, three hours. Introduction to civic engagement research and practice open to students who have been accepted in Civic Engagement minor, as well as those from all majors who are interested in theories and concepts of civic engagement within undergraduate education. Letter grading.

102. Reflections on Alternative Spring Break. (2) Seminar, two hours. Limited to students who have participated in USAC Community Service Commission Alternative Spring Break immediately prior to Spring Quarter. Discussion of role of higher education initiatives in civic identity formation, with specific attention to reflection on Alternative Spring Break experiences. P/NP or letter grading.

105SL. Client-Based Program Evaluation and Research. (4) Seminar, three hours; fieldwork, 10 hours. Limited to juniors/seniors. Service learning course for undergraduate students and community partners through which students learn 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) Lecture, three hours; fieldwork, eight hours. Limited to students who are participating members of Jumpstart AmeriCorps literacy program. Seminar on early childhood development and civic engagement. Overview of child development theory as well as examination of policies and systems that impact practice of preschool education. Discussion of history and future of civic engagement movement designed to engage diverse groups of committed stakeholders in developing community-based programs.

M110SL. Community-Based Studies of Popular Literature. (6) (Same as English M115SL) Lecture, four hours; discussion, one hour (when scheduled); fieldwork, two hours. Enforced requisite: English Composition. 3. Service learning course on contemporary communities of readers and writers and formation of

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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 includes meaningful work with local nonprofit organizations selected in advance by instructor. May be repeated for credit with topic change. P/NP or letter grading.

M115. Citizenship and Public Service. (4) (Same as Political Science M115SL.) Lecture, three or four hours; discussion. Three hours (when scheduled). Recommended requisite: Political Science 10. Designed for juniors/seniors. Study of ways in which political thinkers have conceived of ideas of citizenship and public service as they have changed in the past, present, and future, and frameworks for thinking about citizenship in era of markets and globalization. P/NP or letter grading.

M122. Philanthropy as Civic Engagement. (5) (Formerly numbered 122.) (Same as Honors Collegium M123.) Seminar, three hours. Limited to juniors/seniors; application required. Study of history, philosophy, and practice of philanthropy. Practical experience in setting priorities and making philanthropic investments in Los Angeles-based nonprofit organizations. Letter grading.

133SL. Topics in Community-Based Research: Theory and Practice. (5) Seminar; three hours; fieldwork, two hours. Directed seminar course that explores topics related to theory and practice of community-based research. Service learning component includes meaningful work with community partners selected in advance by instructor and Center for Community Learning. May be repeated for credit with topic or instructor change. Letter grading.

M134SL. Engaging Immigrants and Their Families. (5) Seminar; three hours; community learning. Engaging community learning partnerships focus on organizations addressing immigration concerns. Letter grading.

145. Conflict, Power, Inequality, and Change. (4) Lecture, four hours. Broad historic trend of systems in conflict: shifting political ideals, colonialism, including capitalism, urbanism, liberalism, and neoliberalism. Examination of modalities and theories of conflict and transformation, with emphasis on three primary forms of systems conflict: structural conflicts, wars, and social relations. Study of resource scarcity through two specific dimensions: how it is leveraged to meet political ends, and how it can be harnessed for conflict intervention, resolution, transformation, and prevention. P/NP or letter grading.

150. Social Innovation Theory and Application. (4) 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 as 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.

152. Exploring Social Change: Critical Analysis through Lens of Chaos and Complexity. (4) Lecture, four hours. Exploration of theories driving social change and how visions and agendas get organized toward common efforts. Analysis of organizing frameworks through systems for social, economic, and political change. Introduction to praxis, defined by Paulo Freire in Pedagogy of the Oppressed as “reflection and action directed at the structures to be transformed.” P/NP or letter grading.

163SL. Civic Engagement and Public Use of Knowledge: Special Topics. (5) Seminar, three hours; fieldwork, three hours. Limited to juniors/seniors. Service learning course that examines variable topics 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.

165SL. Storytelling for Social Justice: Research and Writing with Nonprofit Organizations. (5) Seminar, three hours; fieldwork, two hours. Limited to juniors/seniors. Exploration of how nonprofit organizations use storytelling strategies to advance social justice. Opportunities to apply research and writing skills to service learning component online. Students collaborate with nonprofit organizations to complete research and communication projects. Special focus on how storytelling can empower individuals and communities to advocate and advance equity in diverse urban centers like Los Angeles. Letter grading.

M170SL. Food Studies and Food Justice in Los Angeles. (4) (Formerly numbered 170SL.) (Same as Food Studies 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. Students identify specific dimensions: how it is leveraged to meet political ends by residents of lower-income communities, Reading of research from multiple disciplines, including but not limited to public health, environmental justice, and public policy. Service learning component includes meaningful work with off-campus community partners selected in advance by instructor for Community Learning. Letter grading.

M175SL. Addressing Social Determinants in Racial/Ethnic Minorities to Reduce and Prevent Health Disparities. (4) (Formerly numbered 175SL.) (Same as Psychology M178SL.) 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. Currently in racial and ethnic minority communities, health status of individuals can be traced to the long history of racism, environmental pollutants and toxins, scarcity of supermarkets or stores with fresh produce and nutritional food, 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 care in ways of changing risk environments. Designed to identify and provide opportunities to understand how to address social determinants related to negative health outcomes in racial/ethnic minority neighborhoods and communities and to experience how to use social determinants literature in service to community- collaborative activities with community organizations. P/NP or letter grading.

180. Access to Justice: Hope and Reality. (4) Seminar, three hours. Limited to UCLA students who are members of JusticeCorps through AmeriCorps. JusticeCorps was established as innovative approach to solving one pressing issue faced by courts around country today: providing equal access to justice. Examination of promise of justice system in America to provide meaningful access to courts for all who seek it. What preempts underlie structure of U.S. legal system? Exploration of sociopolitical context for current legal system, including origins and current status of legal services and self-help movements, including role of JusticeCorps. These strategies designed to make promise of equal justice a reality or have they contravened, or intentionally, resulted in two-tiered legal system—one for those with means and another for those without? P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. May be repeated for credit or bring about change in democratic society. Must be repeated for three consecutive terms to fulfill minor requirements. Individual contract with supervising faculty member required. Letter grading.

190. Directed Research or Senior Project in Civic Engagement. (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.

190CE. Community and Corporate Internships in Civic Engagement. (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.

194. Capstone Research Seminar. (4) 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 capstone research project. Letter grading.

194A. Astin Civic Engagement Research Seminar. (4) Seminar, three hours. Limited to students in Astin civic engagement spring training program. Integration of off-campus work with academic theories and concepts within field of civic engagement. Students report on their internship experiences and analyze relationship between their internship and issues of policy, ethics, systemic responses to community needs, or personal and intellectual transformations. Students identify one faculty mentor and develop proposal for civic engagement research project. Letter grading.

195. Community or Corporate Internships in Civic Engagement. (4) Tutorial, one hour; fieldwork, eight 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 meaningful work at internship site. Students expected to learn ways in which individuals and groups can organize to solve problems, analyze issues, or bring about change in democratic society. Must be repeated for three consecutive terms to fulfill minor requirements. Individual contract with supervising faculty member required. Letter grading.

195CE. Community and Corporate Internships in Civic Engagement. (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.

198. Honors Research in Civic Engagement. (4) Tutorial, one hour. Required capstone course to Civic Engagement minor for students pursuing College Honors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Civic Engagement. (4) Tutorial, to be arranged. Required capstone course to Civic Engagement 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.

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.
Civil and Environmental Engineering

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Scope and Objectives

The Department of Civil and Environmental Engineering programs at UCLA include civil engineering materials, earthquake engineering, environmental engineering, geotechnical engineering, hydrology and water resources engineering, structural engineering, and structural mechanics.

The undergraduate curriculum leads to a BS in Civil Engineering, a broad-based education in environmental engineering, geotechnical engineering, hydrology, and water resources engineering, and structural engineering. This program is an excellent foundation for entry into professional practice in civil engineering or for more advanced study. The department also offers the undergraduate Environmental Engineering minor.

At the graduate level, MS and PhD degree programs are offered in the areas of civil engineering materials, environmental engineering, geotechnical engineering, hydrology and water resources engineering, and structures (including structural/earthquake engineering and structural mechanics). In these areas, research is being done on a variety of problems ranging from basic physics and mechanics problems to critical problems in earthquake engineering and in the development of new technologies for pollution control and water distribution and treatment.

Undergraduate Study

The civil engineering program is accredited by the Engineering Accreditation Commission of ABET.

The Civil Engineering major is a designated capstone major. In each of the major field design courses, students work individually and in groups to complete design projects. To do so, they draw on their prior coursework, research the needed materials and possible approaches to creating their device or system, and come up with creative solutions. This process enables them to integrate many of the principles they have learned previously and apply them to real systems. In completing their projects, students are also expected to demonstrate effective oral and written communication skills, as well as their ability to work productively with others as part of a team.

Civil Engineering BS Capstone Major

Learning Outcomes

The Civil Engineering major has the following learning outcomes:

- Understanding of, and ability to apply, basic mathematical and scientific concepts that underlie the field
- Ability to contribute meaningfully to design projects
- Critical thinking skills, problem-solving abilities, and familiarity with computational procedures essential to the field
- Ability to work productively as a member of a team
- Effective oral and written communication skills

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 1, M20 (or Computer Science 31); Mathematics 31A, 31B, 32A, 32B, 33A, 33B (or Mechanical and Aerospace Engineering 82); Physics 1A, 1B, 1C, 4AL; one natural science course selected from Civil and Environmental Engineering 58SL, Earth, Planetary, and Space Sciences 3, 15, 16, 17, 20; Environment 12, Life Sciences 1, 2, 7A, Microbiology, Immunology, and Molecular Genetics 5, 6, or Neuroscience 10.

The Major

Required: Chemical Engineering 102A or Mechanical and Aerospace Engineering 105A, Civil and Environmental Engineering 91, 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).

Hydrology and Water Resources Engineering: Civil and Environmental Engineering 157A; laboratory course: 157L; design courses: 151, 152 (capstone).

Structural Engineering and Mechanics: Civil and Environmental Engineering 125, 130, 135B, M135C, C137, 142; laboratory courses: 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 153 and five courses from 154, 155, 156A, M165, M166, Chemical Engineering C118, Environment 159, 166, Environmental Health Sciences C125, C164.

A minimum of 20 units applied toward the minor requirements must 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 current intellectual importance, taught by faculty mentors. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). This course may be taken only once. Undergraduate students may not enroll in this seminar. This seminar is applicable toward the major or minor within departmental approval; consult with the undergraduate counseling office.

85SL. Climate Change, Water Quality, and Ecosystem Functioning. (5) Lecture, four hours; service learning, two hours; outside study, nine hours. Science related to climate change, water quality, and ecosystem health. Topics include carbon and nutrient cycling, hydrology, structure and services, biodiversity, basic aquatic chemistry, and impacts of climate change on ecosystem functioning and water quality. Participation in series of science education projects to elementary or middle school audience. Letter grading.

91. Statics. (4) Formerly numbered 101.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 108, Physics 1A, 1B, 1C. Newtonian mechanics, vector representation, and resultant forces and moments. Free-body diagrams and equilibrium, internal loads and equilibrium in trusses, frames, arches, and other systems, distributed forces, determinate and indeterminate force systems, shear and moment diagrams, and axial force diagrams. Letter grading.

97. Variable Topics in Civil and Environmental Engineering. (2 to 4) Seminar, two hours. Current topics and research methods in civil and environmental engineering. May be repeated for credit. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research under upper-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Students must complete three units per quarter. This course may be taken only once. Undergraduate students may not enroll in this seminar. This seminar is applicable toward the major or minor within departmental approval; consult with the undergraduate counseling office.

Upper-Division Courses
102. Dynamics of Particles and Bodies. (2) Lecture, two hours; discussion, two hours; outside study, two hours. Requisites: course 91, Physics 1B. Introduction to fundamentals of dynamics of single particles, systems, and particle systems. Topics include kinematics and kinetics of particles, work and energy, impulse and momentum, multiparticle systems, kinematics and kinetics of rigid bodies in two- and three-dimensional motions. Letter grading.

103. Applied Numerical Computing and Modeling in Civil and Environmental Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course M20 (or Computer Science 31), Mathematics 31A, 32B. Finite difference methods for solving partial differential equations. Programming. Examples and exercises from engineering, with focus on how these concepts are used in experimental design and sampling, data analysis and reliability analysis, and project design under uncertainty. Topics include finite-difference, stability concepts, random variables and analytical probability distributions, functions of random variables, estimating parameters from observational data, regression hypothesis testing, and Bayesian concepts. Letter grading.

120. Principles of Soil Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 108, Soil as foundation for structures and as material of construction. Soil formation, classification, physical and mechanical properties, soil compaction, earth pressures, consolidation, and shear strength. Letter grading.

121. Design of Foundations and Earth Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 120. Design methods for foundations and earth structures. Site investigation, including evaluation of soil properties for design. Design of footings and piles, 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. Requisites: course 121. Analysis and design of earth dams, including seepage, piping, and slope stability analyses. Case study history involving landslides, settlement, and explosions. Design and repair methodologies for those problems. Within context of above technical problems, emphasis on preparation of engineering documents such as proposals, work acknowledge-ment, figures, plans, and reports. Letter grading.

125. Fundamentals of Earthquake Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 123. Review of engineering seismology, including plate tectonics, faults, wave propagation, and earthquake strong ground motion. Development and selection of design ground motions using both probabilistic and hazard analysis methods. Overview of seismic design regulation and California PE examination’s seismic component. Code-based seismic design for new buildings using current International

128L. Soil Mechanics Laboratory. (4) Lecture, one hour; laboratory, six hours; outside study, five hours. Requisite or corequisite: course 120. Laboratory experiment be performed by students to obtain soil parameters required for assigned design problems. Soil classification, grain size distribution, Atterberg limits, specific gravity, compaction, expansion index, consolidation, stress-strain determinations. Design problems, laboratory report writing. Letter grading.


130. Elementary Structural Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 108. Analysis of stress and strain, phenomenological material behavior, extension, bending, and shear. Determination of stress resultants, deflections in beams with general cross-sections, shear center, deflection of beams, torsion of bars, warping, column instability and failure. Letter grading.

135A. Elementary Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses M20 (or Computer Science 31), 108. Introduction to structural analysis; classification of structural elements; analysis of statically determinate trusses, beams, and frames; deflections in elementary structures; virtual work; analysis of indeterminate structures using force method; introduction to displacement method and energy theorems. Letter grading.

135B. Intermediate Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Analysis of truss and frame structures using matrix methods; matrix force methods; matrix displacement method; analysis concepts based on theorem of virtual work; moment distribution. Letter grading.

M135C. Introduction to Finite Element Methods. (4) (Cross listed: Mechanical and Aerospace Engineering 161B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 130 or Mechanical and Aerospace Engineering 156A or 166A. Introduction to fundamental 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.


C137. Elementary Structural Dynamics. (4) (Formerly 137) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135B. Basic structural dynamics course for civil engineering students. Elastic free and forced vibrations of single degree of freedom systems, introduction to response history and response spectrum analysis approaches for single and multidegree of freedom systems. Axial, bending, and torsional vibration of beams. Concurrently scheduled with course 232L. Letter grading.

137L. Structural Dynamics Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisite or corequisite: course 137. Calibration of instrumentation for dynamic measurements. Determination of natural frequencies and damping factors from free vibrations. Determination of natural frequencies, mode shapes, and damping factors from forced vibrations. Dynamic similarity. Letter grading.

140L. Structural Components and Systems Testing Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours; requisites: courses 135A, 142. Comparison of experimental results with analytical results and code requirements to assess accuracy and precision of procedures, used in structural design. Tests include quasi-static tests of structural elements (beams, columns) and systems (slab-column, beam-column) 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.

141. Steel Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite or corequisite: course 137. Materials and fabrication of steel. Tension and compression members. Design of beams and columns. Simple steel frame design. Introduction to tension and compression members. Design of columns. Letter grading.


142L. Reinforced Concrete Structural Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: courses 135B, 142, 144. Limited enrollment. Design considerations used for reinforced concrete beams, columns, slabs, and joints evaluated using analysis and experiments. Links between theory, building codes, and experimental results. Students demonstrate accuracies and limitations of calculation procedures used in design of reinforced concrete structures. Emphasis on practical analysis and design. Practical writing 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 determinate 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 program. Discussion of external post-tensioning, one- and two-way slab systems. Letter grading.

144. Structural Systems Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 141 or 142. Design course for civil engineering students, with focus on design and performance of complete building structural systems. International Building Code (IBC) and ASCE 7 load criteria, dead, live, wind, and earthquake loads. Design of reinforced concrete and structural steel buildings. Computer modeling, analysis, and performance assessment of building systems. Letter grading.


150L. Introduction to Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course M20 (or Computer Science 31), Mechanical and Aerospace Engineering 103. Study of hydrologic cycle and relevant atmospheric processes, water and energy balance, radiation, precipitation formation, infiltration, evaporation, vegetation transpiration, groundwater flow, storm runoff, and flood processes. Letter grading.

151. Introduction to Water Resources Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 150, Mechanical and Aerospace Engineering 103. Recommended courses 103, 110. Principles of hydraulics, flow of water in open channels and pressure conduits, reservoirs and dams, hydraulic machinery, hydrosystemic power. Introduction to system analysis and design applied to water resources engineering. Letter grading.

152. Hydraulic and Hydrologic Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 150, 151. Analysis of channels in surface water drainage systems, including stormwater management systems, potable and recycled water distribution systems, wastewater collection systems, and constructed wetlands. Emphasis on practical analysis and design. Reading/interpreting professional drawings and documents, environmental impact reports, permitting, agency coordination, and engineering ethics. Project-based course includes analysis of hydraulics and modeling of water resources systems and preparation of written engineering reports. Letter grading.

153. Introduction to Environmental Engineering Science. (4) Lecture, four hours; discussion, one hour (may be taken concurrently); Chemistry 20A, 20B. Basic laboratory techniques in analytical chemistry related to water and wastewater analysis. Selected experiments include gravimetric analysis, spectrophotometry, redox systems, pH and electrical conductivity, atomic absorption spectrophotometry, biodegradation, and bioaccumulation. Practical writing skills for written and oral presentations. Letter grading.

154. Chemical Fate and Transport in Aquatic Environments. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 150, 151. Emphasis on principles governing design of engineered systems for water and wastewater treatment systems. Field trip. Letter grading.

155. Unit Operations and Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 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, two hours. Requisite: course 150, 155. (May be taken concurrently), Chemistry 20A, 20B. Basic laboratory techniques in analytical chemistry related to water and wastewater analysis. Selected experiments include gravimetric analysis, spectrophotometry, redox systems, pH and electrical conductivity. Concepts to be applied to analysis of real water samples in course 156B. Letter grading.

158B. Environmental Chemistry and Processes Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: Chemistry 20A, 20B. Characterization and analysis of natural and synthetic inorganic and organic constituents. Selected experiments include analysis of solids, nitrogen species, oxygen demand, and chlorine residual, that are used in operation experiments that include: aeration, gas stripping, coagulation/flocculation, and membrane separation. Letter grading.
157A. Hydrologic Modeling. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 150 or 151. Introduction to hydrologic modeling. Topics selected from areas of (1) open-channel flow, including one-dimensional steady flow and unsteady flow; (2) pipe flow and water distribution systems; (3) rainfall-runoff modeling, and (4) groundwater flow and 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. Water quality standards and regulations, overview of water treatment plants, design of unit operations, predesign of water treatment plants, hydraulics of plants, process control, and operations. Letter grading.

157C. Design of Wastewater Treatment Plants. (4) Lecture, four hours; outside study, eight hours. Requisite: course 155. Process design of wastewater treatment plants, including primary and secondary treatment, detailed design review of existing plants, process control, and economics. Letter grading.

157L. Hydrologic Analysis. (4) Lecture, two hours; laboratory, five hours; outside study, five hours. Requisite: course 150. Collection, compilation, and interpretation of materials related to 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 hydrology and water resources. Letter grading.


M165. Environmental Nanotechnology: Implications and Applications. (4) (Same as Engineering M103.) 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 potential application of nanotechnology to environmental protection. Technical contents include three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, reaction, and fate of nanoscale material in natural environmental systems, 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: microbiology and its potential, growth of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, probing of microbes, health microbiology. Letter grading.

M166L. Environmental Microbiology and Biotechnology Laboratory. (1) (Same as Environmental Health Sciences M166L.) Lecture, four hours; tutorial, four hours; laboratory, two hours. Corequisite: course M166. General laboratory practice within environmental microbiology, sampling of environmental samples, classical and molecular techniques for isolation of microbes from environmental samples, techniques for determination of microbial activity in environmental samples, laboratory setups for studying environmental processes. Letter grading.

170. Introduction to Construction Management. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to construction engineering theory, management, and techniques. Implementation of exercises from academic texts and real project case studies. Discussion of building systems, building components, project delivery methods, document control, critical path method scheduling, labor management, quality management, estimating, sustainability, 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 pavements, streets, air, and water. Capacity considerations, including planning, design, and operations. Components of roadway design, including horizontal and vertical alignment, cross sections, and pavements. Letter grading.

181. Traffic Engineering Systems: Operations and Control. (4) Lecture, four hours; fieldwork/laboratory, two hours; outside study, six hours. Designed for juniors/senior Civil Engineering students and Public Affairs graduate students. Applications of traffic safety improvements, highway capacity analyses, signal design and timing. Intelligent Transportation Systems concepts, and traffic interface with railroads, urban transit, bicyclists, and pedestrians. Students analyze local roadway and present recommended improvements to public agency officials. Letter grading.


188. Special Courses in Civil and Environmental Engineering. (4) Lecture, to be arranged; outside study, eight hours. May be repeated for credit. Letter grading.


203. Slope Stability and Earth Retention Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 120, 121, 220. Basic concepts of stability of embankments, including shear strength, design charts, limit equilibrium analysis, seepage analysis, staged construction, and rapid drawdown. Theory of earth pressures behind retaining structures, with special application to design of retaining walls, sheet piles, mechanically stabilized earth, soil nails, and anchored and braced excavation. Letter grading.

204. Advanced Cyclic and Monotonic Soil Behavior. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. In-depth study of soil behavior under cyclic and monotonic loads. Relationships between stress, strain, pore water pressure, and volume change in range of very small and large strains. Concept of localized static and dynamic cyclic degradation and liquefaction of saturated soils. Cyclic settlement of partially saturated and dry soils. Concept of volumetric cyclic threshold shear strain. Factors affecting shear modulus and damping during cyclic loading. Postcyclic behavior under monotonic loads. Critical review of laboratory, field, and modeling testing techniques. Letter grading.
225. Geotechnical Earthquake Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 220, 245 (may be taken concurrently). Analysis of earthquake-induced ground failure, including soil liquefaction, cyclic softening of clays, seismic compression, surface fault rupture, and seismic slope stability. Ground response effects on earthquake ground motions. Soil-structure interaction, including inertial and kinematic interaction and foundation deformations under seismic loading. Letter grading.

226. Geoenvironmental Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Introduction to geoengineering. Topics involve application of geotechnical principles to environmental problems. Topics include 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 issues such as instability, bifurcation, nonlinearity, and nonuniqueness of solutions. Letter grading.

228. Engineering Geology: Geologic Principles for Engineers. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Engineering geology involves interpretation, evaluation, analysis, and application of geologic information and data to civil works. Topics include geologic characterization and classification of soils 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 these processes, including weathering 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: Mechanic and Aerospace Engineering 156A or 166A. Linear elastostatics. Cartesian tensors; infinitesimal strain tensors; strain energy; equilibrium of bodies; equilibrium of bodies in motion; Navier's equations; linear constitutive relations; plane strain and plane stress; boundary value problems in linear elasticity; moment methods for beams and plates. 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, nonlinear and linear strain tensors, strain displacement relations; balance laws; Cauchy and Piola stress, stress and strain relations; introduction to nonlinear elasticity; stored energy; constitutive relations, elasticity, hyperelasticity, thermoelasticity; linearization of field equations; solution of selected problems. Letter grading.


232. Theory of Plates and Shells. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130. Small and large deformation theories of thin plates; 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. Requisites: 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, effects of approximations, introduction to finite element analysis. Letter grading.

235B. Finite Element Analysis of Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 130, 235A. Direct energy formulations for deformable systems; solution methods for linear equations; analysis of structures; systems; elements; introduction to variational calculus; discrete element displacement, force, and mixed methods for membrane, plate, shell structures; instability effects. Letter grading.

235C. Nonlinear Structural Analysis. (4) Lecture, four hours; outside study, eight hours. Requisite: course 235B. Classification of nonlinear effects; material nonlinearities; conservative, nonconservative material behavior; geometric nonlinearities, Lagrangian, 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. Elastic free and forced vibrations of single degree of freedom systems, introduction to response history and response spectrum analysis approaches for single and multidegree of freedom systems. Axial, bending, and torsional vibration of beams. Concurrently scheduled with course C137. Letter grading.


243A. Behavior and Design of Reinforced Concrete Structural Elements. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 120. Advanced topics on design of reinforced concrete structures, including stress-strain relationships for plain and reinforced concrete, moment-curvature analysis of sections, and design for shear. Design of slender and low-rise walls, as well as design of beam-column joints. Introduction to displacement-based design and 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. Requisite: course 120. Advanced topics on design of reinforced concrete building to earthquake ground motions. Topics include use of elastic and inelastic response spectra, role of strength, stiffness, and ductility, and use of prescriptive versus performance-based design methodologies, and application of elastic and inelastic analyses techniques for new and existing construction. Letter grading.

244. Structural Reliability. (4) Lecture, four hours; discussion; outside study, six hours. Introduction to concepts and applications of structural reliability. Topics include computing first- and second-order estimates of soil capacity and performance of engineered systems, computing sensitivities of failure probabilities to assumed parameter values, measuring relative importance of random variables associated with system response, identifying relative advantages and disadvantages of various analytical reliability methods, using reliability tools to calibrate simplified building codes, and performing reliability calculations related to performance-based engineering. Letter grading.

245. Earthquake Ground Motion Characterization. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Corequisite: course C137 or 246. Earthquake ground motions: response, time, and Fourier spectra. Response of structures to ground motions due to earthquakes. Computational methods to evaluate structural response. Response analysis, including evaluation of contemporary design standards. Limitations due to idealizations. Letter grading.

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 isolated seismic sites and site effects, elastomeric bearings under compression and bending, buckling of bearings, sliding bearings, passive energy dissipation devices, response of structures with isolation and nonisolation. Introduction to probabilistic methods, static and dynamic analysis procedures, code provisions and design methods for seismically isolated structures. Letter grading.

248. Structural Response to Ground Motions. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses C137, 141, 142, 235A, Spectral analysis of ground motions: response, time, and Fourier spectra. Response of structures to ground motions due to earthquakes. Computational methods to evaluate structural response. Response analysis, including evaluation of contemporary design standards. Limitations due to idealizations. Letter grading.
254A. Environmental Aquatic Inorganic Chemistry. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20B, Mathematics 31A, 31B, Physics 1A, 1B. Equilibrium and kinetic descriptions of chemical behavior of metals and inorganic ions in natural fresh/marine surface waters and in natural aquatic environments. Processes include: acid-base chemistry and alkalinity (carbonate system), complexation, precipitation/dissolution, adsorption/desorption, reduction, and photochemistry. Letter grading.

255A. Physical and Chemical Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 155, 254A. Review of momentum and mass transfer, chemical reaction engineering, coagulation and flocculation, granular 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 155, 254A. Review of membrane separations to desalination, water reclamation, brine disposal, and ultrapure water systems. Discussion of reverse osmosis, ultrafiltration, electro dialysis, and ion exchange technologies from both practical and theoretical perspectives. Letter grading.

260. Advanced Topics in Hydrology and Water Resources. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 254A, 255A, 256A. In-depth treatment of selected topics related to biological treatment of waters and wastewaters, such as biodegradation of xenobiotics, pharmaceuticals, emerging pollutants, toxicity, and nutrients. Discussion of theoretical aspects, experimental observations, and recent literature. Application to important and emerging environmental problems. Letter grading.

261. Colloidial Phenomena in Aquatic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 254A, 255A, 256A. Examination of colloid stability, colloidal hydrodynamics, surface chemistry, adsorption of pollutants on colloidal surfaces, transport of colloids in porous media, coagulation, and precipitation. Examination of processes and factors that control colloid processes in aquatic environments. Letter grading.

261B. Advanced Biological Processes for Water and Wastewater Treatment. (4) Lecture, four hours; outside study, eight hours. Requisites: course 255B. In-depth treatment of selected topics related to biological treatment of waters and wastewaters, such as biodegradation of xenobiotics, pharmaceuticals, emerging pollutants, toxicity, and nutrients. Discussion of theoretical aspects, experimental observations, and recent literature. Application to important and emerging environmental problems. Letter grading.

262A. Introduction to Atmospheric Chemistry. (4) (Same as Atmospheric and Oceanic Sciences M203A.) Lecture, three hours. Requisite for undergraduate students: Chemistry 20B, Principles of chemical kinetics, thermoch emistry, spectroscopy, and photochemistry; chemical composition and history of Earth’s atmosphere; biogeochemical cycles of key atmospheric gases; exchange of energy between atmosphere, land, oceans, and stratosphere 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 pollution; diffusion from point, line, and area sources; pollution dispersion in urban complex; meteorological factors and air pollution potential; meteorological aspects of air pollution. S/U or letter grading.

263A. Physics of Environmental Transport. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Transport processes in surface water, groundwater, and atmosphere. Emphasis on exchanges across phase boundaries: sediment/water interface; air/water gas exchange; particles, droplets, and aerosols; small-scale environmental changes; effect of reactions on transport; linkages between physical, chemical, and biological processes. Letter grading.

263B. Advanced Topics in Transport in Environmental Media. (4) Lecture, four hours; outside study, eight hours. Requisites: course 263A. In-depth treatment of selected topics involving transport phenomena at environmental interfaces between solid, fluid, and gas phases, such as aquatic sediments, porous aggregates, and vegetative canopies. Discussion of theoretical models and experimental observations. Application to important environmental engineering problems. Letter grading.

266. Environmental Biotechnology. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 153, 254A. Environmental biotechnology—concept and potential, biotechnology of pollution control, bioremediation, wastewater treatment, environmental consulting industry to gain better understanding of governing environmental principles pertaining to management and transformation of contaminants. Types of modeling include speciation, mineral solubility, surface complexes, reaction path, inverse mass balance, and reactive transport modeling. Case studies include acid mine drainage, nuclear waste disposal, bioavailability and risk assessment, mining waste, deep well injection, landfill leachate, and microbial respiration. Research/modeling project required. Letter grading.

C282. Rigid and Flexible Pavement Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Correlation, analysis, and metrification 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., asphaltic concrete) and their specific strengths and weaknesses in paving applications. Unification and correlation of different variables that influence pavement performance and highlight their relevance in pavement design. Concurrently scheduled with course C182. Letter grading.

296. Advanced Topics in Civil Engineering. (2 to 4) Seminar, to be arranged. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate civil engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or teaching apprentice. Appointment and appointment and appointment and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours. Preparation as teaching assistant in Civil and Environmental Engineering Department. Seminar on communication of civil engineering principles, concepts, and methods; teaching
assistant preparation, organization, and presentation of material, including use of visual aids; grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate civil engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate civil engineering students. Preparation for oral qualifying examination, including preliminary research for MS candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

**Classics**

**College of Letters and Science**

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**Classics**
310-825-4171

Kathryn A. Morgan, PhD, Chair

**Professors**

David L. Blank, PhD
Kathryn A. Morgan, PhD
Sarah P. Morris, PhD (Steinmetz Professor of Classical Archaeology and Material Culture)
John K. Papadopoulos, PhD
Alex C. Purves, PhD
Amy E. Richlin, PhD
Giulia Sissa, PhD
Brent H. Vine, PhD (A. Richard Diebold, Jr., Endowed Professor of Indo-European Studies)

**Professors Emeriti**

Ann L.T. Bergren, PhD
Sander M. Goldberg, PhD
Michael W. Haslam, PhD
Steven Lattimore, PhD
Philip Levine, PhD
Jaan Puhvel, PhD

**Associate Professors**

Robert A. Gurval, PhD
Chris J. Johanson, PhD

**Assistant Professors**

Bryant Kirkland, PhD
Francesca K. Martelli, DPhil
Lydia M. Spielberg, PhD

**Adjunct Associate Professor**

Catherine Atherton, PhD

**Adjunct Assistant Professor**

Adriana M. Vazquez, PhD

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**Scope and Objectives**

The civilizations of ancient Greece and Rome are the focus of research and teaching in the Department of Classics. These areas of study are important in their own right and for their contributions to the political, cultural, intellectual, and artistic development of the Western world. To this end, the department offers a wide variety of interdisciplinary courses in classical civilization (multiple-listed in the Art History, Philosophy, and Political Science Departments), as well as elementary and advanced courses in ancient Greek and Latin language, literature, and linguistics. Classical civilization courses include such topics as Greek and Latin literature in translation (genres of epic, comedy, tragedy, biography), classical mythology, religion, law, gender and sexuality, politics, philosophy, art and archaeology, and the reception of the ancient world in modern cultures (cinema and classics).

The department offers Bachelor of Arts degrees in Classical Civilization, in Greek, in Latin, and in Greek and Latin and the PhD degree in Classics. Students can earn Master of Arts degrees in Classics (Greek and Latin), in Greek, or in Latin only after they have been admitted to the PhD program.

**Undergraduate Study**

Students considering a major in the department should consult with the adviser as soon as possible in their UCLA career, but in no case later than the point at which they are about to take upper-division courses.

The majors offered in the Classics Department are designated capstone majors. Undergraduate students take a capstone seminar in which they use the skills and expertise acquired in earlier coursework to research, analyze, and complete a written paper or project. They identify and analyze ancient classical documents, material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Note: Students in the Greek, Latin, and Greek and Latin majors are permitted to take Greek 200A, 200B, 200C and Latin 200A, 200B, 200C with consent of the instructor.

**Classical Civilization BA Capstone Major**

The civilizations of ancient Greece and Rome have made important contributions to the political, social, artistic, and intellectual development of the Western world. The purpose of the Classical Civilization major is to provide students with a formal and balanced introduction to the historical and cultural experiences of the ancient Greeks and Romans. The program of study is structured, yet not rigid. Lower-division survey courses and requirements in elementary language study, ancient history, and classical art establish an essential background of knowledge, while electives encourage individual and specialized interests. The program offers a broad range of courses in the fields of language, literature, history, mythology, religion, philosophy, art, and 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 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 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 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) Eight upper-division Greek and/or Latin courses (of which at least four must be in each language), including Greek 110 or Latin 110; Greek and/or 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).

Latin BA

Capstone Major

Learning Outcomes

The 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; Latin 1, 2, 3, 20, or equivalent. Latin 16 may be substituted for Latin 1, 2, 3.

Transfer Students

Transfer applicants to the 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 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 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...
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 (CPhil), 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 age of Homer to Roman conquest. 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.

20. 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.

30. Classical Mythology. (5) Lecture, three hours: discussion, one hour. Introduction to myths and legends of ancient Greece and/or Rome, role of those stories in their societies, and modern approaches to studying them. P/NP or letter grading.

40W. Reading Greek Literature: Writing-Intensive. (5) Lecture, two hours: discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Exploration in detail and from variety of critical perspectives of carefully selected literary texts characteristic of ancient Greece and significant in Western literary tradition. Satisfies Writing II requirement. Letter grading.

41W. Reading Roman Literature: Writing-Intensive. (5) Lecture, two hours: discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Exploration in detail and from variety of critical perspectives of carefully selected set of literary texts characteristic of ancient Rome and significant in Western literary tradition. Satisfies Writing II requirement. Letter grading.

42. Cinema and Ancient World. (5) Lecture/screenings, five hours: discussion, 75 minutes. 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, 75 minutes. 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. Examination of ways in which travel to strange or new worlds is presented through number of texts (and occasionally films) across different cultures and periods, with focus primarily on 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, rebuilding of home in fantastic territories, methods 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 seminar course 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 are interdisciplinary in nature (literature, arts, religion, politics, culture) and make connections between ancient and postclassical eras. Topics include rediscovery of Pompeii and Herculaneum; Roman religion and literature; pleasures of Greek or Roman body; and 18th-century British literature and reception of classics. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

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 field walks to museums and archaeological sites. Field trips outside Rome to Pompeii, Hadrian’s Villa, and ancient Ostia.
primary documents and ancient sources, including inscriptions and other forms of material culture. P/NP or letter grading.

162. 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 in later literatures. May be repeated once for credit with topic change. 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 20 or History 1A. Study of religion of ancient Greek. P/NP or letter grading.


M167. Magic in Ancient World, (4) (Same as Ancient Near East 167L.) 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, 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, 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. 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 conceptions were, how they changed over time, and difference it makes. Readings include both modern theories about sex and history as foundation for course and broad range of ancient texts in translation. P/NP or letter grading.


175. courses in North, Central, and South America. (4) Lecture, three hours. Introduction to topics in classical reception through investigation of influence of Greco-Roman poetry on poetry of Central and South America, both contemporary and beyond. From Horace to Vergil, poets of classical antiquity established robust tradition of epic with well-established literary tropes and nationalistic aims, cultural voice contributing to development of unified sense of national identity. Classical definition of epic as genre and sense of epic as vehicle for affirming and questioning national identity persisted well beyond antiquity. Investigation of one such area by examining epic traditions of Central and South America, (meditated through European models that preceded and helped shape them) and the 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. Requisite: Greek 3 or Latin 3. Linguistic analysis of Latin, including Indo-European background, etymology, pronunciation, alphabets, sociolinguistics (dialects, bilingualism), and applications to classical literature. P/NP or letter grading.

185. Origins and Nature of English Vocabulary. (5) Lecture, three hours. Origins and nature of English vocabulary, from Proto-Indo-European prehistory to current stage. Topics (e.g., Latin containing word English (including technical terminology), alphabet and English spelling, semantic change and word formation, vocabulary in literature and film. P/NP or letter grading.

189B. 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. May be repeated for maximum of 4 units. Individual honors contract required. Honors contract 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. Open only to work in 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, 40, 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 literature intended to provide students with opportunity for serious engagement with research in discipline under close faculty supervision. Readings, discussions, oral presentations, and final research project or paper. May be repeated for credit. Letter grading.


197. Individual Studies in Classics. (2 to 4) Tutorial, two hours. Limited to juniors/senior. Intensive individual 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 Classics. (2 to 4) Tutorial, two hours. Limited to juniors/senior. 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


2018. 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, and History M218.) Lecture, three hours; discussion; two hours. Introduction to history of Latin and vernacular manuscript book from 900 to 1500 to train students to make informed judgments with regard to place and date of origin, to provide training in accurate reading and transcription of later medieval scripts, and to 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.

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.


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 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) Off-campus field archaeology, 36 hours. Preparation: at least one classical archaeology course. Training in techniques of archaeological field work, including topographic and area survey, mapping and
recording artifacts, excavation and data analysis. Conducted in Mediterranean area. Concurrently scheduled with course C151E. 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 ancient 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.

266. Classical Astrolabe. (1) Lecture, three hours. May be repeated for credit with topic change. S/U grading.

267. Classical Poetics. (2) Seminar, two hours. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

270. 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.

275. Teaching Apprentice Practicum. (1 to 4) Seminar, three hours. Seminar/workshop in various pedagogical issues and strategies in preparation for teaching classical civilization, Greek, and/or Latin undergraduate courses. Readings and group discussions in topics related to teaching in field of classics. May not be applied toward MA or PhD course requirements. S/U grading.

279. 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 arrangement. S/U or letter grading.

288. Classical Theory and Practice. (1 to 4) Tutorial, to be arranged. May be repeated for credit with topic change. S/U grading.

295. Teaching Classics. (2) Seminar, three hours. Readings and group discussions in topics related to teaching in field of classics. May not be applied toward MA or PhD course requirements. S/U grading.

301. 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 arrangement. S/U or letter grading.

305. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

307. 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. Elementary Greek. (5) 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. Intermediate Modern Greek. (4 or 4) Lecture, three hours. Course 9A is enforced requisite to 9B, which is enforced requisite to 9C. Intermediate-level program in modern Greek language study from communicative and task-based approach. Continued development of student understanding and use of Greek syntax and morphology through oral and written activities, reading, and listening. Students master basic communication 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.

10. Study of Greek Prose. (1) Lecture, three to four hours. Requisite: course 100. Study in sight reading and grammatical analysis of Attic prose texts; writing Attic prose. P/NP or letter grading.

11. 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.


16. Xenophanes. (4) Seminar, three hours. Topics vary from year to year and include "Longinus," On Sublime; Marcus Aurelius, Meditations; Plutarch, later epic; epigram; epistolography Graeci. P/NP or letter grading.

17. Survey of Byzantine Literature. (4) Lecture, three hours. Requisite: course 100. Topics vary from year to year and include "Longinus," On Sublime; Marcus Aurelius, Meditations; Plutarch, later epic; epigram; epistolography Graeci. P/NP or letter grading.

18. Survey of Byzantine Literature. (4) Lecture, three hours. Requisite: course 100. Topics vary from year to year and include "Longinus," On Sublime; Marcus Aurelius, Meditations; Plutarch, later epic; epigram; epistolography Graeci. 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 or letter 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.

203. Homeric Hymns. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

204. Hornoric Hymns. (2 or 4 Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

205. Aeschylus. (2 or 4) Seminar, three hours. 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.


211A-211B. Herodotus. (2 or 4 each) Lecture, three hours. Course 211A is requisite to 211B. S/U (2-unit course) or letter (4-unit course) grading.

212A-212B. Thucydides. (2 or 4 each) Lecture, three hours. Course 212A is requisite to 212B. S/U (2-unit course) or letter (4-unit course) grading.

213. Greek Historiography. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

214. Demosthenes. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

215. Early Greek Orators. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

216. Menander. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

217A-217B. Greek Lyric Poetry. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. S/U (2-unit course) or letter (4-unit course) grading. 217A. Archaic Lyric. Study of lyric poetry of Archaic period, both choral and monologic, with eilegmac and iambic included. 217B. Pindar and Bacchylides. Study of choral odes of Pindar and Bacchylides, with special attention to conventions of epinician.

220. Greek Novel. (2 or 4) Seminar, three hours. Study of Greek romance and its place in Greek literature. Two texts (Chariton: Chareses and Callirhoe and Longus: Daphnis and Chloe) studied in some detail. S/U (2-unit course) or letter (4-unit course) grading.

221. Pre-Socratic Philosophers. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

222A-222B. Plato. (2 or 4 each) Lecture, three hours. Course 222A is requisite to 222B. S/U (2-unit course) or letter (4-unit course) grading.

223A-223B. Aristotle. (2 or 4 each) Lecture, three hours. Course 223A is requisite to 223B. S/U (2-unit course) or letter (4-unit course) grading.

224. Post-Aristotelian Philosophy. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

225. Sight Translation. (2 Seminar, three hours. Preparation: graduate-level knowledge of ancient Greek. Practice in translation of previously unseen texts from variety of authors and genres. Topics include peculiarities of style and vocabulary of distinct genres, literary versus scholarly translation, semantic properties of particular words and constructions. S/U grading.


241. Greek Epigraphy. (2 or 4 Seminar, three hours. Study of inscriptions in a variety of early ancient Greek linguistic and cultural history. S/U or letter grading.


243. Mycenaean Greek. (2 or 4 Seminar, three hours. Script, language, and grammar of Linear B inscriptions; early Mycenaean Greek linguistic and cultural history. S/U or letter grading.

244. Greek Papyrology. (2 or 4 Seminar, three hours. Preparation: reading knowledge of Greek. Introduction to Greek papyri, considered both as historical documents and as carriers of literature. S/U (2-unit course) or letter (4-unit course) grading.

245. Greek Paleography. (2 or 4 Seminar, three hours. Studies in development of book hand in Greek manuscripts earlier than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.

250. Topical Studies of Ancient Greece. (2 or 4 Lecture, three hours. Advanced study of some aspect of ancient Greek language, literature, and/or culture. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Study for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Latin

Lower-Division Courses

1. Elementary Latin. (5) Lecture, three hours; discussion, two hours. P/NP or letter grading.

1. Elementary Latin for Graduate Students. (No credit) Lecture, eight hours. Concurrently scheduled with course 1. P/NP or letter grading.

2. Elementary Latin. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 1. 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 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.


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 and consent of instructor. P/NP or letter grading.


109. Roman Satire. (4) Lecture, three hours. Requisite: course 100. Readings from author(s) of Roman satire, including Horace, Persius, and Juvenal, or related 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. Prequisite: course 100. P/N or letter grading.


114. Roman Epistolography: Cicero and Pliny. (4) Lecture, three hours. Prequisite: course 100. P/N or letter grading.


116. Roman Novel. (4) Lecture, three hours. Prequisite: course 100. Reading and discussion of either Petrarchus or Apuleius’ Metamorphoses and development of genre of prose novel in antiquity. May be repeated for credit in change in author and text. P/N or letter grading.

117. Sallust. (4) Lecture, three hours. Prequisite: course 100. P/N or letter grading.

118. Seneca. (4) Lecture, three hours. Prequisite: course 100. Selection of Seneca’s works read in Latin. P/N or letter grading.

119A. Readings in Roman Prose. (4) Lecture, three hours. Prequisite: course 100. Readings of selected Roman prose authors. 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/N or letter grading.

119B. Readings in Roman Poetry. (4) Lecture, three hours. Prequisite: course 100. Readings of selected Roman poetic authors. 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/N or letter grading.

120. Vulgate. (4) Lecture, three hours. Prequisite: course 3. Reading of selected chapters of St. Jerome’s translation of Bible, with emphasis on unclassical features of Latin. P/N or letter grading.

121. Patristic Texts. (4) Lecture, three hours. Prequisite: course 100. Reading and discussion of one or more Latin patristic texts (especially works of Ambrose, Augustine, and/or Jerome), with emphasis on specific features of patristic, as opposed to classical, Latin. P/N or letter grading.


189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. 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. Intensive individual study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible class exercises on subject matter required. May be repeated for credit. Individual contract required. P/N 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/N or letter grading.

Graduate Courses


201. Roman Epic Tradition. (2 or 4) Seminar, three hours. Close study (in translation of major work(s) other than Virgil, e.g., Ennius, Lucan, Valerius Flaccus, Statius, Silius Italicus), with attention to literary tradition of epic. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

202. Seminar: Catullus. (2 or 4) Seminar, three hours. Detailed consideration of entire Catullan corpus. S/U (2-unit course) or letter (4-unit course) grading.

203A. Elegiac Poetry. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

203B. Propertius. (2 or 4) Lecture, three hours. Course 203A is not requisite to 203B. S/U (2-unit course) or letter (4-unit course) grading.

204A-204B. Vergil’s Aeneid. (2 or 4 each) Lecture, three hours. Course 204A is requisite to 204B. S/U (2-unit course) or letter (4-unit course) grading.

205A. Seminar: Vergil’s Georgics. (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 influential criticism on poem, much of it recent; examination of work’s place within tradition of rural poetry. S/U (2-unit course) or letter (4-unit course) grading.

206. Horace. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

207. Roman Comedy. (2 or 4) Seminar, three hours. Survey of history of Roman comedy. S/U (2-unit course) or letter (4-unit course) grading.

208. Ovid. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

209. Seminar: Roman Satire. (2 or 4) Seminar, three hours. Detailed study of one individual satirist, with attention to his position in development of satiric 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 contemporaneous literary and cultural background. S/U (2-unit course) or letter (4-unit course) grading.


211A-211B-211C. Seminars: Roman Historians. (2 or 4 each) Seminar, three hours. Study of considerable portions of writings of following historians. Each course may be taken independently for credit. S/U (2-unit course) or letter (4-unit course) grading.

211A. Seminar: Tacitus. S/U (2-unit course) or letter (4-unit course) grading.

211B. Seminars: Latin Palaeography. (2 or 4) Seminar, three hours. Study of one work of prose or poetry by younger authors who flourished between death of Ovid and fall of Roman Empire. May be repeated for credit with change in author. S/U or letter grading.

212. Latin Latin Poetry. (2 or 4) Seminar, three hours. 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.

213. Late Latin Language. (2 or 4) Lecture, three hours. Development of Latin from earliest monuments until its emergence in Romance languages. S/U or letter grading.


215. Seminar: Latin Palaeography. (2 or 4) Seminar, three hours. Studies in development of book hand in Latin manuscripts earlier than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.

217. Neo-Latin. (2 or 4) Seminar, three hours. Prepa- ration: at least two upper-division Latin courses. Requisite: course 100. Survey of texts by one or more authors from Renaissance to present, written on related topics. S/U or letter grading.

250. Topical Studies of Ancient Rome. (2 or 4) Seminar, three hours. Advanced study of some aspect of Latin language or literature or Roman culture. May be repeated for credit with change in topic. S/U (2-unit course) or letter (4-unit course) grading.


269. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.
**Cluster Program**

**College of Letters and Science**

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Cluster Program
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Anthony R. Friscia, PhD, Director

Faculty Committee
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Scott H. Chandler, PhD (Integrative Biology and Physiology)
Raffaei A’Dauria (Environment and Sustainability)
Jeffrey L. Decker, PhD (English)
Ryan A. Ellington, PhD (Ecology and Evolutionary Biology)
Anthony R. Friscia, PhD (Integrative Biology and Physiology)
Paul T. Hsu, PhD, MPH (Epidemiology)
Vilma Ortiz, PhD (Sociology)
Theodore M. Porter, PhD (History)
Michelle A. Pensel, PhD (Society and Genetics)

**Scope and Objectives**

Cluster courses are an option for satisfying both general education and Writing II requirement. Clusters are yearlong, collaboratively taught, interdisciplinary courses that focus on a topic of timely importance, such as the global environment or intercultural dynamics. The courses are taught by some of the most distinguished UCLA faculty members and seasoned graduate students. During fall and winter quarters, students attend lecture courses and small discussion sections and/or laboratories. In spring quarter, the same students enroll in one of a number of satellite seminars dealing with topics related to the cluster theme.

Freshman clusters are designed to strengthen the writing, quantitative reasoning, critical thinking, and information literacy skills that students need to excel at UCLA. At the conclusion of the entire yearlong cluster, students complete 40 to 50 percent of their general education course requirements and fulfill the Writing II requirement. Cluster students are eligible for three terms of honors credit, with the spring quarter seminar granting Honors Collegium credit.

For the current cluster course offerings and general education credit, refer to the cluster program website.

**Clusters**

**Lower-Division Courses**

M1A-M1B-M1CW. Food: Lens for Environment and Sustainability. (6–6–6) (Formerly numbered General Education Clusters M1A-M1B-M1CW.) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshman. 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, M1C. Limited to first-year freshmen. Letter grading. M24A-M24B-M24CW. Work, Labor, and Social Justice in U.S. (6–6–6) (Formerly numbered General Education Clusters M24A-M24B-M24CW.) (Same as Labor and Workplace Studies M1A-M1B-M1CW) Course M24A is enforced requisite to M24B, which is enforced requisite to M24CW. Limited to first-year freshmen. Letter grading. M24A-M24B. 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. M24CW. Special Topics. Seminar, three hours. Enforced requisite: course M24B. Topics include labor law, history, gender, race, and workplace. Satisfies Writing II requirement.

25A-25B-25CW. Politics, Society, and Urban Culture in East Asia. (6–6–6) (Formerly numbered General Education Clusters 25A-25B-25CW.) Course 25A is enforced requisite to 25B, which is enforced requisite to 25CW. Limited to first-year freshman. Letter grading. 25A-25B. Lecture, three hours; discussion, two hours. Introduction to key issues in humanities and social sciences through reading of prominent social theories of past four centuries. Consideration of writers from Rousseau and Wollstonecraft to Foucault and Beauvoir in historical context and from perspectives of academic specialists for which their work is fundamental. 25CW. Special Topics. Seminar, three hours. Enforced requisite: course 25B. 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 freshman. 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 overall impact of globalization on human society. 22CW. Special Topics. Seminar, three hours. Enforced requisite: course 22B. English Composition 3 or 3H or English as a Second Language 36. Topics may include global governance, development, and health. Satisfies Writing II requirement.

23A-23B-23CW. Inside Performing Arts: Interdisciplinary Exploration of Performance in Society and Culture. (5–5–5) (Formerly numbered General Education Clusters 23A-23B-23CW.) Course 23A is enforced requisite to 23B, which is enforced requisite to 23CW. Limited to first-year freshman. Letter grading. 23A-23B. Lecture, four hours; discussion, two hours. Introduction to historical development and evolution of performing arts: myth and modernity, music and modern culture, and political, social, and cultural contexts within which performance has evolved. 23CW. Special Topics. Seminar, three hours. Enforced requisites: course 23A; course 23B or English Composition 3 or 3H or English as a Second Language 36. Topics include origins and ideas of performance, art and performance, and music as cultural expression. Satisfies Writing II requirement.

M24A-M24B-M24CW. Work, Labor, and Social Justice in U.S. (6–6–6) (Formerly numbered General Education Clusters M24A-M24B-M24CW.) (Same as Labor and Workplace Studies M1A-M1B-M1CW) Course M24A is enforced requisite to M24B, which is enforced requisite to M24CW. Limited to first-year freshmen. Letter grading. M24A-M24B. 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. M24CW. Special Topics. Seminar, three hours. Enforced requisite: course M24B. Topics include labor law, history, gender, race, and workplace. Satisfies Writing II requirement.
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40A-40B-40CW. Chinese Classics, Their Legacy in East Asia, and Reimagination in Modern Times. (6–6–6) (Formerly numbered General Education Clusters 40A-40B-40CW) Course 40A is enforced requisite to 40B, which is enforced requisite to 40CW. Limited to first-year freshmen. 40A: Lecture, three hours; discussion, two hours. Learning in traditional China was defined through mastery of canon of classic texts that students memorized as part of their education. These classics were also taught in Vietnam, Japan, and Korea, and served to create cultural ties across East Asia. Many more texts came to be considered classics after the founding veneration by large numbers of people across centuries, including religious scriptures, legal codes, novels, paintings, and performances. Exploration of how Chinese classics have been used and reimagined in different places and to demonstrate enduring importance of these texts and cultural artifacts. Emphasis on how these works were interpreted throughout East Asia, relationship with past, and how shared history is seen as informing present. 40CW. Special Topics. Seminar, three hours. Enforced requisite: course 40B. In-depth examination of Chinese classic texts and their reimaginations in modern times. Satisfies Writing II requirement.

60A-60B-60CW. America in Sixties: Politics, Society, and Culture, 1954 to 1974. (6–6–6) (Formerly numbered General Education Clusters 60A-60B-60CW). Course 60A is an enforced requisite to 60B, which is enforced requisite to 60CW. Limited to first-year freshmen. Letter grading. 60A-60B. Lecture, three hours; discussion, two hours. Interdisciplinary exploration of how Brown versus Board of Education (1954) to resignation of Nixon. Topics include civil rights, Great Society, anti-Vietnam war movement, political and artistic countercultures, and changes in technology, law, and media. 60CW. Special Topics. Seminar, three hours. Enforced requisite: course 60B. In-depth examination of political and cultural issues affecting U.S. society from 1954 to 1974. Satisfies Writing II requirement.

66A-66B-66CW. Los Angeles: The Cluster. (6–6–6) (Formerly numbered General Education Clusters 66A-66B-66CW) Course 66A is an enforced requisite to 66B, which is enforced requisite to 66CW. Limited to first-year freshmen. Letter grading. 66A-66B. Lecture, three hours; discussion, two hours. In-depth look at city in which UCLA is located. Drawing on concept of Los Angeles as laboratory, students engage in systematic way with urban area that is to be their home for next several years. As they do, they come to understand peoples, spaces, politics, and cultures of Los Angeles and its metropolitan region in both present and as Los Angeles places in social, political, and cultural urban world. 66CW. Special Topics. Seminar, three hours. Enforced requisite: course 66B. Topics may include musical cultures of Los Angeles, Los Angeles as global city, Los Angeles in fiction, Southern California and environment, planning for 21st-century Los Angeles, and housing and homeless in Los Angeles. Satisfies Writing II requirement.

70A-70DW. Evolution of Cosmos and Life. (6 each) (Formerly numbered General Education Clusters 70A-70DW) Course 70A is an enforced requisite to 70B, which is enforced requisite to 70CW or 70DW. Limited to first-year freshmen. Letter grading. 70A-70B. Lecture, three hours; discussion, two hours. Use of concept of evolution, as it applies to biological organisms, Earth, solar system, and universe itself, to introduce students to fundamental principles of modern cosmology. Examination of evolution of universe, galaxy, solar system, and Earth in course 70A; focus on evolution of life in course 70B. 70CW, Special Topics in Life Sciences. Satisfies Writing II requirement. 70CW. Special Topics in Physical Sciences. Seminar, three hours. Enforced requisite: course 70B. Not open for credit to students with credit for course 70DW. Examination in depth of various issues of evolution in cosmos from life sciences perspectives. Satisfies Writing II requirement. 70A-70B-70CW. Biotechnology and Society. (6–6–6) (Formerly numbered General Education Clusters 70A-70B-70CW) (Same as Society and Genetics M72A-M72B-M72CW, and Sociology M72A-M72B-M72CW) Course 70A is an enforced requisite to 70B, which is enforced requisite to 70CW. Limited to first-year freshmen. Letter grading. 70A-70B. Lecture, three hours; discussion, two hours. Exploration of methods, applications, and implications of biotechnology and of ethical, social, and political implications as well as biological underpinnings. 70CW. Special Topics. Seminar, three hours. Enforced requisite: course 70B. Topics include implications of ethics and human genomics, bioweapons and biodefense, sex and biotechnology. Satisfies Writing II requirement.

72A-72B-72MW. Sex from Biology to Gendered Society. (6–6–6) (Formerly numbered General Education Clusters 72A-72B-72MW) Course 72A is enforced requisite to 72B, which is enforced requisite to 72MW. Limited to first-year freshmen. Letter grading. 72A-72B. Lecture, three hours; discussion, two hours. Examination of many ways in which sex and sexual identity 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. 72MW. Special Topics. Seminar, three hours. Enforced requisite: course 72B. 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, remember, interpret others, and act purposefully in our environment. We can lose these abilities that we take for granted, naturally over time or as result of injury or disease. Brain function with urban 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 interaction of neurological, 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, neurosciences 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 of phenomena. 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. (6) 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. (6) Seminar, three hours. Enforced requisite: course 180A. How tangible and intangible materials of human culture are used by their creators to fashion and refashion their identities over time and in different spaces. Introduction to multidisciplinary perspectives on human cultures and associated objects they create, different issues 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.

COMMUNICATION
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Gregory A. Bryant, Bryant, PhD
Francis F. Steen, PhD
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Senior Lecturers
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The major in Communication Studies 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 Studies BA**

Students fulfilling the major in Communication Studies 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 which the student majors. Students are encouraged but not required to complete as many lower-division preparation courses as possible before admission to the major. Admission to the major requires that the student meet the following minimum standards:

- A combined grade-point average of at least 2.0 in Program in Computing 10A and 10B, and (3) completing four courses (at least one of which must be in communication studies) from Communication 129, 151, 154, 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 10B (petitions should be filed in the Counseling Office). Students graduate with a bachelor's degree in Communication Studies.

- Majors in Communication Studies 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 studies) from Communication 129, 151, 154, 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 10B (petitions should be filed in the Counseling Office). Students graduate with a bachelor's degree in communication studies and a specialization in Computing.

**Learning Outcomes**

The Communication Studies major has the following learning outcomes:

- Demonstrated mastery of substantive areas of the field, including mass communication and media institutions, interpersonal communication, communication technology and digital systems, and political and legal communication
- Placement of particular communication events or examples in the context of broader patterns of human activity
- Critical evaluation of arguments based on evidence
- Design and implementation of original research projects
- Completion, using acquired knowledge and skills, of a project that demonstrates core competencies in the field
- Active participation in learning-in-practice opportunities
- Evaluation and critique of oral presentations
- Demonstrated mastery of conceptualization, formulation, and oral presentation of the student’s own ideas

**Preparation for the Major**

Students are encouraged but not required to complete as many lower-division requirement courses for the major 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 Studies major will be admitted if they can demonstrate that they have completed 90 or more units and at least four of the following seven lower-division required courses: Communication 10 or one interpersonal communication and one mass communication course, one public address course, one linguistics course, one statistics course, and three courses from psychology, American government, sociology, and microeconomics or political economy.

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

**The Major**

Students must complete 10 or 11 upper-division courses. The practicum requirement can be satisfied by a course that also satisfies a core or an additional area elective course requirement.

**Required Core Courses: Communication 100, 150.**

**Required Area Courses:** A total of eight courses from the following four areas, including at least one core course in each area:

- **Communication Technology and Digital Systems—Core courses:** Communication 129, 151, 154, 156, 158; elective courses: Communication 157, 188C, 191C, Geography 138.


- **Mass Communication and Media Institutions—Core courses:** Communication 133, 140, M147, 152; elective courses: Communication 105, 106, 107, 128, 132, 136, M137, 141, 143, 145, 146, 148, M149, M153, M159, M165, 166, M169, 175, 179, 182, 183, 187, 188A, 191A, Film and Television 108, Political Science M142D.

- **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, 141B (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 University of California coursework, (3) complete Communication 188A, 188B, and 188C, 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 Studies 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 studies) from Communication 129, 151, 154, 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 10B (petitions should be filed in the Counseling Office). Students graduate with a bachelor's degree in communication studies and a specialization in Computing.

**Communication**

**Lower-Division Courses**

1. **Principles of Oral Communication. (4) (Formerly numbered Communication Studies 1.) Lecture, four hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Examination of foundations of communication and public speaking. Consideration of number of basic theories related to study of communication and development of skills to enable composition and delivery of speeches in accordance with specific rhetorical concepts. Improvement of ability to analyze, organize, and critically think about communicative messages while becoming better equipped to articulate ideas. P/NP or letter grading.**

- **1A. Public Speaking for Nonnative Speakers. (4) (Formerly numbered Communication Studies 1A.) Lecture, four hours. Designed for nonnative speakers of English to increase fluency and vocabulary while improving presentation skills, language usage, reasoning, style, and delivery. Conversation and pronunciation practice. Focus on theory and practice of public speaking, including selection of content, organization of ideas, language, and delivery. Practice in extemporaneous and manuscript speaking. Critical analysis of speeches in both contemporary and historical settings. Special emphasis on group discus-**
sions, evaluations, practice of both public and private speaking skills. Offered in summer only. P/NP or letter grading.

18. Learning American English and Culture from Movies. (4) (Formerly numbered Communication Studies 11.) Understanding audiences’ fluency in conversational English while increasing their awareness of American popular culture. Primer on American-style colloquial English and nuances of conversations and values offered through guided immersion in popular cinema. 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 fields of mass communication and interpersonal communication. Study of modes, media, and effects of mass communication, interpersonal processes, and communication theory. Letter grading.

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Introduction to Communication Studies. (5) (Formerly numbered Communication Studies 10.) Lecture, from one hour to three hours; discussion, one hour. Introduction to fields of mass communication and interpersonal communication. Study of modes, media, and effects of mass communication, interpersonal processes, and communication theory. Letter grading.


21. Freedom of Communication. (4) (Formerly numbered Communication Studies 101.) Lecture, four hours. Analysis of legal, political, and philosophical issues ensued in rights of free speech, access to audience, and access to information. Study of court decisions governing freedom of communication in U.S. P/NP or letter grading.


23. Communication and Conflict in Couples and Families. (4) (Formerly numbered Communication Studies 116.) Lecture, three hours. Communication and conflict management in close relationships, especially romantic relationships. In-depth coverage of variety of relationship contexts, including intimacy, stages of intimate relationships, and the process of conflict. P/NP or letter grading.

24. Conflict and Communication. (4) (Formerly numbered Communication Studies 110.) Lecture, three hours. Understanding gender is fundamental part of understanding who we are as human beings. Exploration of crucial role of gender in spheres of life involving communication and role and origins of gender differences in communication. Contexts of communication include family, workplace, sexuality, and intimate relationships. Discussion of how media influence conceptions of gender. P/NP or letter grading.

25. Violence and Communication. (4) (Formerly numbered Communication Studies 111.) Lecture, three hours. Analysis of when and why conflict is prevalent in daily lives (including mass media) and how communication affects reactions to and consequences of conflict. Conflict is part of our evolutionary heritage. How well we handle various conflicts affects, to great degree, our success or failure wherever we interact with others, including intimate relationships, school, and workplace. P/NP or letter grading.

26. Current Issues in Vocal Communication. (4) (Formerly numbered Communication Studies 112.) Lecture, three hours. Requisite: course 118 or 120 or 126. Examination of contemporary issues in evolution of communication research. Topics include design of communication systems, animal signaling, social communication, and speech production and perception. P/NP or letter grading.

27. Multimedia Communication and Body Language. (4) (Formerly numbered Communication Studies 113.) Same as Psychology M137B. Lecture, three hours. Examination of how various forms of nonverbal communication convey meaningful information to perceivers, with focus on both production and perception of multiple communication formats (e.g., affect expression of face and body, gesture, and kinematics) with strong emphasis on field experiment. Readings from variety of related fields. P/NP or letter grading.

28. Understanding Relationships. (4) (Formerly numbered Communication Studies 114.) Lecture, four hours. Explanation of types of communication that occur in close relationships, especially romantic relationships. In-depth coverage of variety of relationship contexts, including intimacy, stages of intimate relationships, and the process of conflict. P/NP or letter grading.

29. 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) relationship of these processes to individual psychopathology, marital discord, and family disruption (e.g., separation and divorce). P/NP or letter grading.

30. Negotiation. (4) (Formerly numbered Communication Studies M117.) Same as Labor and Workplace Studies M117.) Lecture, four hours. Art and science of negotiation in securing agreements between independent parties. Theory and practice that underlies successful negotiation. Experiential course in which students 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. P/NP or letter grading.


lives. Satisfies Writing II requirement. Letter grading.

whose talk and action are lodged within both pro-
teresting topics. New approaches to phenomena
between language and human body raises host of in-
portant questions about the nature of language as well as
how it is understood.

Communication Studies M123W.) Lecture, four hours; discussion, one
hour. Requisite: English Composition 3. Relationship
between language and human body raises host of in-
teresting questions about the nature of language as well as
how it is understood.

127. Animal Communication. (Formerly num-
cerated Communication Studies 127.) Lecture, three
hours. Evolution of animal communication systems such as
bark, chimp, shrew, pig, social signals, and human
language. P/NP or letter grading.

128. Play and Entertainment. (Formerly num-
cerated Communication Studies 128.) Lecture, four
hours. Focus on theoretical and practical aspects of
interpersonal and mass communication. Examination of current issues in
personal communication from perspectives of
evolutionary psychology and biology. Topics include
coevolution of signaler and receiver adaptations, non-
verbal communication, courtship, kinship, commu-
nication between sexes, implied language use,
and deception. Letter grading.

129. Animal Communication. (Formerly num-
cerated Communication Studies 127.) Lecture, three
hours. Topics include evolution of animal communication systems such as
bark, chimp, shrew, pig, social signals, and human
language. P/NP or letter grading.

130. Multicultural Television. (Formerly num-
cerated Communication Studies 132.) Lecture, four
hours. Critical evaluation of television programming and scholarly research of new developments in televi-
sion. Application of research findings by students to real-world applications in
course discussions, papers, and presentations. Letter grading.

133. Decoding Media Strategies. (Formerly num-
cerated 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 con-
trary functions determine content of mass media?
Letter grading.

136. Media Portrayals of Gays and Lesbians. (Formerly num-
cerated Communication Studies 136.) Lecture, three hours. How mass media have por-
rayed gays and lesbians and why. Media's depic-
tion, portrayal, and handling of homosexuality, with partic-
ular focus on how gay and lesbian images have been nega-
tively 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.

137. Transnational Bollywood. (Formerly num-
cerated Communication Studies M137.) Lecture, four hours. Study of how popular Bollywood cinema materializes colonial and postcolonial formations pertaining to
gender, class and caste, sexuality, race, and eco-
nomic and political roles, and power and position,
and focuses on how South Asian communities in North America, U.K.,
and Africa. Examination of how complex relationships
between Bollywood and transnational South Asian dias-
poras enable us to better understand South Asian
American communities. P/NP or letter grading.

140. Theory of Persuasive Communication. (Formerly num-
cerated Communication Studies 140.) Lecture, four hours. Dynamics of communication de-
signed to influence human conduct; analysis of struc-
ture of persuasive discourse; integration of theoretical
materials from relevant disciplines of humanities and
social sciences. Letter grading.

141. Films of Persuasion: Social and Political Ad-
vocacy in the Movies. (Formerly numbered
Communication Studies 141.) Lecture, four hours. Films often provide commentary about public issues. Examination of how films communicate to large audi-
ences, how they affect individuals and groups, and how they function within social and political contexts. Critical evaluation of these works to understand power and limitations of films as social persuasion. Letter grading.

142. Rhetoric of Popular Culture. (Formerly num-
cerated Communication Studies 143.) Lecture, three
hours. Rhetorical approach to study of U.S.
popular culture. Examination, at both theoretical level and through specific case studies, of ways in which popular culture has authentically or symbolically influence political and social struggles shaping everyday life. How do particular artifacts or communicative texts constitute source for (re)negotiation of cultural mean-
ings as well as greater understanding of ways lan-
guage functions as vehicle for human action. Letter grading.

144A. M144B. Conversational Structures I, II. (4-
5) (Formerly numbered Communication Studies 144A-
M144B.) (Same as Sociology GM125.) Lecture, four
hours; discussion, one hour. Requisite:
Sociology GM125. Examination of current issues in
personal communication from perspectives of
materialist and postmaterialist theories of communica-
tion, with focus on how people pursue courses of action that count in their lives. Satisfies Writing II requirement. Letter grading.

145. Sociology of Mass Communication. (Formerly num-
cerated Communication Studies M145.) Lecture, four hours. Dynamics of communication de-
signed to influence human conduct; analysis of struc-
ture of persuasive discourse; integration of theoretical
materials from relevant disciplines of humanities and
social sciences. Letter grading.

146. Evolution of Mass Media Images. (Formerly num-
cerated Communication Studies 146.) Lecture, four hours. Exploration of various aspects of online computer games that are becoming increasingly popular and technically so-
phisticated, with focus on how players learn from
games, how they learn it, and whether learning is po-
tentially useful. Letter grading.

150. Methodologies in Communication Research. (Formerly num-
cerated Communication Studies 150.) Lecture, four hours; discussion, one hour. Requisite:
Economics 41 or Statistics 10. Limited to Communi-
cation Studies majors. Critical studies of quantitative and qualitative methodologies in communication re-
search. Letter grading.

151. Computer-Mediated Communication. (Formerly num-
cerated Communication Studies 151.) Lecture, four hours. Examination of how computer tech-
nology, 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.

152. Analysis of Communication Effects. (Formerly num-
cerated Communication Studies 152.) Lecture, four hours. Survey of experimental and field re-
sults and their implications for study of commu-
nication. Study of conversational interaction, such as turn-taking organiza-
tion, repair of rule breaks, and some basic discourse
structures with limited expansions. M144B.
Requisite: course M144A. Examination of some more ex-
panded sequence structures, story structures, topical
sequences, and overall structural organization of
short conversations.

154. Social Communication and New Technology. (Formerly num-
cerated Communication Studies 154.) Lecture, four hours. Internet’s digital core was de-
signed for military command. Yet emerging network was gradually co-opted to perform communicative functions, such as government, news, entertain-
ment, and trade. Exploration of history, social effects, and possible futures of digital communication. Letter grading.

155. Artificial Intelligence and New Media. (Formerly num-
cerated Communication Studies 155.) Lecture, three
hours. Social scientific study of intersection between mass media and men’s aggression against women. Particular consideration of sexual aggression, por-
nography, and characteristics of aggressive men.
Analysis of interaction between nature and nurture.
Letter grading.

156. Social Communication and New Technology. (Formerly num-
cerated Communication Studies 156.) Lecture, four hours. Internet’s digital core was de-
signed for military command. Yet emerging network was gradually co-opted to perform communicative functions, such as government, news, entertain-
ment, and trade. Exploration of history, social effects, and possible futures of digital communication. Letter grading.

157. Society of Mass Communication. (Formerly num-
cerated Communication Studies 157.) Lecture, four hours; discus-
sion, one hour (when scheduled). Studies in rela-
tionship between mass communication and social or-
ganization. Topics include history and organization of major media institutions, social forces that shape pro-
duction of mass media news and entertainment, se-
lected studies in media content and effects of media on society. P/NP or letter grading.

158. Integrated Marketing Communications. (Formerly num-
cerated Communication Studies 158.) Lecture, three hours. Examination of key concepts and
methods in marketing communications in both
traditional and digital media. Development and exe-
cution of communications strategies, with primary emphasis on consumer insight, branding, market seg-
mentation and positioning, promo-
tion, and execution of marketing communications
through appropriate media technologies. Letter grading.

M149. Media: Gender, Race, Class, and Sexuality. (Formerly num-
cerated Communication Studies M149.) Lecture, four hours.
How do the different and often con-
trary functions determine content of mass media?
Letter grading.

M150. Methodologies in Communication Research. (Formerly num-
cerated Communication Studies 150.) Lecture, four hours; discussion, one hour. Requisite:
Economics 41 or Statistics 10. Limited to Communi-
cation Studies majors. Critical studies of quantitative and qualitative methodologies in communication re-
search. Letter grading.
156. Social Networking. (4) (Formerly numbered Communication Studies 156.) Lecture, three hours. Investigation of how online social networks have facilitated interpersonal interactions for knowledge sharing, romance, business, politics, and entertainment. Critical examination of current pop culture 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 personal lives of celebrities impact self-esteem, connectedness, and personal relationships from cultural studies and social sciences perspectives, and how celebrities cultivate celebrity for financial gain. Topics include: gossip, public relations, news sharing, public relations, and impact of social media on fan support, image construction, and damage control. P/NP or letter grading.

158. Revolutions in Communication Technology. (4) (Formerly numbered Communication Studies 158.) Lecture, three hours. Study of dynamic processes of innovation in history of communication from its earliest expressions to information age. Examination of development and appellate processes, 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.) Three hours. History of theories of research on why pornography exists and its effects. 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 political sphere; analysis of contemporary and historical communications within established political institutions; state papers; deliberative discourses; electoral campaigns. Letter grading.

162. Presidential Communication. (4) (Formerly numbered Communication Studies 162.) Lecture, three hours. Examination of historical evolution of presidential communication environment, resources, and strategies. Analysis of how presidential 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. Examination of current popular social and political issues, and how entertainment law affects the legal environment of business, legal, and free speech-related concepts. P/NP or letter grading.

M165. Agitational Communication. (4) (Formerly numbered Communication Studies M165.) (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 techniques and content of their communication. 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 Camp- 

158A. Critical Thinking: Analysis, Evaluation, 

158B. Nonverbal Communication in Architecture. (4) (Formerly numbered Communication Studies 182.) Lecture, four hours. Study of elements of design and style of various buildings in architectural history send messages to viewers and users of such buildings. Letter grading.

158C. 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. Letter grading.

158D. Variable Topics in Interpersonal Communication. (4) (Formerly numbered Communication Studies 188D.) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

158E. Variable Topics: Practicum. (4) (Formerly numbered Communication Studies 188E.) Lecture, three hours. Practicum lectures on selected topics in communication. Reading, writing, discussion, and development of critical thinking. May be repeated for credit with topic change. P/NP or letter grading.

158F. Advanced Honors Seminars. (1) (Formerly numbered Communication Studies 189.) Seminar, three hours. Limited to 20 students. Designed as an introduction to graduate level 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. 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: 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.

M191DC. CAPPP Washington, DC, Research Seminars. (8) (Formerly numbered Communication Studies M191DC.) Same as History M191DC, Political Science M191DC, and Sociology M191DC.) Seminar, three hours; laboratory, 24 hours. Limited to CAPPP 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 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.

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. Research projects of faculty members. 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 or business. Students meet with advisor 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 progress to supervising faculty member. Requisites: courses 10, 150. Development of comprehensive research project under direct supervision of faculty member. 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.) 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.

COMMUNITY HEALTH SCIENCES

Jonathan and Karin Fielding School of Public Health

36-071 Center for Health Sciences Box 951772
Los Angeles, CA 90095-1772

Community Health Sciences
310-825-5308

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Dawn M. Upchurch, PhD, LAc, Vice Chair

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Deborah C. Glik, ScD
Kimberly D. Gregory, MD, MPH, in Residence
Robert J. Kim-Farley, MD, MPH, in Residence
Joseph D. Koppell, MD, in Residence
Michael C. Lu, MD, MPH
James A. Macinko, PhD
Anne R. Pebley, PhD (Fred H. Bixby Professor of Populations and Policy)
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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 DrPH) and academic (MS and PhD) degree programs. Graduates of the professional programs assume positions in the planning, administration, and evaluation of public health programs and policies in the U.S. and abroad. Graduates of the academic programs assume teaching, research, and managerial positions in universities, government agencies, nongovernmental organizations, international health agencies, and research centers.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate
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 Professional students (MHPH) degree. A concurrent Master of Public Health for Professional and Community Health Sciences (MHPH/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. (6 Lecture, two hours; discussion, one hour. Overview of nutritional science and public health nutrition. Examination of basic science concepts of nutrition and application of them to student lives and real-world issues through lectures, videos, diet analysis, activities, reports, discussion of video and reading assignments, and reviews of community programs that apply nutrition and behavior theory to improve health of individuals. Students use observational research methods to create and answer questions about nutrition question in their cohort. P/NP or letter grading.

60. Intergroup Dialogue: Peer Dialogue. (2 Seminar, two hours. Discussion on issues of difference, conflict, and community to facilitate understanding between social/cultural groups. Student participation in semi-structured face-to-face meetings with students from other social identity groups to learn from each other’s perspectives, read and discuss relevant reading material, and explore their own and other groups’ experiences of social and institutional contexts. Exploration of ways of taking action to create change and bridge differences at interpersonal and social/community levels. P/NP or letter grading.

80. FITTED: Fitness Improvement Training through Exercise and Diet. (3 Lecture, one hour, two activity, two hours. Success in undergraduate experience is very much influenced by attributes beyond intellectual competence. Examination of personal, social, and environmental factors that influence college students’ eating behaviors, physical activity patterns, and body image. Development of individualized student plans for eating well, being active, and feeling good about their bodies. Learn practical skills with application to nutrition, physical activity, positive body image, stress management, and other aspects of wellness as students participate in critical evaluation of popular diets, healthy body weights, fitness, supplements, media body ideals, and self-destructive thoughts. P/NP or letter grading.

100. Introduction to Community Health Sciences. (4 Lecture, four hours. Introduction to health/promotion and research methods and health promotion strategies and methods, and public policy. Case studies of evidence-base health promotion programs provided. Letter grading.

110. Nutrition and Health. (4 Lecture, three hours; laboratory, one hour. Preparation: one biology course, one chemistry course. Basic and clinical nutrition theory and practice for students in health sciences curricula. P/NP or letter grading.

131. Healthy Food Access in Los Angeles: History and Practice of Urban Agriculture. (4 Lecture, three hours; history, economic, and recent revival of urban agriculture (gardening) in Los Angeles area. Exploration of how urban gardening is response to crises such as U.S. obesity epidemic and resulting health problems and industrial agriculture in California and elsewhere in U.S. Exploration of how urban agriculture from healthy food/active living and consumer movements that advocate 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, three hours; fieldwork, one hour. Introductory overview of mental and physical health issues of Asian Americans and Pacific Islanders; identification of gaps in health status indicators and barriers to both care delivery and research for these populations. P/NP or 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 theoretical and research foundations of intergroup dialogue, peer-facilitated discussions involving relationship building (and coalition building) through thoughtful engagement among 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. Conduction of weekly dialogues with students on specific identity themes and further development of knowledge and techniques in areas of group dynamics, conflict intervention, communication, and development of 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, intervention strategies of current policy, 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. Prerequisite: Molecular Cellular 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, 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; laboratory, two hours. Prerequisite: Theory, training, and experience in health/wellness promotion and health/wellness education in selected campus communities. Participation in super-vised small-group program planning project. Letter grading.

187A-187B. Introduction to Interventions for At-Risk Populations. (4–4 Lecture, three hours; committee/meetings/community service, two to six hours. Course 187A is requisite to 187B. Designed for juniors/seniors. Health and social needs/services from primarily public health perspective, drawing on relevant academic/professional 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.

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 topic areas vary with instructor. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture courses. Senior-level topics 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 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. Directed Reading in Community Health Sciences. (4) Lecture, tutorial, six hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Further supervision provided by public health organization for which students do internship. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract required. Placement 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. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Global Health Problems. (4) Lecture, two hours; discussion, two hours. Overview of health profile of world in the century. Global health problems and major health issues have been the focus of the Department of Public Health and Social Research. Letter grading.


M208. Introduction to Demographic Methods. (4) (Same as Biostatistics M208, Economics M208, and 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.

209. Demographic Techniques II: Modeling Population Processes and Dynamics. (4) Lecture, three hours. Enforced requisites: course M208. Population modeling in public health policy and decision making. How demographic models are used in estimation of population size, its age structure, and dynamics associated with these processes. Advancements in computer science used to provide students with understanding of simulation of demographic processes to draw conclusions from demographic models. Emphasis on estimation of demographic models in human population while making clear broader relevance of demographic analysis to study of any population or system, including health and social systems. 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 behavior, impact of social and community structure on health status, major contemporary approaches to health promotion and health education at community level, and different comparative international perspective. Letter grading.

211A-211B. Program Planning, Research, and Evaluation in Community Health Sciences. (4-4) Lecture, three hours; discussion, one hour; outside assignment, five hours. Course 211A is prerequisite to 211B. Development, planning, and administration of public health programs in community settings. Introduction to range of research methods and techniques used in designing and conducting health research, with particular emphasis on evaluation of community-based public health programs. Course organized into three modules. Letter grading. 211A. Requisite: course 210; 211B. Requisites: courses 210, 211A, and Biostatistics 100B. 40E. 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.

212. Advanced Social Research Methods in Health. (4) Lecture, four hours; laboratory, two hours; outside assignments, eight hours. Requisites: courses 211A, 211B, Biostatistics 100B, 40E. 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.


216. Qualitative Research Methodology. (4) (Same as Anthropology M284A.) Seminar, three hours; laboratory, one hour. Field-based social science course in qualitative research methodology. Emphasis on using qualitative methods and techniques in research and evaluation related to healthcare. Letter grading.

M218. Questionnaire Design and Administration. (4) (Same as Epidemiology M218.) Lecture, four hours. Requisites: courses 211A and 211B, or Biostatistics 100B and 200C, Design, testing, field use, and administration of data collection instruments, with particular emphasis on questionnaires. Letter grading.

219. Theory-Based Data Analysis. (4) Seminar, three hours. Enforced requisites: Biostatistics 100A, 100B, 406. Translation 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 regression and logistic regression. Analysis of theoretical problem using student quantitative data or public use data. Letter grading.

M220. Racial 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, with focus on (1) conceptualizing racism-related factors as social determinants of health, (2) building methodological competence for conducting research on race as social determinant of health, and (3) developing critical self-consciousness to better understand how persons’ racial- or racism-related perspectives and experiences might inform their research. Letter grading.

M222. Understanding Fertility: Theories and Methods. (4) (Same as Sociology M222.) Lecture, three hours; discussion, two hours. Enforced requisites: courses 211A and 211B, or Biostatistics 100B. Application of demographic theories and methods to describe fertility trends and differentials and social and private determinants of fertility, with emphasis on understanding key proximate determinant. For advanced students interested in research on fertility and family planning. Letter grading.

M225. Writing for Publication in Public Health. (4) Lecture, three hours. Enforced requisites: course 218, 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.


M228. Introduction to Mixed Methods Research. (4) (Same as Health Policy and Management M228.) Seminar, three hours; discussion, one hour. Limited to graduate students. Highly recommended: Health Policy and Management 225A and 225B, or completion of a research 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 methods research design and to design mixed methods research investigation for health issue of interest. Study of different mixed methods research designs commonly used in public health and health sciences research, including feasibility studies, convergent parallel design, sequential mixed methods, and multistage use. Use of combination of didactic and applied techniques. S/U or letter grading.

229. Policy and Public Health Approaches to Violence Prevention. (4) Lecture, four hours. How policies relate to violence and development of skills to transmit this knowledge. Examination of wide range of policy topics and how each might be associated with reductions in prevalence of violence-related injury. Letter grading.

230. Family and Sexual Violence. (4) Lecture, three hours; community, three to four hours. Examination of rage, jealousy, and spousal violence. Presentation of definitions, causes, outcomes of research on family and sexual violence, as well as response of social service, medical, and criminal justice systems. Letter grading.


M232. Determinants of Health. (4) (Same as Health Policy M242.) Lecture, three hours; discussion, one hour. Limited to graduate students. Critical analysis of models for what determines health and evidence for socioeconomic, cultural, and environmental factors that influence health of populations and defined subgroups. Letter grading.

233. Hunger and Food Insecurity as Public Health Issues. (4) Lecture, three hours. Designed for graduate students. Public health challenges of hunger and food insecurity in historical and international perspectives, including measurement and identification of vulnerability, prevention, and options for relieving acute food shortage. Letter grading.
M234. Obesity, Physical Activity, and Nutrition Seminar. (4) (Same as Health Policy M253.) Seminar, three hours; outside study, one hour. Designed for graduate students. Multidisciplinary introduction at graduate level to epidemiology, physiology, and current state of prevention and therapeutic interventions for obesity in adults and children, including public health policy approaches to healthy nutrition and physical activity promotion. S/U or letter grading.

235. Influence of Social and Physical Environment on Racial Health Disparities. (4) Seminar, three hours. Preparation: at least one biostatistics or epidemiology course. Limited to graduate students. Examination of health disparities arising because minorities and low-income populations may contribute to health disparities. Discussion of multiple factors that contribute to environmental injustice and their potential solutions. Do health disparities arise because minority and low-income populations live in harmful environments? Is relationship between environment and health disparities merely one of potential exposure to chemical/physical hazards, or are there psychosocial mechanisms at community level that act above or beyond effects of physical environment? Letter grading.


238. Evolving Paradigms of Prevention: Interventions in Adolescence. (4) Seminar, three hours. Adolescence health and interventions, with focus on sex, alcohol, and drug use. Focus on adolescent identity development, adolescent sexuality, discussion of gay, lesbian, bisexual, and queer issues, components of sexual risk-taking behavior, and alcohol and drug use (e.g., peer influence, changes in brain activity) and interventions that have been developed to address these behaviors. Building of skills to work with adolescent populations and in community-based settings. Letter grading.

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

240. Child and Reproductive Health in Communities: Global Environmental Perspective. (4) Lecture, three hours. Recommended requisites: course 100, Epidemiology 100. Limited to graduate students. Examination of global issues of child and reproductive health in relation to environmental factors in interplay with socioeconomic and biological factors. Environmental influences are responsible for one quarter of total burden of disease worldwide, and for more than one third of burden among children—most of them living in inequalities and communities. Discussion of impacts of qualitatively different, and potentially modifiable, factors such as access to safe water or urbanization, as well as environmental contribution to high-burden outcomes in childhood and reproduction. Focus on lower income settings and discussion of relevant population-based approaches to assessment and intervention. Letter grading.


246. Women’s Roles and Family Health. (4) Lecture, two hours; discussion, one hour. Rapidly changing role of women having important effects on women’s own health and that of their families. Analysis of multidisciplinary research from both developing and industrialized countries to provide basis for in-depth discussion of programmatic and policy implications. Letter grading.

247. Population Change and Public Policy. (4) Lecture, four hours. Examination of international population change, population-related policies, and public health implications of demographic processes. Letter grading.

M249L. Ethical Theory and Applications in Public Health. (4) (Same as Health Policy M285.) Lecture, four hours. Requisites: Health Policy 200A, 200B. Introduction to ethical theories and critical ethical issues pertaining to healthcare policy and healthcare management. Research, writing, and discussion on variety of topics related to health and human rights to enhancing professionalism, leadership, and systems thinking and improve student sensitivity to needs of patients, cowokers, and fiduciary shareholders. How ethics are foundation of leadership. Letter grading.

M250. HIV/AIDS and Culture in Latin America. (4) (Same as Latin American Studies M262.) Seminar, three hours. Exploration of cultural, political, and public health context for people living with and at risk for HIV/AIDS in Latin America. Public health aspects, including epidemiology, morbidity concerns and community interventions, medical anthropological study of experience of those impacted, skills in qualitative/economic context addressing poverty and structural violence. Letter grading.

M251. Nutritional Epidemiology I. (4) (Same as Epidemiology M254.) Lecture, two hours; discussion/lab, 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 food-borne outbreak investigation to evidence-based regulatory assessment of health claims for foods. Experience in actual work of collecting, analyzing, and interpreting data related to nutrition and health or disease outcomes. S/U or letter grading.

M252. Health Policy Analysis. (4) (Same as Health Policy M253.) Lecture, three hours. Requisites: Health Policy 100 or 200A, M236, M287. Conceptual and procedural understanding of the health care delivery system. Emphasis on role of health policy in shaping financing of health care, national policy issues pertaining to healthcare policy and healthcare management. Research, writing, and discussion on variety of topics related to health and human rights to enhancing professionalism, leadership, and systems thinking and improve student sensitivity to needs of patients, cowokers, and fiduciary shareholders. How ethics are foundation of leadership. Letter grading.

M253. Health Policy Analysis II. (4) (Same as Epidemiology M254.) Lecture, two hours; discussion/lab, 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 food-borne outbreak investigation to evidence-based regulatory assessment of health claims for foods. Experience in actual work of collecting, analyzing, and interpreting data related to nutrition and health or disease outcomes. S/U or letter grading.

M254. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) (Same as Anthropology M230Q and Latin American Studies M262.) Lecture, three hours. Preparation: course 122, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and infectious diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audiocassette. Letter grading.

270A-270B. Foundations of Community Health Sciences. (4-4) Lecture, four hours. Enforced requisite: 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.


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. Emphasis on lifestyle and other socio-environmental factors associated with general susceptibility to disease and subsequent mortality. Letter grading.


277. Advanced Community Health Education. (4) Lecture, three 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 practical skills developed and applied in constructing community-based educational program. Letter grading.
291. Health Policy and Aged. (4) Lecture, three hours; discussion, one hour. Examination of political, economic, and social forces that shape health policy for aged, identifying failings in those policies within framework of broader health policy problems. Letter grading.

292. Information Technology for Health Promotion and Communication. (4) Lecture, three hours; field practice, one hour. Requisites: course 210 or prior social sciences courses. Health literacy, Internet use and health communication, use of digital media to create and disseminate public health information, and evaluation of the impact of communication tools and technologies on health communications. 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 issues in the social, behavioral, and health sciences related to AIDS. 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. To be taken in conjunction with selected courses and/or by students interested in teaching graduate or undergraduate courses in the School of Public Health. May be repeated for credit. S/U or letter grading.

400. Field Studies in Public Health. (4) Fieldwork, to be arranged. Field observation and study 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 60-unit minimum total required for MPH degree. Letter grading.

411. Issues in Cancer Prevention and Control. (4) (Same as Health Policy M411.) Lecture, four hours. Designed for graduate students. Introduction to causes and characteristics of cancer, cancer control goals for nation, and interventions designed to encourage smoking cessation/prevention, cancer screening, and other dietary, psychosocial, and lifestyle changes. Letter grading.

420. Children with Special Healthcare Needs: Systems Perspective. (4) (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 special needs of 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 main programs designed to address them. Topics include maternal, infant, child health, STIs, abortion, adolescents, HIV/AIDS, and refugees. Letter grading.

M270. Work and Health. (4) (Same as Environmental Health Sciences M270L.) Lecture, three hours; practicum, one hour. Recommended preparation: graduate-level methods/statistics course, basic epidemiology. Designed for graduate students. Examination of physical and psychological health in context of newly emerging discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. S/U or letter grading.

281A. Capstone Seminar: Health Promotion and Education. (4) Formerly numbered 281A. Seminar, 90 minutes; discussion, 90 minutes. Enforced 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 Education. (2) Lecture, three hours; discussion, one hour. Requisites: course 210, or prior health policy course such as Health Policy M247 or Health Policy M287. Lecture, three hours; discussion, one hour. Requisite: course 210. Building advocacy skills for reproductive health. 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 diagnosed with a mental illness. Group differences (gender, ethnicity) in disorder and how it is socially constructed. Letter grading.


287. 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 political structure and institutions; economic and social factors; interest groups, classes, and social movements; media and public opinion on health policy. 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: media content analysis, writing popular nonfiction (blogs, articles, podcasts, radio), writing 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 American, Latino, and Asian elderly examined through their family experiences, community and nation. Exploration of cultural and structural influences on health and lived experiences of those elders. Letter grading.
history of child health policy trends and determinants of health, structure, and function of health service system; needs, programs, and policies affecting especially at-risk populations. 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 services 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 Programs. (4) Lecture, four 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; budget and work plan development; funding; evaluation design; data and cost analysis; and project presentation. Letter grading.

444. Anthropometric and Dietary Aspects of Nutritional Assessment. (4) Lecture, two hours; discussion, one hour; laboratory, two hours. Practical skills in anthropometric and dietary assessment, including selection and use of unique anthropometric 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; student participation, one hour. Requisite: course 434A. Problems and priorities in nutrition education and training for families and health workers in Third World countries, including new concepts in primary healthcare services, mass media, communications, and governmental and international interventions. S/U or letter grading.

447. Health and Social Context in Middle East. (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, governmental, and nongovernmental agencies. Emphasis on meeting needs of vulnerable populations. Letter grading.

449. Nutrition and Chronic Disease. (4) Lecture, four hours. Requisite: course 130 or one introductory nutrition or biology course. Advanced-level discussion on nutritional needs of healthy individuals, current knowledge of role of nutrition in disease prevention, nutritional and metabolic responses to disease, and role of nutritional therapy in management of disease. Letter grading.

451. Post-Disaster Community Health. (4) Lecture, four hours. Examination of how public health research and practice can be combined to address post-disaster community health needs. Identification of disaster-related health problems, data collection strategies, 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. Basic principles required to design rational and cost-effective food and nutrition emergency relief approaches and programs. Letter grading.

CM470. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) (Same as Environmental Health Sciences M471 and Urban Planning M470.) 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 CM170, S/U or letter grading.

477. Health Disparities, Health Equity, and Sexual Minority Populations. (4) Lecture, two hours; discussion, one hour. Limited to graduate students. Examination 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 recommendations for achieving reductions in each area. Discussion of considerations for providing clinical care and public health practice in this population, 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. Requisites: 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 sciences courses. Risk communication theory, research, and practice, including social and psychological bases of population risk perceptions, media theories, and how risk is portrayed in media. Environmental, product safety, food-borne and infectious diseases, disasters, and bioterrorism communication. Competencies: understanding everyday and emergency risk communication principles, creating valid risk communication messages and materials, working proactively with new media. Letter grading.

485. Resource Development for Community Health Programs. (4) Lecture, three hours; fieldwork, one hour. Designed for graduate students. Overview course of fund and resource development for public health and community-based programs. Lectures and workshops include developing grant proposals, researching funding sources, evaluating proposals, developing volunteer and in-kind resources, and implementing capital campaigns. Letter grading.


501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate adviser and student 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 toward minimum graduate course requirement. S/U grading.

596. Directed Individual Study or Research. (2 to 12) 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 or 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.

598. Master's Thesis Research. (2 to 12) 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.

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.
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 parameters 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 analytical 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 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 equivalent of a language other than English, and file a petition with either the faculty or staff undergraduate adviser, 350B Humanities Building, 310-825-7650.

Required Courses (28 units minimum): (1) Four upper-division comparative literature courses (one course from Comparative Literature 1A through 4DW may be substituted), (2) two upper-division courses in one literature (e.g., Arabic, Chinese, English, French, German, Korean, Russian, Spanish) in the original language, and (3) one upper-division course in a second literature in the original language (one level-six foreign language course may be substituted). If students complete two upper-division courses in a language other than English, they may petition to take one upper-division course taught in English translation to fulfill the third requirement.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Comparative Literature offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Comparative Literature.

Comparative Literature

Lower-Division Courses

1A. World Literature: Antiquity to Middle Ages. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2AW or 4AW. Study of major texts in world literature, with emphasis on Western civilization. Texts include major works and authors such as liad or Odysse, Greek tragedies, portions of Bible, Virgil, Petronius, St. Augustine, and others such as Gilgamesh or Tristán and Isold. P/NP or letter grading.

1B. World Literature: Middle Ages to 18th 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 2BW or 4BW. Study of world literature, with emphasis on Western civilization as it grapples with its past and with other civilizations. Examination of works such as Dante’s Divine Comedy, Cervantes’ Don Quixote, Shakespeare’s King Lear, and Sor Juana’s Modern 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: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2BW or 4BW. Study of 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.

1E. Social Media and Storytelling: Comparing Cultures. (5) Lecture, two hours; discussion, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of social media as platform for storytelling, with core focus on three distinct cultures: U.S., China, and Russia. History, form, and various functions of social media. Examination of how we tell stories about ourselves and how we interpret digital
narratives we see, hear, or read from organizations near and far. Analysis of networked narratives encountered online. P/NP or letter grading.

2AW. Survey of Literature: Antiquity to Middle Ages. (5) Lecture, two hours; discussion, two hours. Enforced requisites: 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 of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Includes works and authors such as Odyssey, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Becouw, Marie de France, Tristan and Isolde, 1001 Nights, Iliad, Odyssey, Aeneid. Satisfies Writing II requirement. Letter grading.

2BW. Survey of Literature: Middle Ages to 17th Century. (5) Lecture, two hours; discussion, two hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1B or 4BW. Study of selected texts from Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts from at least three of following areas read in any given term: African, Caribbean, East Asian, Latin American, and Middle Eastern literature. Satisfies Writing II requirement. Letter grading.

2CW. Survey of Literature: Age of Enlightenment to 20th Century. (5) Lecture, two hours; discussion, two hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1C or 4CW. Study of texts from 18th and 19th century, with emphasis on literary analysis and expository writing. Texts include works by authors such as Voltaire, Diderot, Rousseau, Goethe, Flaubert, M. Shelley, Dostoevsky, Kafka, James Joyce, Garcia Marquez, and Jamaica Kincaid. Satisfies Writing II requirement. Letter grading.

2DW. Survey of Literature: Great Books from World at Large. (5) Lecture, two hours; discussion, two hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1D or 4DW. Study of major literary texts usually overlooked in courses that focus only on canon of Western literature. Texts include works by ancient authors such as Sappho, Greek tragedies, Aeneid, Petronius, Becouw, Marie de France. Satisfies Writing II requirement. Letter grading.

4AW. Literature and Writing: Antiquity to Middle Ages. (5) Lecture, two hours; discussion, two hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1A or 2AW. Study and discussion of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Includes works and authors such as Odyssey, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Becouw, Marie de France. Satisfies Writing II requirement. Letter grading.

4BW. Literature and Writing: Middle Ages to 17th Century. (5) Discussion, four hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1B or 2BW. Study and discussion of selected texts from Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts may include works and authors such as Chaucer, Dante, Cervantes, Marivaux, Racine, Shakespeare, Calderon, Molieres, and Racine. Satisfies Writing II requirement. Letter grading.

4CW. Literature and Writing: Age of Enlightenment to 20th Century. (5) Discussion, four hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1C or 2CW. Study and discussion of selected texts from Age of Enlightenment to 20th century, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, M. Shelley, Flaubert, Ibsen, Strindberg, Dostoevsky, Gogol, Kafka, Joyce, Beckett, L. Hughes, and Garcia Marquez. Satisfies Writing II requirement. Letter grading.

4DW. Literature and Writing: Great Books from World at Large. (5) Discussion, four hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1D or 2DW. Study and discussion of major literary texts usually overlooked in courses that focus only on cannon of Western literature, with emphasis on literary analysis and expository writing. Texts from at least three of following areas read in any given term: African, Caribbean, East Asian, Latin American, Middle Eastern literature. Satisfies Writing II requirement. Letter grading.

10. Virtual Realities: Introduction to Humanities. (5) Lecture, two hours; discussion, two hours. What exactly are humanities? Position of humanities as not science is becoming unclear as human communication, thought, and culture are increasingly tied to technology. Examination of various disciplines within humanities at UCLA to define their place in today’s society. Contemplate their possible function in tomorrow’s world, the future of humanities and will and will not cater in future. 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 from different disciplines and illuminating many paths of discovery at UCLA. P/NP or letter grading.

20. Blockchain: Future of Absolutely Everything. (5) Lecture, three hours; discussion, one hour. Interdisciplinary examination of social, cultural, and scientific workings of blockchain. Critical exploration of ethical, legal, and cultural effects of blockchain’s potential to improve human behavior and impact our sensor network and illuminate many paths of discovery at UCLA. 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 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.

M110. Thousand and One Nights. (4) Lecture, three hours. Knowledge of Arabic not required. Since its appearance in Europe in 1704, Thousand and One Nights is most well-known work of Arabic literature in 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.

111. Histories and Methodologies of Comparative Literature. (5) Seminar, three hours. Preparation: satisfactory of Entry-Level Writing and College writing requirements. Requires: two courses from Comparative Literature 1 or 2 series or English 10 series or Spanish 60 series. Recommended: course 100. Exploration 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.


103. People on Run: Migrants, Minorities, and Multiculturalism in Europe. (4) Seminar, three hours. Prepared for nonspecialists and refugees in ongoing crisis of European Union. Examination of contemporary crisis of European Union and of European multiculturalism in particular. Overview of history of European integration since World War II, as well as more focused examination of ways in which culture and migration have come to dominate discussions of future of what had primarily been conceived of as one economic union. Offered in summer only. P/NP or letter grading.

C105. Comic Vision. (4) Lecture, three hours. Designed for upper-division literature majors. Literary masterpieces, both dramatic and nondramatic, selected to demonstrate variety of comic expression. May be concurrently scheduled with course 220D. Undergraduate students read all works in translation. P/NP or letter grading.

M107. Archetypal Heroes in Literature. (4) Seminar, three hours. Designed for juniors/seniors. Survey and analysis of function and archetypes of archetypal heroes as Achilles, Ulysses, Prometheus, Odysseus, and Orpheus in literature from antiquity to modern period. All works read in translation. P/NP or letter grading.

108. Autobiography in Francophone and Anglophone Worlds. (5) Seminar, three hours. Designed for juniors/seniors. Focus on number of narratives that use autobiographical mode to situate self in relation to history of nations and biography of family members. Introduction to theories of subjectivity and to genre of self-writing in France, Africa, and Caribbean. Examination of serial autobiography of Assia Djebar, Annie Ernaux, and Jamaica Kincaid to better understand limits of genre. Texts represent different limits of autobiography and can be read as biography, autobiography, and auto/biography. Examination of differences that emerge between autobiographical pact (Lejeune) that some authors create with their readers and liberties that others take with history. Attention to way visual culture (painting, photography, film) helps authors make their point, access memory, or create metaphors of self. P/NP or letter grading.

The above text is a representation of a page from a document, likely a course catalog or literature course description. It outlines various literature courses, ranging from ancient texts to modern, with a focus on the themes, authors, and approaches to literary analysis and expository writing. The courses cover a wide range of periods and literary traditions, from the Age of Enlightenment to the 21st century, and include works from different cultural backgrounds, such as African, Caribbean, East Asian, Latin American, and Middle Eastern literature. The courses are designed for both undergraduate and graduate students, with options for honors credit and varying grading policies.
177. Comparative Literature of Francophone and Anglophone Caribbean. (5) Seminar, three hours. Designed for juniors/seniors. Introduction to literature and culture of Caribbean basin from New Orleans to Haiti, Martinique, Guadeloupe, Jamaica, Antigua, or Trinidad. Topics include history of French and English colonial influences and rivalries, Haitian revolution and its literary legacies, emergence of nationalist discourses, search for cultural identity, rhetoric of negritude, global culture, popular culture, mass media and literary achievements of African diaspora. P/NP or letter grading.

C178. India: Link: Literature and Culture of Modern South Asia. Three hours. Survey of significant issues in history of 20th-century Indian literature and culture. Great works of modern Indian culture by such figures as Rabindranath Tagore, Satyajit Ray, Fazl Ahmed Faiz, and U.R. Anantha 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 imperialism and mass 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 national independence from British under leaders like Mahatma Gandhi and expansion of Indian diaspora. Concurrently scheduled with course C278. P/NP or letter grading.

M179SL. Movement in Art, Philosophy, and Daily Life. (3) (Term Studies M179SL) Seminar, three hours; fieldwork, 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 content of movement. 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 systems of control over 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.

180. Variable Topics: Medical Humanities in Comparative Contexts. (4) Seminar, three hours. Designed for juniors/seniors. Study and discussion of defined periods and approaches in medical humanities, giving pride of place to literary and cultural expressions, discussion of foreign language. Survey of important movements in clinical 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.

180L. Variable Topics: Medical Humanities in Comparative Contexts and Community-Based Learning. (4) Seminar, three hours; fieldwork, three hours. Exploration of topics in medical humanities with community service component, giving pride of place to literary and cultural expressions with other disciplines such as art, philosophy, or sociology. Ways in which humanities can make contributions to Los Angeles community through service learning. 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.

186. Undergraduate Research Seminar: Comparative Literature. (4) Seminar, three hours. Preparation: satisfaction of Entry-Level Writing and College Writing requirement. Undergraduate research seminars interested in learning more about 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 complete final paper on topic of their own design. P/NP or letter grading.

C187. Reading across Culture. (5) Seminar, three hours. What do we try to understand 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, Gayatri Spivak, and Erich Auerbach. Concurrently scheduled with course C287. 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 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 grading.

191. Variable Topics in Comparative Literature. (4) Seminar, three hours. Designed for juniors/seniors. Study and discussion of 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 specified term. May be repeated for credit with topic change. P/NP or letter grading.

197. Individual Studies in Comparative Literature. (4 to 6) Tutorial, three hours. Preparation: reading knowledge of one appropriate foreign language, completion of honors thesis or comprehensive project required. Honors content noted on transcript. Letter grading.

198. Honors Research in Comparative Literature. (4 to 6) 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 the discipline required for credit. Individual contract required. P/NP or letter grading.

198B. 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 Greek, Latin, or Italian. Analysis of Greek and Roman works and their re-creations in Renaissance and modern periods. Emphasis on how poets build on their predecessors. Reading may range from Iliad or Odyssey to tragedies by Sophocles or Euripides or satires by Aristophanes. S/U or letter grading.

205. Comic Vision. (4) Lecture, three hours. Preparation: reading knowledge of an appropriate foreign language. Literary masterpieces, both dramatic and nondramatic, selected to demonstrate varieties of comic expression. May be concurrently scheduled with course C110S. 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.

206. Archetypal Heroes in Literature. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Survey and analysis of function and appearance of such archetypal heroes as Achilles, Ulysses, Prometheus, Oedipus, and Orpheus in literature from antiquity to modern period. 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. Drawing on literary, social, cultural, economic, art history, and manuscript studies to trace formation of discourses produced by diverse encounters. Consideration of bilingual texts and translation. May be concurrently scheduled with course C122. 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.

C222. Renaissance Drama. (4) Lecture, three hours. Preparation: reading knowledge of one appropriate foreign language. Broad introduction to subject matter and types of plays in 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 C122. 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.

M251. Literatures and Cultures of Maghreb. (4) (Same as Arabic M255.) Seminar, three hours. Limited to graduate students. Examination of traditionally divided literatures of Maghreb. Multiple literatures competing contexts of language and gender politics, religious and cultural formations, Pan-Arabism and post-colonial nationhood, Third-Worldism and economic development, modernity and globalization, Third-Worldism and economic development, modernity and globalization. Readings of literatures in English and in English translations from different Maghrebian languages (particularly Arabic and French) in conjunction with theories of language and linguistic pluralism, cultural translation, deconstruction, and host of other relevant theories of gender, globalization, and postcolonial cultural studies. S/U or letter grading.
252. Symbolism and Decadence. (5) Seminar, four hours. Preparation: reading knowledge of French. Study of symbolist and decadent movements in 19th- and 20th-century English and French poetry and prose, including authors such as Baudelaire, Rimbaud, Verlaine, Mallarmé, Wilde, Yeats, and Eliot. May be concurrently scheduled with course C152. 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.

266. Writing and Photographic Image. (4) Seminar, three hours. Preparation: knowledge of one appropriate foreign language. Designed for graduate students. Investigation of relationships between writing and photography in American and European contexts. Study rests on premise that photograph enters public domain framed by writing and discourse and that this framing is framed by photographic modes of representation. S/U or letter grading.

267. Comparative Arab Studies. (5) Seminar, three hours. Preparation: knowledge of one appropriate foreign language. Investigation of ways in which Arab litterateurs, artists, and intellectuals have perseveringly sought to imagine and construct viable structures of cultural empowerment on pyre 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 (ilizmar) to fundamentally transform 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.

270. 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 women's 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.


272. Postmodern Novel. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of postmodern novel as it developed outside of modernism. Postmodernism defined in three different ways—philosophically, scientifically, and economically. Emphasis on relationship of new novels to traditions of structure and poststructurality. 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 group one additional hour each week. S/U or letter grading.

274. Theorizing Third World. (4) (Same as Asian American Studies M274.) 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. S/U or letter grading.


276. Reading Modern Bodies. (4) (Same as Japanese M276.) Seminar, three hours. Designed for graduate students. Examination of human body through various modern technologies and diagrams, including those of disease, diet, race, gender, and sexuality. Examination of texts from variety of locales, with particular emphasis on Japan. S/U or letter grading.

277. Caribbean Literature from Negritude to Diaspora. (4) Seminar, three hours. Historical approach to modern Anglophone and Francophone Caribbean literature, retracing search for cultural identity, beginning with negritude movement’s claim to Africa as expressed in Aimé Césaire’s declaration d’un retour au pays natal and ending with consideration of dispersion of identities in work of writers and intellectuals who contend with problem of diasporic Caribbean culture. S/U or letter grading.

278. India: Literature and Culture of Modern South Asia. (5) Seminar, three hours. Survey of significant issues in history of 20th-century Indian literature and culture. Great works of modern Indian culture by such figures as Rabindranath Tagore, Satyajit Ray, Faiz Ahmed Faiz, and U.R. Ananthamurthy, 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 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 textualizations in historical 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 dialog 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 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. Designed for graduates with proper language preparation. Introduction to principles of literary translation hermeneutically, that is, on basis of texts participating students translate, and presentation of student translation. 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; tutorial, one hour. Preparation: solid reading knowledge of at least one foreign language. Designed for graduate social sciences students. Techniques students 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 their professional culture. S/U or letter grading.

287. Reading across Culture. (5) Seminar, three hours. What is it we do when we understand words, habits, gestures, and beliefs not our own? Do we understand something foreign to us by immersing ourselves in it or by standing apart? Does understanding something foreign to us require a universal standpoint? Can we make judgments about beliefs other than our own? Questions of cultural interpreta-
tion have long history in both Western and non-Western cultures. Discussion of history of questions about cross-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, Gayatri Spivak, and Erich Auerbach.

Concurrently scheduled with course C187. S/U or letter grading.

M288. Modern Arab Thought. (4) (Same as Arabic M288.) Seminar, three hours. While much has been written and said about resurgence and spread of political Islam in the wake of 9/11, ideology of secular nationalism and failure of Arab left to apprehend exigencies of postrevolutionary/postcolonial moment, little has been devoted to less sensational topic of modern Arab thought. Discussion of role and use of critical writing in political and cultural struggle produced by Arab thinkers and artists in aftermath of 1967. Course addresses and reconsiders 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 approaches to unlikely coexistence in Arab contemporary of ever-deepening and generalized crisis of and steady and consolidated development (if not effacement) of cultural and artistic production. S/U or letter grading.

289. Theory of Film and Literature. (8) 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, psychoanalysis, semiotics, transnationalism, gender theory). S/U or letter grading.

290. Contemporary Theories of Criticism. (4) Seminar, three hours; Requisite: course 200A. Advanced course in theory of literature focusing on structuralist, psychoanalytic, and Marxist approaches. S/U or letter grading.


292. Theories of Empire. (4) Seminar, three hours. History 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.

M294. Seminar: Literary Theory. (5) (Same as English M270.) Seminar, three hours. Advanced interdisciplinary seminar exploring philosophical, historical, and critical foundations of literary theory as well as current issues in literary and cultural studies. S/U or letter grading.

299. Aesthetics and Literature. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of literary theory through exploration of approaches to literature by philosophers focused on analytic tradition. Careful attention to concepts of truth, meaning, expression, representation, metaphor, fiction, 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 under active guidance and supervision of regular faculty member responsible. Current methods 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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Xinshu Grace Xiao, PhD (Integrative Biology and Physiology)
Xia Yang, PhD (Integrative Biology and Physiology)

Scope and Objectives

The major in Computational and Systems Biology is designed primarily for highly motivated undergraduate students interested in interdisciplinary studies in life sciences, behavioral sciences, and engineering and computer sciences. Preparation for the major consists of a broad foundation in basic sciences—chemistry, biology, physics, and mathematics, plus an introduction to computing. The major itself provides students with the interdisciplinary understanding. Each concentration provides students with the computational aspects of genetics, bioinformatics, biomedical systems, computers and biosystems, neurosystems, or systems biology.

The major is appropriate preparation for employment or for graduate studies in any of these areas, with emphasis on interdisciplinary activities. It is also appropriate preparation for professional school studies in dentistry, engineering, management, medicine, and public health.

Undergraduate Study

The Computational and Systems Biology major is a designated capstone major. The capstone experience is a senior-level sequence of two courses integrating the discipline via mathematical modeling, simulation, and active research and report writing. Students are expected to demonstrate critical thinking skills and familiarity with research techniques needed to successfully pursue a research project in computational and systems biology, conceive and execute a research project on which they engage current methods and theory, communicate original scholarly findings to peers both in oral and written form, and work productively with others as part of a research team. The experience culminates with completion of the senior thesis requirement.

Computational and Systems Biology majors select a coherent integration of courses from one of five designated concentrations: bioinformatics, biomedical systems, computers and biosystems, neurosystems, or systems biology. The major is appropriate preparation for employment or for graduate studies in any of these areas.

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ple research problems include finding statistical patterns that reveal genomic or evolutionary or developmental information, or how regulatory sequences 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 designed for students interested primarily in computer hardware, software, data management, data representation, graph theory, computational algorithm, or artificial intelligence applications in biological sciences, medicine, or pharmacology. Research problems are typically algorithm oriented and/or involve graphs, automata, or software development. 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 automating complex biosystem modeling tasks.

The systems biology 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, neural information and control systems, and systems electrophysiology and neural electronic systems for controlling prostheses. Example research problems include analysis of (real) neural networks in normal and abnormal brain function, design of prosthetic systems for hearing (cochlear implant) and walking (spinal cord stimulation) recovery, and MEMS-based brain-machine interface devices.

The systems biology concentration is designed for students who want to understand biological systems holistically and quantitatively, and pursue research with an emphasis on systems and integrative principles in biology or medicine. The curriculum imparts an understanding of systems biology (often called the new physiology) using dynamical systems modeling, control, computer simulation, and other computational methods—integrated with the biology. For example, at the cellular level, systems biologists integrate proteomic, transcriptomic, and metabolomic information into a more complete systems picture of living organisms. However, the methodologies include single-scale or multiscale modeling for enhancing understanding of regulatory biomechanisms at all levels—molecular, cellular, organ, and/or whole-organism levels—and are prevalent in population and ecosystem studies, as well as systems-level problems in medicine and pharmacology.

Computational and Systems Biology BS

Learning Outcomes
The Computational and Systems Biology major has the following learning outcomes:

- Demonstrated critical thinking skills, and familiarity with research techniques, needed to successfully 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

Admission
Admission to the major is by petition only and is based on successful completion of all preparation for the major courses and requirements (2.7 grade-point average in mathematics, 2.7 GPA overall, and a minimum grade of C in each preparation for the major course).

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 UCLA students need to file a petition with the Undergraduate Advising Office in 2329 Life Sciences Building.

All students are identified as premajors until they satisfy the preparation for the major requirements by (1) achieving a minimum 2.7 grade-point average (GPA) in all premajor mathematics courses, (2) achieving a minimum 2.7 GPA and a minimum grade of C in all premajor courses, and (3) filing a petition to declare the Computational and Systems Biology major.

Preparation for the Major
Required: A minimum of 82 to 96 units (depending on the computer programming course and physics sequence selected), including Chemistry and Biochemistry 20A, 20B, and 20L or 14A, 14B, and 14BL; Computer Science 31 or Program in Computing 10A; Life Sciences 40; Mathematics 31A, 31B, 33A, 33B, 115A; Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH or Physics 5A, 5B, and 5C; Electrical and Computer Engineering 1 may be substituted for Physics 1C, 1CH, or 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 or the computers and biosystems concentration must also complete Computer Science 32 or Program in Computing 10B or 16.

Students following the bioinformatics concentration, or biomedical systems concentration computers and biosystems concentration, or systems biology concentration must also complete Mathematics 32A.

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.

A recommended four-year course planner is available in the Undergraduate Advising Office in 2329 Life Sciences Building.

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), a concentration of five upper-division courses (20 units minimum), and a two-course capstone research requirement (9 units). 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: Statistics 100A or Mathematics 170A or Electrical and Computer Engineering 131A and Statistics 100B or Biostatistics 100A.

Concentrations
Required: A minimum of five courses (20 to 30 units) 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 10B or 16, and Mathematics 32A are completed in the premajor.

Biomedical Systems (at least 20 units): Bioengineering CM102, CM103, Electrical and Computer Engineering 133A (or Mathematics 151A), and two additional courses from the biomedical systems approved course list. Note: Mathematics 32A is completed in the premajor.

Computers and Biosystems (at least 20 units): Bioengineering CM102 (or CM103 or Molecular, Cell, and Developmental Biology M140 or 144 or Physiological Science 166), Computer
Science 170A (or Electrical and Computer Engineering 133A or Mathematics 151A), 180, and two additional courses from the computer and biosystems approved list. Note: Computer Science 32 or Program in Computing 10B or 16, and Mathematics 32A are completed in the premajor.

Neurosystems (20 units): Neuroscience M101A, M101B, 102 (or Electrical and Computer Engineering 113 or Mathematics 155), and two additional courses from the neurosystems approved list.

Systems Biology (at least 20 units): Ecology and Evolutionary Biology 170 (or Physiological Science 166), Molecular, Cell, and Developmental Biology 100 (or 144), 172 (or Physiological Science 125), and two additional courses from the systems biology approved list. Note: Mathematics 32A is completed in the premajor.

Capstone Research Requirement
Required: Computational and Systems Biology M186 to be taken in the junior or senior year and M187 to be taken in the junior or senior year after completion of course M186.

Honors Program
Students with a grade-point average of 3.5 or better in required major courses and a 3.0 cumulative GPA may apply for admission to the honors program. Honors or highest honors may be granted at the discretion of the faculty sponsor and the faculty committee to students demonstrating exceptional ability on the senior research thesis.

Mathematical Biology Minor
The Mathematical Biology minor introduces undergraduate students to an active interdisciplinary research field at UCLA. The minor core examines biological systems in a holistic and quantitative manner by emphasizing systems and integrative principles in biology. Students who complete the minor have sufficient training to apply the knowledge they learn in graduate school or employment of their choice. Students complete a core curriculum and an elective course. The minor consists of lower-division courses basic to the minor and four core courses and one option course that provide the needed background in mathematical biology, molecular and cell biology, statistics and probability, and mathematical modeling and simulation methods for biological systems. To enter the minor, students must (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.

Structural Biology Minor
The Structural Biology minor introduces undergraduate students to an active interdisciplinary research field at UCLA. It examines biological systems in a holistic and quantitative manner by emphasizing systems and integrative principles in biology 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.

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Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Computational and Systems Biology

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. 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

M175. Stochastic Processes in Biochemical Systems. (4) (Same as Chemistry M186.) Lecture, three hours. Requisites: Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C; 30B or Mathematics 33B, Electrical and Computer Engineering 131A or Mathematics 170A or Statistics 100A. Covers random and stochastic processes in play in biochemical systems, including ion channels, cytoskeleton, cell migration and mitosis, gene expression networks, and signal transduction. Covers mathematical tools such as continuous and discrete Markov processes, first passage, time escape problems, statistical mechanics, and information theory. Letter grading.

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 31B or 31B. Survey course designed to introduce students to computational and systems modeling and computation in biology and medicine, providing motivation, flavor, and cut-edge contributions in computational biology and aiming for more informed basis for focused studies by students with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology research. P/NP grading.

M185. Research Opportunities in Computational and Systems Biology. (4) (Same as Computer Science M185.) Lecture, two hours; discussion, two hours; outside study, four hours. Enforced requisites: course M184, Mathematics 32B, 33A, 33B, Life Sciences 4. Introduction to interdisciplin ary 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 members and student visits to individual laboratories and participation in ongoing projects. P/NP or letter grading.

M186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Bioengineering CM186, Computer Science CM186, and Biology and Evolutionary Biology M178.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic biosystems modeling and computer simulation methods for studying biological systems and systems at multiple levels of organization. Control system, multicomponent, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismic levels. Both theory and data-driven modeling, with focus on translating biomodeling goals and data into 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.

180. 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.


Computer Science

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Alessandro Warth, 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 intelli-
tions. 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 BS 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 MS and PhD 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 MS 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 4AL 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); 4 units of elective courses selected from Electrical and Computer Engineering 101A through 187; 12 units of elective courses selected from Computer Science 100 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. Four units of either Computer Science 194 or 199 may be applied as an elective by petition.

For information on UC, school, and general education requirements, see the College and Schools chapter.

Computer Science BS

Capstone Major

The Computer Science curriculum is designed to accommodate students who want professional preparation in computer science but do not necessarily have a strong interest in computer systems hardware. The curriculum consists of components in computer science, a minor or technical support area, and a core of courses from the social sciences, life sciences, and humanities. Within the curriculum, students study subject matter in software engineering, principles of programming languages, data structures, computer architecture, theory of computation and formal languages, operating systems, distributed systems, computer modeling, computer networks, compiler construction, and artificial intelligence. Majors are prepared for employment in a wide range of industrial and business environments.

Learning Outcomes

The Computer Science major has the following learning outcomes:

• Application of basic mathematical and scientific concepts that underlie the modern field
• Design of a software or digital hardware system, component, or process to meet desired needs within realistic constraints
• Function productively with others on a team, including those with different specialties within the field
• Identification, formulation, and solution of computer software- and hardware-related engineering problems
• Effective communication

Preparation for the Major

Required: Computer Science 1, 31, 32, 33, 35L, 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; 20 units of elective courses selected from Computer Science 100 through CM187; 12 units of science and technology courses (not used to satisfy other requirements) that may include 12 units of 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 only if it is not taken as the capstone course. 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 science and
the technology requirement or as part of the technical breadth area. Four units of either Computer Science 194 or 199 may be applied as an elective by petition.

For information on UC, school, and general education requirements, see the College and Schools chapter.

Computer Engineering BS

Capstone Major

The undergraduate curriculum provides all computer engineering students with preparation in the mathematical and scientific disciplines that lead to a set of courses that span the fundamentals of the discipline in the major areas of data science and embedded networked systems. These collectively provide an understanding of many inventions of importance to our society, such as the Internet of Things, human-cyber-physical systems, mobile/ wearable/implantable systems, robotic systems, and more generally smart systems at all scales in diverse spheres. The design of hardware, software, and algorithmic elements of such systems represents an already dominant and rapidly growing part of the computer engineering profession. Students are encouraged to make use of their computer science and electrical and computer engineering electives and a two-quarter capstone design course to pursue deeper knowledge within one of these areas according to their interests, whether for graduate study or preparation for employment.

Learning Outcomes

The Computer Engineering major has the following learning outcomes:

• Application of mathematical, scientific, and engineering knowledge
• Design of a software or hardware system, component, or process to meet desired needs within realistic economic, environmental, social, ethical, health, safety, security, reliability, manufacturability, and sustainability constraints
• Function productively on a team with others
• Identification, formulation, and solution of computer engineering problems
• Effective communication

Preparation for the Major

Required: Computer Science 1 (or Electrical and Computer Engineering 1), 31, 32, 33, 35L, M51A (or Electrical and Computer Engineering 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.

Students complete a core curriculum and an elective course and are strongly encouraged to participate in undergraduate research as early as possible in one of the many groups offering research opportunities in bioinformatics.

To enter the minor, students must be (1) in good academic standing (2.0 grade point average or better), (2) have completed at least two of the lower-division requirements with minimum grades of C, and (3) file a petition in the Office of Academic and Student Affairs, 6426 Boelter Hall.

Required Lower-Division Courses (14 units minimum): Computer Science 32 or Program in Computing 10C, Life Sciences 3 or 7A, 23L, Mathematics 33A.

Required Upper-Division Courses (18 units minimum): Computer Science 180 (or Mathematics 182), M184, two courses selected Computer Science CM121, CM122, and CM124, and one course selected from Chemistry and Biochemistry C100, 153B, Civil and Environmental Engineering 110, Computer Science CM121, CM122, CM124, 170A, CM186, CM187, Ecology and Evolutionary Biology 135, Electrical and Computer Engineering 102, 131A, 141, Human Genetics C144, Mathematics 170A, Microbiology, Immunology, and Molecular Genetics 132, 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 major requirements or another minor, then no other course from that set may be applied toward the minor requirements.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

All minor courses must be taken for a letter grade (unless not offered on that grading basis), and students must have a minimum grade of C– in each and an overall C (2.0) grade-point average in all courses taken for the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Computer Science offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Computer Science. A concurrent degree program (Computer Science MS/Management MBA) is also offered.

Bioinformatics

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, 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 Bioinformatics. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culuminating 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.

112. Modeling Uncertainty in Information Systems. (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.


35L. Software Construction Laboratory. (3) Laboratory, four hours; outside study, five hours. Requisite: course 31. Fundamentals of commonly used software tools and environments, particularly open-source tools to be used in upper-division computer science courses. Letter grading.

5M1A. Logic Design of Digital Systems. (4) (Same as Electrical Engineering 119.) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to digital systems. Specification and implementation of combinational and sequential logic circuits. Use of programmable logic arrays. Specification and implementation of algorithmic systems: data and control sections. Number systems and arithmetic algorithms. Error control codes for digital information. Letter grading.

97. Student Research Program. (1 to 2) 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

111. Operating Systems Principles. (5) Lecture, four hours; laboratory, two hours; outside study, nine hours. Enforced requisites: courses 32, 33, 35L. Introduction to operating systems design and evaluation. Letter grading.
logic—programming—by prototyping implementations of languages in each. Analysis of prototypes to shed light on design and structural properties of each language and paradigm and to allow easy comparison against one another. Hands-on experience implementing new abstractions, both as stand-alone languages and as libraries in existing languages. Concurrently scheduled with course C237A. Letter grading.

C137B, Programming Language Design, (4) Seminar, 3 hours; outside study, eight 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 despite trend in computing toward ever higher levels of abstraction for programming. Hands-on experience designing, prototyping, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course 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 implementing them. 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 privacy, XML, and web services. 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 visualization of data mining application areas such as bioinformatics, e-commerce, environmental studies, financial markets, multimedia data processing, network monitoring, and social service analysis. Letter grading.

M146. Introduction to Machine Learning, (4) (Same as Electrical and Computer Engineering M146.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Civil and Environmental Engineering M131A or Mathematics 170A or Statistics 100A. Introduction to basic concepts in artificial intelligence and machine learning. Extensive coverage of methods for numeric and symbolic computation, matrix algebra, statistics, floating point, and other mathematical topics. Letter grading.

M151B. Computer Systems Architecture, (4) (Same as Electrical and Computer Engineering M151B.) 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, central processor registers, input/output devices, instruction set architecture, input/output devices, internal design of computer systems, input/output devices, computer networks, components, and networks. Letter grading.

M152A. Introductory Digital Design Laboratory. (2) (Same as Electrical and Computer Engineering M16L.) Laboratory, four hours; outside study, two hours. Enforced requisite: course M51A or Electrical and Computer Engineering M16. Hands-on experience implementing, and debugging of digital logic circuits, use of computer-aided design tools for schematic capture and simulation, implementation of complex circuits using programmed array logic design tools. Letter grading.

152B. Digital Design Project Laboratory, (4) Laboratory, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course M151B or Electrical Engineering M116C. Recommended: Engineering M126A or to seniors. Design and implementation of complex digital subsystems using field-programmable gate arrays (e.g., processors, microcontrollers, 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 problem solving and knowledge representation paradigms of artificial intelligence. Introduction to Lisp with regular programming assignments. State-space and problem reduction methods, brute-force and heuristic search, planning techniques, and other models. Knowledge representation including predicate logic, production systems, semantic nets and primitives, frames, scripts. Special topics in natural language processing, expert system, vision, and parallel architectures. Letter grading.

168. Computational Methods for Medical Imaging, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 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 implementation of fundamental methods for medical imaging including angiography, computed tomography (CT), and magnetic resonance (MR). Project-based course covers applied topics in medical imaging including image processing, atlasing, predictive modeling, personalized medicine, and driver and medical learning methods. Letter grading.


M171L. Data Communication Systems Laboratory, (2-4) (Same as Electrical and Computer Engineering M171L.) Laboratory, four to eight hours; outside study, two to four hours. Recommended prerequisite: course M152A. Letter graded. Letter grading.

171M. Communication Systems Laboratory, (2-4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course M151M. Introduction to signal processing for communication systems. Topics include communication theory and information theory, modern communication systems, signal processing, and communication systems. Letter grading.

172. Real-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 in real-time three-dimensional animation. Students will design and implement graphics engines to create cinematic productions. Focus on highest quality productions to qualify and submit products to Student Academy Awards competition. Use of Unity Game Engine to make technical decisions to adapt stories to games. Introduction to interaction concepts, enabling students to create interesting and believable characters and environments. Computer graphics, three-dimensional animation, and to concepts in artificial intelligence, enabling them to refine their interfaces to create high-fidelity real-time three-dimensional animation. 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 computer graphics. Introduction to 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 geometry 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 the radiosity and illumination models, and light mapping. Letter grading.

174B. Introduction to Computer Graphics: Three-Dimensional Photography and Rendering, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. State of art in three-dimensional photography and image-based rendering. How to use cameras and light to create shape and appearance of objects and scenes. Process provides simple way to acquire three-dimensional models of unparalleled detail and realism. Applications of techniques from entertain ment (reverse engineering of sets and 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). fundamentals of modeling and rendering geometrical shapes and photometric (reflectance, illumination) properties of objects and scenes, and of rendering using antialiasing. Letter grading.

C174C. Computer Animation, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. Designed for juniors/seniors. Introduction to computer animation, including basic principles of character modeling, forward and inverse kinematics, forward and inverse dynamics, motion capture animation techniques, physics-based animation of particles and systems, and motor control. Concurrently scheduled with course C274C. Letter grading.


M182. Systems Simulatior and Simulation Basics, (4) (Same as Bioengineering M182.) Lecture, three hours; discussion, one hour; laboratory, two hours; outside study, six hours. Enforced requisite: Mathematics 3B, 31B, or Life Sciences 30B. Recommended prerequisite: Mathematics 3C, 32A, or Computer Science 30B. Designed for undergraduate students in life sciences and engineering. Introduction to explicit mod-
tering and simulation of dynamic biological systems. Presentation of how biology, biochemistry, and physiology underlying dynamic systems modeling are transformed into system diagrams and graphs for refining conceptual understanding of their form and function. On completion of this course, students formulate basic conservation and mass action laws and feedback concepts, are further transformed into first-order differential equations, and are implemented in simulation diagrams. "Closely directed, in interdisciplinary laboratory research methods and recent literature in field or of research group. Discussion of research topics in computer science. May be repeated for credit. Letter grading.

192A. Learning Assistant Pedagogy. (1 to 4) Seminar, one hour; outside study, 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. Letter grading.

194. Research Group Seminars: Computer Science. (4) Seminar, four hours; outside study, eight hours. Enforced requisites: course 118. Focus on mastering existing computer science tools: middleware, file system, services, and applications. (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; outside study, eight hours. Designed for graduate computer science and electrical engineering students. Methodologies and technologies for design of embedded systems. Topics include hardware design, software development, and instruction sets: one course from 31, Civil Engineering M20, Mechanical and Aerospace Engineering M20, or Program in Computing 10A, and Mathematics 3B or 31B. Survey course designed to introduce students to computer architecture, compiler design, and computer-aided design in biology and medicine, providing motivation, flavor, culture, and cutting-edge contributions in computational biosciences and aiming for more informed basis for science students with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology research. P/NP grading.

M184. Introduction to Computational and Systems Biology. (2) (Same as Bioengineering M184 and Computational and Systems Biology M184.) Lecture, two hours; outside study, four hours. Enforced requisites: one course from 31, Civil Engineering M20, 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 biology topics, focusing on methods and computational biology of faculty members or students. May be repeated for credit. Letter grading.

199. Directed Research in Computer Science. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cullumining paper or project required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Administrative Affairs. 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. Enforced requisites: three hours; outside study, eight hours. Recommended: statistics and probability, and computer science. Current computer science research topics in computer science. 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, and computer science. Basics of numerical simulation algorithms/networks), organ, and organismic levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into mathe- matical models and/or simulating 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 180. Lecture, four hours; outside study, eight hours. Requisite: course 180. Closely directed, in ...


217A. Internet Architecture and Protocols. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: course 118. Focus on mastering existing core Internet protocols, including IP core trans- port protocols, routing protocols, DNS, NTP and secu- rity protocols such as DNSSEC, to understand principles behind design of these protocols, appreciate their design tradeoffs, and learn lessons from their operations. Letter grading.

217B. Advanced Topics in Internet Research. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: course 217A. Designed for graduate students. Overview of Internet protocols, including TCP/IP protocol, Internet, and fundamental principles underlying TCP/IP protocol design. Discussion of current Internet research topics, including latest research results in routing pro- tocols, transport protocols, network measurements, network security protocols, and clean-slate approach...
to network architecture design. Fundamental issues in networked protocol design and implementations. Letter grading.

218. Advanced Computer Networks. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Prerequisites: course 110C or equivalent, and seven of the following: six hours from list of seven-lab ISO-OSI model. High-speed networks, LANs, MANs, ATM. Flow and congestion control; bandwidth allocation. Interseting. Letter grading.

219. Current Topics in Computer System Modeling and Analysis. (4) Lecture, four hours; outside study, six hours. Review of current literature in area of computer system modeling in which instructor has developed special proficiency as consequence of research. Topics to be selected from list below. May be repeated for credit with consent of instructor. Letter grading.

CM221. Introduction to Bioinformatics. (4) (Same as Bioinformatics M221, Chemistry CM260A, and Human Genetics M260A.) Lecture, four hours; discussion, six hours. Requirements: Review of current literature in area of computer system modeling in which instructor has developed special proficiency as consequence of research. Topics to be selected from list below. May be repeated for credit with consent of instructor. Letter grading.

CM222. Algorithms in Bioinformatics. (4) (Same as Bioinformatics M222 and Chemistry CM260B) Lecture, four hours; discussion, two hours. Requirements: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Course focuses on bioinformatics and related areas, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment. Course is concurrently scheduled with course CM121. Letter grading.

CM223. Introduction to Bioinformatics. (4) (Same as Bioinformatics M223 and Chemistry CM260C) Lecture, four hours; discussion, two hours. Requirements: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Course focuses on bioinformatics and related areas, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment. Course is concurrently scheduled with course CM121. Letter grading.

CM224. Computational Genetics. (4) (Same as Bioinformatics M224 and Human Genetics CM260D) Lecture, four hours; discussion, two hours. Requirements: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. 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 these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM122. Letter grading.

M225. Computational Methods in Genomics. (4) (Same as Bioinformatics M225 and Human Genetics M265) Lecture, two and one-half hours; discussion, two and one-half hours; outside study, seven hours. Introduction to computational approaches in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary 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 technologies. Computational techniques and methods include those from statistics and computer science. Letter grading.

M226. Machine Learning in Bioinformatics. (4) (Same as Bioinformatics M226 and Human Genetics M266) Lecture, four hours; discussion, eight hours. Enforced requisite: course 32 or Program in Computing 10C with grade of C– or better. Required: one from Biostatistics 100A, 110A, 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 current topics in bioinformatics and computational genomics and formation of a computational and statistical techniques to analyze biological data. Course is concurrently scheduled with course CM121. Letter grading.

M229S. Seminar: Current Topics in Bioinformatics. (4) (Same as Biological Chemistry M229S and Human Genetics M229S) Lecture, four hours; discussion, eight hours. Designed for graduate engineering students as well as students from biological sciences and medical school. Introduction to current topics in bioinformatics and computational genomics and formation of a computational and statistical techniques to analyze biological data. Course is concurrently scheduled with course CM121. Letter grading.

M230. Software Engineering. (4) Lecture, four hours; discussion, two hours. Recommended preparation for undergraduate students: prior software engineering course. Required preparation for graduate students: undergraduate-level knowledge of data structures and object-oriented program languages. As software systems become increasingly large and complex, automated software engineering analysis and development tools play important role in various software engineering tasks, such as design, construction, evolution, and testing of complex software systems. Introduction to foundations, techniques, tools, and applications of automated software engineering technology. Development, extension, and evaluation of software engineering tools and assessment of how tool fits into software development process. Introduction to current research topics in automated software engineering. Letter grading.

M231. Introduction to Static Analysis of Object-Oriented Programs. (4) Lecture, four hours; discussion, two hours. Enforced requisite: course C137A. Letter grading.

C237A. Prototyping Programming Languages. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course C131. How different programming language paradigms provide dramatically different ways of thinking about computational tasks and software design. Introduction to research literature in programming languages and design of new programming languages. Letter grading.

C237B. Programming Language Design. (4) Seminars: four hours; outside study, eight hours. Enforced requisite: course C237A. Study of various programming languages and their designs and history and research literature, that attempt to address problems of software systems that are bloated, buggy, and difficult to maintain.

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cuit to maintain and extend despite trend in computing toward ever higher levels of abstraction for programming. Hands-on experience designing, prototyping, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course C137B. Letter grading.

239. Current Topics in Computer Science: Programming Languages and Systems (2 to 12) Lecture, four hours; study, eight hours. Review of current literature in area of computer science programming languages and systems in which instructor has developed special proficiency as consequence of research conducted in the past three years. May be repeated for credit with topic change. Letter grading.

240A. Databases and Knowledge Bases (4) Lecture, four hours; outside study, eight hours. Requisites: courses 143, Theoretical and technological foundation of Intelligent Database Systems, that merge database technology, knowledge-based systems, and advanced programming environments. Rule-based knowledge representation, spatio-temporal reasoning, and implementation of declarative query/projection algorithms are salient features of this technology. Other topics include object-relational systems and data mining techniques. Letter grading.

240B. Advanced Data and Knowledge Bases (4) Lecture, four hours; study, eight hours. Requisites: courses 143, 240A. Logical models for data and knowledge representations. Rule-based languages and nonmonotonic reasoning. Temporal queries, spatial queries, deductive databases, and object relational databases (ORDBs). Abstract data types and user-defined column functions in ORDBs. Data mining algorithms. Semistructured information. Letter grading.

241B. Pictorial and Multimedia Database Management (4) Lecture, three and one half hours; discussion, 30 minutes; laboratory, one hour; outside study, seven hours. Requisites: course 143 or 143A. Multimedia data: alphanumeric, long text, images/pictures, video, and voice. Multimedia information systems requirements. Data models. Searching and accessing databases and multimedia Internet by alphanumeric, image, video, and audio content. Querying, visual languages, and communication. Database design and organization. Logical and physical. Indexing methods. Internet multimedia streaming. Other topics at discretion of instructor. Letter grading.

244A. Distributed Database Systems (4) Lecture, four hours; outside study, eight hours. File allocation, intelligent directory design, transaction management, deadlock detection, concurrency control, consistency modules, commit protocols, semantic query answering, multi-database systems, fault recovery techniques, network partitioning, example, trade-offs, and design experiences. Letter grading.

245. Big Data Analytics (4) Lecture, four hours; outside study, eight hours. Requisites: courses 143 or 180 or equivalent. With unprecedented rate at which data is being collected today, almost all fields of human endeavor, there is emerging economic and scientific need to extract useful information from it. Data analytics is process of automatic discovery of patterns, changes, associations, and anomalies in massive data sets using highly interactive field representing confluence of several disciplines, including database systems, data warehousing, data mining, machine learning, econometrics, 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 bioinformatics, E-commerce, social media analytics, 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. Scale of Web data requires novel algorithms and principles for their management and retrieval. Study of Web characteristics and new management techniques needed to build computer systems suitable for Web environment. Topics include Web mea-
263A. Language and Thought. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 131 or 161. Introduction to natural language processing (NLP), with emphasis on semantics. 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. Letter grading.

263C. Animats-Based Modeling. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 131 or 161. Animats are mobile/sensing animal-inspired organisms in dynamic environments. Emphasis on modeling: goal-oriented behavior via neurocontrollers, adaptation via reinforcement learning, evolutionary programming. Animat-based tasks include foraging, maze-solving, predation, predator avoidance, cooperative nest construction, communication, and parenting. Letter grading.

264A. Automated Reasoning: Theory and Applications. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course 161. Introduction to theory and practice of automated reasoning using propositional and first-order logic. Topics include semantics of formal logic; algorithms for logical reasoning, including satisfiability and entailment; syntactic and semantic restrictions on knowledge bases; effect of these restrictions on expressiveness, complexity, and computational feasibility; applications of automated reasoning to diagnosis, planning, design, formal verification, and reliability analysis. Letter grading.


267A. Probabilistic Programming and Relational Machine Learning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. Introduction to computer animation, including basic principles of character, modeling, and inverse kinematics, forward and inverse dynamics, motion capture animation, physics-based animation of particles and systems, and motor control. Coverage of advanced topics and current research in computational neuroscience, connectionism as paradigm for parallel and concurrent computation. Problems of per- ception, vision, motor control, sensory integration, and robotics. May be repeated for credit. S/U or letter grading.

268. Seminar: Current Topics in Artificial Intelligence. (2) Seminar, to be arranged. Review of current literature and research in artificial intelligence in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.

274C. Computer Animation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. Introduction to computer animation, including basic principles of character, modeling, and inverse kinematics, forward and inverse dynamics, motion capture animation, physics-based animation of particles and systems, and motor control. Coverage of advanced topics and current research in computational neuroscience, connectionism as paradigm for parallel and concurrent computation. Problems of perception, vision, motor control, sensory integration, and robotics. May be repeated for credit. S/U or letter grading.

280A-280ZZ. Topics in Automata and Languages. (4 each) (Same as Mathematics M208A-M208B.) Lecture, four hours; discussion, two hours; outside study, eight hours. Concurrently scheduled with course C174A. Subtitles of each offering announced in advance by department. May be repeated for credit. S/U grading.

282A. Cryptography. (4) (Same as Mathematics M209A.) Lecture, four hours; outside study, eight hours. Introduction to cryptography, stressing rigorous definitions and proofs of security. 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, secret-sharing, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, key-agreement, contract signing, and two-party secure computation with static security. Letter grading.

282B. Cryptographic Protocols. (4) (Same as Mathematics M209B.) Lecture, four hours; outside study, eight hours. Requisite: course 282A. Consideration of advanced and current topics in cryptography and cryptanalysis. Topics include noninteractive zero-knowledge proofs; zero-knowledge arguments; concurrent and post-quantum non-black-box zero-knowledge; IP=PSPACE proof, stronger notions of security for public-key encryption, including chosen-plaintext security; secure multiparty computation; dealing with dynamic adversary, non-malleability and composability of secure protocols; software protection; threshold cryptography; identity-based cryptography; private information retrieval; protection against man-in-the-middle attacks; voting protocols; identification protocols; digital cash schemes; lower bounds on use of cryptographic primitives, software obfuscation. May be repeated for credit with topic change. Letter grading.


284A-284ZZ. Topics in Automata and Languages. (4 each) Lecture, four hours; outside study, eight hours. Requisite: course 181. Additional requisites for each offering announced in advance by department. Selections from families of formal languages, grammars, machines, automata, pushdown automata, context-free languages and their generalizations, context-sensitive languages, grammars, strings, developmental systems; machine-based complexity. Subtopics include current and planned sections: Context-Free Languages (284A), Parsing Algorithms (284F). May be repeated for credit with consent of instructor and topic change. Letter grading.

285A. Functional Programming. (4) Lecture, four hours; outside study, eight hours. Requisite: course 181 or departmental consent. Concepts fundamental to study of discrete information systems and theory of computing, with emphasis on regular sets of strings, Turing-recognizable (recursively enu- merable) sets, closure properties, characterizations, nondeterminism, decidability, unsolvable problems, “easy” and “hard” problems, PTIME/NP-TIME. Letter grading.

286. Seminar: Computational Neuroscience. (2) Seminar, two hours; outside study, four hours. Envisioned for students undertaking a thesis research. Discussion of advanced and current research in computational neuroscience. Neural networks and connectionism as paradigm for parallel and concurrent computation. Topics include problems of perception, vision, motor control, sensory integration, and robotics. May be repeated for credit. S/U or letter grading.

288. Seminar: Current Topics in Artificial Intelligence. (4) Seminar, to be arranged. Review of current literature and research in artificial intelligence in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.


291. Introduction to Theory and Practice of Automated Reasoning. (4) Lecture, two hours; outside study, six hours. Requisite: course 161. Introduction to theory and practice of automated reasoning using propositional and first-order logic. Topics include semantics of formal logic; algorithms for logical reasoning, including satisfiability and entailment; syntactic and semantic restrictions on knowledge bases; effect of these restrictions on expressiveness, complexity, and computational feasibility; applications of automated reasoning to diagnosis, planning, design, formal verification, and reliability analysis. Letter grading.


292B. Cryptography. (4) (Same as Mathematics M209A.) Lecture, four hours; outside study, eight hours. Introduction to cryptography, stressing rigorous definitions and proofs of security. 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, secret-sharing, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, key-agreement, contract signing, and two-party secure computation with static security. Letter grading.

292B. Cryptographic Protocols. (4) (Same as Mathematics M209B.) Lecture, four hours; outside study, eight hours. Requisite: course 282A. Consideration of advanced and current topics in cryptography and cryptanalysis. Topics include noninteractive zero-knowledge proofs; zero-knowledge arguments; concurrent and post-quantum non-black-box zero-knowledge; IP=PSPACE proof, stronger notions of security for public-key encryption, including chosen-plaintext security; secure multiparty computation; dealing with dynamic adversary, non-malleability and composability of secure protocols; software protection; threshold cryptography; identity-based cryptography; private information retrieval; protection against man-in-the-middle attacks; voting protocols; identification protocols; digital cash schemes; lower bounds on use of cryptographic primitives, software obfuscation. May be repeated for credit with topic change. Letter grading.


294A-294ZZ. Topics in Automata and Languages. (4 each) Lecture, four hours; outside study, eight hours. Requisite: course 181. Additional requisites for each offering announced in advance by department. Selections from families of formal languages, grammars, machines, automata, pushdown automata, context-free languages and their generalizations, context-sensitive languages, grammars, strings, developmental systems; machine-based complexity. Subtopics include current and planned sections: Context-Free Languages (284A), Parsing Algorithms (284F). May be repeated for credit with consent of instructor and topic change. Letter grading.

295A. Functional Programming. (4) Lecture, four hours; outside study, eight hours. Requisite: course 181 or departmental consent. Concepts fundamental to study of discrete information systems and theory of computing, with emphasis on regular sets of strings, Turing-recognizable (recursively enumerable) sets, closure properties, characterizations, nondeterminism, decidability, unsolvable problems, “easy” and “hard” problems, PTIME/NP-TIME. Letter grading.

296. Seminar: Computational Neuroscience. (2) Seminar, two hours; outside study, four hours. Envisioned for students undertaking thesis research. Discussion of advanced and current research in computational neuroscience. Neural networks and connectionism as paradigm for parallel and concurrent computation. Topics include problems of perception, vision, motor control, sensory integration, and robotics. May be repeated for credit. S/U or letter grading.
mathematics models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with modeling software exercises in class and PC laboratory assignments. Concurrently scheduled with course CM186. Letter grading.

289S. Seminar: Theoretical Computer Science. (2) Seminar, two hours; outside study, six hours. Requisites: courses 280A, 281A. Intended for students undertaking thesis research. Discussion of advanced topics and current research in such areas as algorithms and complexity models for parallel and concurrent computation, and formal language and automata theory. May be repeated for credit. S/U grading.

289A–289ZZ. Current Topics in Computer Theory. (2 to 12 each) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer theory in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. Letter grading.

289CO. Complexity Theory. (4) Lecture, four hours; outside study, eight hours. Diagonalization, polynomial-time hierarchy, PCP theorem, randomness and de-randomization, circuit complexity, attempts and limitations to proving P does not equal NP, average-case complexity functions, hardness of approximation. Problem sets and presentation of previous and original research related to course topics. Letter grading.

289OA. Online Algorithms. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. Introduction to decision making under uncertainty and competitive analysis. Review of current research in online algorithms for problems arising in many areas, such as dynamic memory management, searching and navigating in unknown terrains, and server systems. Letter grading.

289RA. Randomized Algorithms. (4) Lecture, four hours; outside study, eight hours. Basic concepts and design techniques for randomized algorithms, such as probability theory, Markov chains, random walks, and probabilistic method. Applications to randomized algorithms in data structures, graph theory, computational geometry, number theory, and parallel and distributed systems. Letter grading.

M296A. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Bioengineering M296A and Medicine M270C.) Lecture, four hours; outside study, eight hours. Requisite: course M296B. Closely related, 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 aptitudes. Students discuss proposals and written progress reports explain how to proceed with search for research results. Major emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM187. Letter grading.

290. Research in Conservation and Computing in Computational and Systems Biology. (4) (Same as Bioengineering CM287.) Lecture, four hours; outside study, eight hours. Requisite: course CM286. Closely related, 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 aptitudes. Students discuss proposals and written progress reports explain how to proceed with search for research results. Major emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM187. Letter grading.

M296C. Advanced Topics and Research in Biomaterials and Biomechanics. (4) (Same as Bioengineering M296C and Medicine M270E.) Lecture, four hours; outside study, eight hours. Requisite: course M296B. Research techniques and experience on special topics involving mathematical models, modeling methods, and model/computing in biological and medical sciences. Review and critique of literature. Research problem searching and formulation. Appropriate to solutions. Individual MS and PhD-level project training. Letter grading.

M296D. Introduction to Computational Cardiology. (4) (Same as Bioengineering M296D.) Lecture, four hours; outside study, eight hours. Requisite: course CM186. Introduction to mathematical modeling and computer simulation of cardiac electrophysiological process. Ionic models of action potential (AP). Theory of AP propagation in one-dimensional and two-dimensional cardiac tissue. Simulation on sequential and parallel supercomputers, choice of numerical algorithms, to optimize accuracy and to provide computational stability. Letter grading.

298. Research Seminar: Computer Science. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate computer science students. Discussion of advanced topics and current research in algorithmic processes that describe and transform information: theory, analysis, design, efficiency, implementation, and application. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship in person-to-person and on-line programming employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, four hours; outside study, two hours. Limited to graduate Computer Science Department students. Seminar on being effective teaching assistant, including preparation, classroom presentation, encouraging interactive discussion, active learning, office hours, review sessions, making up and grading assignments, 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 on teaching as apprentices. Emphasis on teaching as apprentices. Students will be prepared to use technology to enhance teaching and learning. May be repeated for credit. S/U grading.

497D–497E. Field Projects in Computer Science. (4–4) Fieldwork, to be arranged. Students are divided into teams led by each instructor. Each team is assigned one external company or organization that they investigate as candidate for possible computerization, submitting team report of their findings and recommendations. In Progress (497D) and/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. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate computer science students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate computer science students. Supervised independent research for MS candidates, including thesis proposal. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate computer science students. Petition forms to request enrollment may be obtained from assistant dean. S/U grading.

Computing, Program in

Conservation of Archaeological and Ethnographic Materials

Interdepartmental Program in College of Letters and Science

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Los Angeles, CA 90095-1510

Consortium of Archaeological and Ethnographic Materials

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H. Pirouz Kavehpour, PhD (Bioengineering, Mechanical and Aerospace Engineering)
Peter B. Lunenfeld, PhD (Design/Media Arts)
William G. Roy, PhD (Sociology)
Lothar von Falkenhausen, PhD (Art History)

Scope and Objectives

The UCLA/Getty Conservation interdepartmental program provides an excellent platform for education and research in the conservation of material culture. It supports discovery and innovation through research that transcends the boundaries of traditional disciplines. It uniquely trains cultural property professionals in the best practices and methods of cultural heritage conservation through various pedagogical approaches including, but not limited to, core teaching and learning, independent research, and laboratory experience in museums and in the field. Finally, it positively impacts the community by engaging with a more informed public that would seek to protect cultural heritage from imminent threats.

The program offers two degree options: a practice-focused three-year MA degree in Conservation of Archaeological and Ethnographic Materials and a research-focused PhD
degree in Conservation of Material Culture. Though the two degrees share a scholarly approach to the diverse, plane and strong commitment to the advancement of the conservation profession, they provide distinctive competencies, preparing students for different careers in the cultural heritage section and beyond.

The aim of the program is to train the next generation of multidisciplinary researchers, heritage 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 are working to create rich and vibrant conservation training opportunities. The program helps students develop working relationships with a wide array of colleagues in the Getty Conservation Institute, the J. Paul Getty Museum, other local museums and cultural organizations, and different departments and programs at UCLA.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Conservation of Archaeological and Ethnographic Materials Program offers a Master of Arts (MA) degree in Conservation of Archaeological and Ethnographic Materials, and Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Conservation of Material Culture.

Conservation of Archaeological and Ethnographic Materials

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in 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 standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

C120. Field Methods in Archaeological Conservation: Readiness, Response, and Recovery. (4) Laboratory, four hours. Orientation to the field; viewing of sites; methods and holistic approaches to the conservation profession.


Graduate Courses


M210L. Cultural Materials Science Laboratory: Technical Study. (4) (Formerly numbered 210L.) (Same as Materials Science M213L.) Laboratory, four hours. Requisites: course M215 (or M216) and one course from 260 through 262; Corequisite: course M210 (or Materials Science C112 or CM212). Research-based, object-based, problem-solving approach in conservation methods science. Experimental techniques, characterization, and analysis of archaeological and ethnographic materials (using materials science principles and engineering processes) to determine technological features, defects, and products of alteration. Hands-on experience with novel imaging and spectroscopic techniques, sampling and sample preparation methods, analysis of microsamples. Letter grading.

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 and practical applications. Students gain better understanding of intrinsic properties of materials, mechanisms of degradation, and conser- vation treatments. General chemistry, physics, and physical chemistry (atomic structure bonding, etc.), fluid transfer in porous materials, diffusion, interfaces, surface tension, wetting, adsorption, adhesion, dissolution and crystallization, mechanical properties (properties/characterization), phase transformations (glass, metals, polymers). Letter grading.


C220. Field Methods in Archaeological Conservation: Readiness, Response, and Recovery. (4) Laboratory, four hours; lab-enriched tasks (dikes on digital photography, computer-aided recording tools, and scientific imaging to determine and document condi- tion (defects) and technological features of archaeo- logical and ethnographic materials, development of basic theoretical knowledge on imaging and pho- tonic technology and practical skills on conservation photo-documentation, analytical (forensic) photog- raphy, and advanced new imaging technologies. Letter grading.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Conservation of Archaeological and Ethnographic Materials Program offers a Master of Arts (MA) degree in Conservation of Archaeological and Ethnographic Materials, and Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Conservation of Material Culture.
conservation of cultural materials, illustrating how cultural materials may have been treated differently according to those values. Letter grading.

222. Conservation and Ethnography. (4) Laboratory, four hours. Designed for graduate conservation students. Introduction to work as conservators with indigenous repositories housing cultural collections. Students learn different models for tribal museums and cultural centers, and importance of material selection and conservation materials in baskets they are treating. Letter grading.

224. Issues in Preservation and Management of Archaeological and Cultural Sites. (4) Seminar, three hours. Designed to offer practical model of preservation and planning for heritage sites that reflect real case-study scenarios. Adaptive management planning following iterative processes for sustainable heritage preservation addressing threats and challenges such as climate change and global warming, conflicts, and neglect. Consideration of significance and value of heritage sites and role of stakeholders. Investigation of methods of evaluation of physical condition and development of risk assessment approaches to address physical risks in milieu of site preservation management, including visitors’ organization, urban development, socioeconomic growth, and tourism development. Letter grading.


239. Conservation Laboratory: Metals II. (4) Laboratory, four hours; outside study, eight hours. Requisites: courses 234, 235. Recommended: courses M210, M215. Conservation problems of metallic artifacts made of iron, steel, cast iron, gold, zinc, and aluminum that have some importance in ethnographic objects. Practical work on metallic artifacts. Letter grading.

240. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) (Same as Information Studies M238.) Lecture, two hours; laboratory, two hours. Requisite: Information Studies 432. Required of graduate conservation students. Review of environmental and biological agents of deterioration, including light, temperature, relative humidity, pollution, insects, and fungi. Emphasis on monitoring to identify agents and understanding of materials sensitivity, along with protective measures for collections. Letter grading.


242. Managing Collections for Museums, Libraries, and Archives. (4) Lecture, two hours; activity, two hours. Designed for graduate conservation students. How conservators work together with curators, collections managers, mount makers, designers, and registrars to permit collections to be both accessed and preserved. Concurrently scheduled with course C142. Letter grading.

250. Conservation Laboratory: Rock Art, Wall Paintings, and Mosaics. (4) (Same as Materials Science M215.) Laboratory, four hours. Requisites: courses M210 (or M216 or Materials Science C112), E101, E104, E215. Research-based laboratory on conservation of rock art, wall paintings (archaeological and modern composites on cements), mosaics, and decorated architectural surfaces. Examination of artifacts and analysis of materials (using materials science and reverse engineering processes) for characterization of technology, constituent materials, and alteration products; development of conservation treatment proposals; testing of conservation products, and methods and conservation treatment. Letter grading.


260. Structure, Properties, and Deterioration of Materials: Ceramics, Glass, Glazes. (2) Lecture, three hours. General introduction to different types of ancient ceramic and glass materials. Relationship between apparent and compositional characteristics (physical, chemical, and microstructural) and properties of ceramics, glass, glazes. Nature of fit and failure deterioration explained using basic concepts from physics and chemistry. Corrosion, defects, and products of alteration of ceramics and vitreous artifacts. Hands-on examination of variety of samples and artifacts. Letter grading.


265. Structure, Properties, and Deterioration of Materials: Organic Materials II. (2) Lecture, one hour; laboratory, one hour. General introduction to plant-based organic materials used to produce ethnographic and archaeological cultural heritage. Relationship between materials, processing, and properties of materials used in construction and decoration, such as focused materials studies, new conservation approaches, advanced scientific applications, or current special work by core program faculty or visiting scholars. If appropriate, field trips may be arranged. May be repeated for credit with topic or instructor change. Letter grading.

298. Special Topics in Conservation. (2 or 4) Lecture, three hours; laboratory, one hour. Special topics on theoretical and practical subjects in conservation such as focused materials studies, new conservation approaches, advanced scientific applications, or current special work by core program faculty or visiting scholars. Focused on special topics in conservation. Letter grading.

299. Conservation Program Internship. (6 or 12) Fieldwork, 20 or 40 hours. Open only to Conservation MA program graduate students who have completed first year of conservation program coursework. Supervised conservation-related professional and research-based training in field participation in field projects (i.e., archaeological excavation, site management, indigenous site preservation and consultation), as well as in museum, library, archive, and collections conservation and science departments, regional and national laboratories, or at other similar venues. All intern placements must be approved by program and developed in collaboration between student, faculty members, and host institution/agency, SU grading.

596. Directed Individual Studies. (2 to 6) Tutorial, seven hours. Limited to graduate conservation students. Individual guided studies that may include conservation research and/or surveys or treatment projects carried out at villa laboratories or at local collection or analytical facility. To be arranged with program faculty members, and supervision may be shared between faculty members and outside specialists. Letter grading.

598. MA Thesis Preparation. (2 to 12) Tutorial, two hours; laboratory, one hour. Development of research paper on conservation topic or treatment-based investigation that can be theoretical in scope or practically oriented. Letter grading.
DANCE
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DENTISTRY
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Los Angeles, CA 90095-1762

Dentistry
310-825-9789

Paul H. Krebsbach, DDS, PhD, Dean

Scope and Objectives
The UCLA School of Dentistry offers the following courses for general campus students. Dentistry 199 and 199H are individual special studies courses for UCLA undergraduates with definitive research interests and abilities applicable to dentistry. The subject areas include oral biology, clinical research, and dental health policy. Interested students should contact the associate dean of research at 310-825-6401 to obtain the names and areas of interest of participating School of Dentistry faculty members.

Dentistry
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
199. Individual Special Studies. (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required reading assignments or laboratory work leading to final oral or written examination. May be repeated for maximum of 16 units. P/NP or letter grading.

199H. Individual Special Studies (Honors). (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required paper submitted at end of course in addition to final examination (paper to be of publication quality as judged by course mentor). May be taken for maximum of 8 units. P/NP or letter grading.

Graduate Courses

441C. Introduction to Healthcare. (2) Lecture, two hours. Description and analysis of American dental care system from historical, ethical, and legal perspectives. Assessment of how dentistry fits within general provision of healthcare services in America, with comparisons to dental care provisions in other countries. S/U grading.

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Johanna R. Drucker, PhD (Martin and Bernard Breslauer Professor of Bibliography)
Erkki I. Hultamo, PhD
Willem Henri Lucas, BA
Peter B. Lunenfeld, PhD
Rebecca Mendez, MFA
Christian A. Moeller, Dipl–ING
Casey E.B. Reas, MS
Jennifer J. Steinkamp, MFA
Eddo I. Stern, MFA
Victoria Vesna, MFA, PhD

Professors Emeriti
James W. Bassler, MA
Robert A. Israel, MFA
Mitsuru Kataoka, MA
J. Bernard Kester, MA
Vasa V. Mihich

Associate Professor
Ramesh Srinivasan, PhD

Assistant Professors
Isa Hanes, 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 challenging programs invite students to balance aesthetic sensibility with logical reasoning, formal theories with practical application, and contemporary thought with historical perspective.

The undergraduate program begins with the study of basic design elements and processes: form, color, drawing, letterforms and typography, motion, and interactivity. Historical perspectives and social issues are also introduced. At the upper-division level, studio courses explore current uses of interactive media and new directions in visual communication design, including the study of time and motion, as well as virtual form and space in computer-generated environments. Through a balance of courses in theory, criticism, and practice, students develop an understanding of design principles. Most courses are taught as studios of no more than 22 students, which encourages individual growth and fosters a sense of community within the department.

The two-year Master of Fine Arts (MFA) program fosters mature, professional-quality work utilizing the most current technologies in the field of media arts. The program focuses on developing an individual thesis project that incorporates in-depth research and theoretical exploration of a topic, culminating in a final exhibition of work.

Facilities and equipment in the department enable students to create work in two, three, and four dimensions. They expand opportunities for students to develop interactive media applications in a networked environment and advanced computer graphics. The department includes computer laboratories with high-end PC and Macintosh computers and relevant software for the creation of works for print, web, video, and other media, a fabrication laboratory with equipment ranging from table saws to three-dimensional printers to a CNC machine to create physical objects combined with electronics, and a print laboratory with high-quality printers.

The Department of Design/Media Arts reserves the right to hold for exhibition purposes examples of any work done in classes and to retain for the permanent collection of its galleries such examples as may be selected.

Undergraduate Study
The Design/Media Arts major is a designated capstone major. Students are required to complete an advanced project of their own that entails full engagement with the design process. Through their capstone work, students demonstrate their capacities for research, ideation/concept development, creative and design direction, communication strategy, design, production/fabrication, and critical analysis. Capstone courses focus on career choice, and final projects are showcased at the spring senior show.

Design/Media Arts BA
Capstone Major

Learning Outcomes
The Design/Media Arts major has the following learning outcomes:

• Deep understanding of the field through immersion
• Exploration and development of ideas through listening to and observation of patterns
• Definition of an event and its surroundings and mise-en-scène, and the ethos of the student's idea
• Development of the specifics of a design
• Conceptualization of how an idea reaches its audience, how and when it launches, and how it stays relevant and vibrant
- Designed specifics of each element of the visual vocabulary—from graphic elements to photography, videography, and illustrations—including 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 159A, 159B, or 159C.

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 Lower-Division Courses
1. Graphic Design. (2) Studio, 30 hours. Limited to high school students. Basic and advanced photography skills using digital cameras. Alteration/manipulation of photos using techniques from latest version of Adobe Photoshop. Uploading of images on Web or in print. Production of digital and print portfolio of student work. Field trips to surrounding West Los Angeles locales to shoot photos. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.
2. Web Design. (2) Studio, 30 hours. Limited to high school students. How Web design works: basic hand coding and creation of personalized homepages with Macromedia Director and Flash software. Photograph scanning and manipulation of images in Adobe Photoshop to incorporate student Web designs. Critique of various Web pages to analyze successful use of Web design principles. Understanding of HTML and user navigation on 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, including Maya and Uni-ty3D. Creation of game projects that students exhibit and can use for college applications. Offered only as part of UCLA Game Lab Summer Institute. P/NP grading.
4. Audio Video Design. (2) Studio, 30 hours. Limited to high school students. Creation of nonverbal potential film for short documentary, commercial, or music video. Students shoot and edit their own work by learning fundamentals of 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 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 exploration of variety of media such as graphic, web, 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 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. (2) Studio/laboratory, 40 hours. Limited to high school students. Two-week summer course including lectures, required screenings, laboratory visits, field trips, and outside study. Exploration of creative aspects of scientific research and innovation to gain broad understanding of importance of contemporary art and popular culture, with focus on new sciences of biotechnology and nanotechnology. Development of proposals and ideas that could serve as prototypes for either art projects or scientific research study. P/NP grading.
7. Media Histories. (5) Lecture, three hours; outside study, 12 hours. Synthetic overview of optical media and aesthetic movements covering past two centuries: photography and industrialization/Realism (1850 to 1900), cinema and modernism (1900 to 1950), television and postmodernism (1950 to 2000), and digital media and unmodernism (2000 to 2050). How such movements can inform generative work and how understanding these media becomes essential in emerging era of digital humanities. P/NP or letter grading.
8. Art, Science, and Technology. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration and survey of cultural impact of scientific and technological innovations, technology-driven art inspired by science, and art/science collaborative projects. Introduction to vast array of cutting-edge research taking place on campus; scientific guest lecturers. Emphasis on art projects that use technology and respond to new scientific concepts. P/NP or letter grading.
9. Design Culture. (5) Lecture, three hours; outside study, 12 hours. Open to nonmajors. Understanding design process, with emphasis on development of virtual language; studio and lecture forum. Emphasis on design and understanding of cultural and economic, and cultural factors influencing design in physical environment. P/NP or letter grading.
10. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
11. Drawing and Color. (4) Studio, six hours; outside study, six hours. For drawing. Drawing, exploration of relationships between concept and image creation while fostering development of sound drawing and observation skills. For color, exploration of development of fundamental skills in mixing and applying pigments with brush on watercolor paper, as well as use of computer as tool for working with colors. Combination of painting and software to be predominant way of exploring and presenting ideas regarding color. P/NP or letter grading.
12. Form. (4) Studio, six hours; outside study, six hours. Interrelation of two-dimensional surfaces and three-dimensional forms with traditional and experimental materials as foundation for creativity; origination and solution of problems. P/NP or letter grading.
13. Motion. (4) Studio, six hours; outside study, six hours. Introduction and integration of traditional design, color, camera, and photography student work. Experiences and ideas related to visual thinking and fundamentals of design. P/NP or letter grading.
14. Typography. (4) Studio, six hours; outside study, six hours. Focus on three typographic basics: letter, depth, and extension to fundamentals of typogra-phy. Assignments designed to develop understanding of form, scale, and shape of letters as elements and as texture in layout. Emphasis on grid and layout (and layout) and use of typography to create successful typographic messages. P/NP or letter grading.
15. Interactivity. (4) Studio, six hours; outside study, six hours. Focus on and potential of interactive work. Development of programming skills in service of creating examples of media art. Concepts and skills taught enhance student ability to excel in future courses about Internet, animation, interactive media, and game design. Discussion and readings on four themes—form/programming, motion, interac-tivity/programming, and interface. P/NP or letter grading.
16. 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.
17. 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. 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. Examination of the relations between the media arts and historical and cultural development. P/NP or letter grading.
102. 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 cultures and media, with strong emphasis on communication design. P/NP or letter grading.
152. Tangible Media. (5) Studio, six hours; outside study, nine hours. Requires courses 22, 28, and 101 or 104. Through workshops, readings, lectures, criti-ques, and discussions, evaluation of role of
153. Video. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major required. 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 required. Requisite: course 101 or 104. Focus on developing conceptual and practical skills and knowledge of typography in context of complex communication problems in print and digital media. Research, concept and content development, and articulation of methodology for visualization. P/NP or letter grading.

156. Three-Dimensional Modeling and Motion. (5) Studio, photography, Side Studio, six hours; outside study, nine hours. Requisite: course 101 or 104. Introduction to theories of three-dimensional form, spatial design, and lighting, using three-dimensional visualization and video tools. Tools designed for motion to be used to construct form. Use of aspects of time, such as speed and duration, to contemplate form and interaction. Exploration of virtual versus real form. Letter grading.

157. Game Design. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: courses 24, 28, and 101 or 104. Preparation to game design, with focus on developing conceptual and practical skills that form basis for both digital and nondigital game development. Development of four playable game projects that explore various aspects of game design: rule design, game balance, multipayer strategy, complexity, randomness, polemics, narrative, physical interaction, and aesthetic and pragmatic aspects of physical game design. P/NP or letter grading.

159A-159B-159C. Capstone Senior Project. (5-5-5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Limited to seniors. Focus on creating final project that can be showcased at Senior Show. Students can take two different courses in different terms or the same course twice in different terms. Total units for courses 159A, 159B, and 159C may not exceed 10 units, with maximum 5 units per term. Letter grading. 159A. Interaction and Games. Requisites: courses 101, 104, 105, 161, and 160, 171, 172, or 173. Interactive media, including game design, interactive installations, digital websites, creative coding, and electronic arts. 159B. Video and Animation. Requisites: courses 24, 28, 101, 104, 153, 156, and 160, 171, 172, or 173. Linear media, including storyboard, video, animation, modeling, editing, postproduction, and lighting. 159C. Visual Communication and Image. Requisites: courses 24, 28, 101, 104, 105, 161, and 160, 171, 172, or 173. Visual communication, editorial design, typography, typography, branding, and narrative environments.

160. Special Topics in Design | Media Arts. (5) Studio, six hours; outside study, nine hours. Completion of preparation for major and upper–division core courses required. Requisite: course 151 or 104. Selected topics in design and media arts explored through variety of approaches that may include projects, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 15 units. Letter grading.


163. Narrative. (5) Lecture, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisite: course 101 or 104. Provides theoretical basis for understanding narrative that is parallel with the structure of 20th-century visual languages. Study of threads that allow viewer to connect story of one art form to another in richer context. Letter grading.

171. Topics in Interactivity and Games. (8) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major and upper–division core courses required. Requisites: courses 101 or 104, 157. Selection of an interactive media and games 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.

172. Topics in Video and Animation. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major and upper–division core courses required. Requisites: courses 101 or 104, and 153 or 156. Selected topics in video and animation 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.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate level. 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.

195A-195B. Community or Corporate Internships in Design | Media Arts. (2-4) Tutorial, six and 12 hours. Limited to juniors/seniors. Internship in super–vised design in a community or corporate setting related to design. Students meet on regular basis with instructor and provide periodic reports of their experiences. Courses 195A and 195B may be repeated for combined maximum of 16 units. Internship course must be supervised by faculty member, with supervising faculty member required. P/NP or letter grading.

198. Honors Research in Design | Media Arts. (4) Tutorial, two hours. Preparation: 3.0 grade-point average overall. Limited to juniors/senior. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated once for credit. Individual contract required. Letter grading.

199. Directed Research in Design | Media Arts. (1 to 5) Tutorial, four hours. Preparation: 3.0 grade-point average overall. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated once for credit. Individual contract required. Letter grading.

252A. Programming Media 1. (3) Studio, three hours; outside study, six hours. Limited to majors. Introduction to computer programming within context of art and design. Exploration of conceptual space enabled by electronic media through exercises, presentations, discussions, and critiques. Weekly exercise balance concept and technique to reveal potential of computer as medium and tool. Experience with programming basics includes procedural and object-oriented programming, two- and three-dimensional graphics. File I/O, color, collision detection, and image processing. Letter grading.

252B. Programming Media 2. (3) Studio, three hours; outside study, six hours. Enforced requisite: course 252A. Limited to majors. Exploration of use of electromechanical actuators and custom interface design, microcontroller programming, and building kinetic and interactive physical artworks. Application of electronics to control those embedded systems, two-dimensional and three-dimensional CAD, basic milling, laser cutting, mold making, circuit building, and other electronic fabrication techniques. Letter grading.

269. Graduate Seminar. (4) Seminar, four hours. Designed for graduate design/media arts students. Survey of critical theories in media art and design. Critical examination of student work by peers, faculty members, and expert guests. Must be taken twice for MFA degree. May be repeated for credit with consent of adviser. Letter grading.

272. Introduction to Art | Science. (3) Seminar, three hours. For past 50 years artists have increasingly realized the value of being involved in innovation and discovery to actually collaborating with scientists and even residing and working in science laboratory. History of science in relation to artists’ interpretation of scientific work by scientists that are created in response to recent developments in biotechnology and nanotechnology. Letter grading.

289. Special Topics in Media Arts. (3) Seminar, one and one half hours; seven and one half hours arranged. Examination of topics relevant to media arts theory and practice, with scheduled meetings to be arranged between faculty member and student as needed. Topics announced in advance. May be taken for combined maximum of 18 units. 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 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.

403. Graduate Critique. (2) Seminar, three hours; outside study, three hours. Enrollment of first- and second-year graduate students. Students meet with instructor in small classroom setting to exchange ideas through presentation of current projects read and discussion, research, and reports. Instructors may invite visiting critics to contribute. May be repeated for credit. S/U grading.

404. Graduate Tutorial. (3) Tutorial, three hours; outside study, six hours. Limited to first- and second-year departmental graduate students. Development of body of work while working toward MFA degree, with one-to-one interaction between students and faculty members. May be repeated for credit. Letter grading.

495. Teaching Assistant Training Practicum. (2) Seminar, three hours; outside study, three hours. Forum for first-year teaching assistants for discussion and consideration of teaching pedagogy and classroom mechanics. Problems and practices of teaching design 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. Letter grading.
598. MA Research and Thesis Preparation. (4 to 12) Tutorial, to be arranged. Designed for second-year MA students. May not be applied toward minimum graduate course or unit requirements for MA degree. May be repeated for credit. S/U grading.

DIGITAL HUMANITIES Interdisciplinary Minor College of Letters and Science

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Digital Humanities
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Minor e-mail

Todd S. Presner, PhD, Chair

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Dana Cuff, PhD (Architecture and Urban Design, Urban Planning)
Maria (Maite) T. de Zubiareau, PhD (German Languages, Spanish and Portuguese)
Johanna R. Drucker, PhD (Design/Media Arts, Digital Humanities)
Christopher M. Kelty, PhD (Archaeology, Information Studies, Society and Genetics)
Stephen D. Mamber, PhD (Film, Television, and Digital Media)
Miriam Posner, PhD (Information Studies)
Jannce 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 project-based learning at the heart of the curriculum, with students working in collaborative teams to realize digital research projects with real-world applications. Students use tools and methodologies such as three-dimensional visualization, data mining, network analysis, and digital mapping to conceptualize and advance research projects. Students have the opportunity to make significant contributions to scholarship in fields ranging from archaeology and architecture to history and literature. By preparing students to be active participants in the design and production of new knowledge, the minor emphasizes the critical thinking skills, creativity, and collaborative methodologies necessary for success in the digital information age.

Undergraduate Study

Digital Humanities Minor

The Digital Humanities minor is intended to provide students with literacy in creating, interpreting, and applying the technologies of the digital world. It examines the cultural and social impact of new technologies and enables students to harness these technologies to develop their own research projects in a wide range of fields.

To apply for the minor, students must (1) have an overall grade-point average of 2.7 or better and (2) submit an application essay supporting their interest in pursuing the minor and enumerating any digital projects that they have already undertaken. On acceptance to the minor, students are expected to identify an academic area of digital humanities in which they intend to concentrate. Information about the minor is available on the minor website. To submit an application for the minor, see the website.

Required Lower-Division Course (4 to 6 units):

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), M125A, M125B (or Archaeology and Urban Design M125B), M125C (or Architecture and Urban Design M125C) 161C, 161D, 165 (or Anthropology CM1100), Anthropology M116R (or Chinese M183), Architecture and Urban Design 132, Armenian CM153, Art History C145A, C145B, Classics 164, 166B, Design/Media Arts 104, Digital Humanities 151, or 195 or 196, English 118A, History 188, Korean 183, 187, Russian 121, 129, Scandinavian C133A, C171, Sociology and Genetics 131, 175, Spanish 130, 150, 170, Urban Planning 129, 141. Variable topics courses may be taken as topics apply.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Digital Humanities Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of disciplinary inquiry for many incoming UCLA freshmen.

30. Los Angeles Tech City: Digital Technologies and Spatial Justice. (5) Lecture, two and one half hours; studio, two hours. Investigation of spatial justice and injustice in multi-ethnic city of Los Angeles through lens of three thematic technologies that built and transformed Los Angeles into global metropolis: cars and highways, networking technologies culminating in Internet and World Wide Web, and film and broadcast media. Use of innovative forms of investigation and communication, from digital mapping to video-sensing, to integrate interpretative and historical approaches of humanities with material and perceptive 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.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Introduction to Digital Humanities. (5) Lecture, four hours; discussion, one hour. Foundation course for students in Digital Humanities minor, providing theoretical and conceptual framework for understanding genesis of digital world. Use of contemporary cultural-historical methodology to focus on rise of new media and information technologies in 19th, 20th, and 21st centuries, such as photography, film, radio, television, Internet, and World Wide Web and their impact on how individuals, groups, and cultures experienced their worlds. Letter grading.

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 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 subject matters related to notions of spatial equity in context of Los Angeles, exploration of how certain spatial technologies such as geographic information systems (GIS) cartography, mobile telephony, real-time data collection, social media, digital databases, and interactive web platforms can be deployed to research and document urban experience. 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.

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.

194. Research Group Seminars: Digital Humanities. (2) Seminar, two hours. Requisites: course 101, completion of two other minor courses. May be taken concurrently with course 196 or 198. Designed for undergraduate students who are part of research group. Discussion of research methods, tools, and current literature in field or of research of faculty members and students. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in Digital Humanities. (4) Tutorial, two hours: fieldwork, eight hours. Limited to juniors/seniors. May be taken concurrently with course 194. Internship in supervised setting in community agency or business. Placements 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 Apprenticehip in Digital Humanities. (Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprentice- ship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. Letter grading.

198. Honors Research in Digital Humanities. (4) Tutorial, one hour. Requisite: course 194. 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.

199. Directed Research in Digital Humanities. (2 to 4) Tutorial, one hour. Requisite: course 194. 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 Courses

201. Introduction to Digital Humanities. (5) Seminar, three hours; laboratory, one hour. Introduction to field of digital humanities. Historical overview of field from its 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 tools and methods, ranging from map visualization and modeling environments to database structures and interface design, are arguments that make certain assumptions about, and even transform, objects of study. Letter grading.

250. Special Topics in Digital Humanities. (4) Seminar, three hours. Enforced requisite: course 201. Introduction to advanced research method or thematic issue in digital humanities, such as digital textual analysis, digital mapping, database and visualization technologies, or social media technologies. Acquisition of familiarity with 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.

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.

596. Directed Individual Study or Research. (2 to 12) Tutorial, three hours. To be arranged with faculty member who directs study or research. S/U or letter grading.

DISABILITY STUDIES

Interdisciplinary Minor
College of Letters and Science

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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 undergraduate students to the emerging interdisciplinary field of disability studies, offering a new lens for thinking about the body, society, and culture. The field reorients a marginalized phenomenon at the center of our experience, 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 the minor develop both breadth and depth in their understanding of the concept and practical implications of disability.

Undergraduate Study

Disability Studies Minor

To enter the Disability Studies minor, students must (1) have an overall grade-point average of 2.7 or better and (2) submit an application essay supporting their interest in pursuing the minor. To help plan the internship and course schedule, students are expected to work closely with the minor’s academic advisor. Applications are available on the minor website and must be filed with Chair, Bruce L. Baker. Counseling, A316 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 (UCCS) program or the Center for American Politics and Public Policy (CAPPP) program may be substituted by petition and is subject to approval by the faculty committee.

Required Upper-Division Capstone Courses (5 to 6 units): Disability Studies 191 or 198A and 198B or 199A and 199B. Prior to enrolling in any capstone option, students must complete Disability Studies 101 or 101W, two upper-division electives, and at least one term of an internship or apprenticeship.

The capstone experience for the minor requires an integrative final paper or project that incorporates the required curriculum and elective courses. Students complete the capstone experience by enrolling in a senior research seminar (Disability Studies 191) or by enrolling in two-term independent study courses (198A and 198B or 199A and 199B) under the guidance of a faculty sponsor. The faculty sponsor approves the proposed readings as well as the length and scope of the final paper or project based on guidelines developed by the faculty committee for the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 3.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Disability Studies

Lower-Division Courses

10. Intersections of Art History and Disability Studies: Disability in Modern Art. (5) Lecture, four hours. Broad overview of presence of disability and its manifestations through modern art in the 19th and 20th centuries. Introduction of historical development and fundamental intellectual and ethical issues associated
with representation of disability in arts and human- ities. Investigation of complex relations between ar- tistic and humanitarian expression and this major facet of society and culture. Introduction of new method- ology and language to build framework around how disability is represented and to develop strategies for how they are represented in art and literature. An alternative way of knowing and how disability informs modern art by way of radical aesthetics of representa- tion that challenges sociocultural norms. Consider- ation of how the language of disability intersects with photography, performance art, outsider art, and curatorial practices. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of thinking about touch and 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-divi- sion lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1)Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to lower-division lecture course. In- dividual study with lecture course instructor to ex- plorer topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of two credits; individual contract re- quired. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (sup- ervised 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 enroll in 2 units (excluding this course). Individual contract required; consult Under- graduate 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 101. Creation of critical framework for understanding concept of disability. On sampling of disciplinary perspec- tives. Organized around productive and central ten- sion in disability studies—between disability as lived subjective experience that is both individual and com- munal, and disability as objective, medical, legal, and sometimes stigmatized category. Students encour- aged to make connections between units and to create their own perspectives on disability in field that defines itself by how it changes. Letter grading.

101W. Perspectives on Disability Studies. (5) Lecture, one hour; discussion, two hours. Enforced requi- site: English Composition 3 or English as a Second Language 36. Not open for credit to students with credit for course 101W. Creation of critical framework for understanding concept of disability from sampling of disciplinary perspectives. Organized around productive and central tension in disability studies—between disability as lived subjective experience that is both individual and communal, and disability as objective, medical, legal, and sometimes stigmatized category. Students encouraged to make connections between units and to create their own perspectives on disability in field that defines itself by how it changes. Satisfies Writing II requirement. Letter grading.

102. Disability and Violence. (4) Seminar, three hours. Relationship between disability and violence from three angles: (1) review of disproportionate inci- dence of violence committed against people with dis- ability. Analysis of factors of hate crimes based on dependency and/or vulnerability that ac- company some types of disability, (2) study of role of disability and particularly mental illness in representa- tions of disability and violence, and (3) disabled or emergent disability (injuries, illnesses, and impair- ments created by social inequity) as consequence of intersecting forms of racial, gender, sexual, and class subordination, or as result of state or interpersonal vi- olence. Consideration of possible coalition-based strategies for challenging systemic subordination and promoting disability consciousness across social movement efforts and campaigns. P/NP or letter grading.

M103. Studies in Disability Literatures. (5) Same as English M103.) Lecture, four hours, and discussion, one hour (when scheduled). Enforced requisite: En- glish Composition 3 or 3H. Survey of modes of dis- ability in literature, with specific emphasis on thematic connections to key issues in disability studies; race, gender, and disability; disability; narratives; etc. May be repeated for credit with topic or instructor change. P/NP or letter grading.


111. Disability as Spectacle: Performing Nonnor- mative Bodies. (4) Lecture, two hours; studio, two hours. Examination through eyes of disability activists and its relationship to disability activism. Use of this lens on disability to research and explore role that bodies play in political battles over who gets socially valued and who does not. P/NP or letter grading.

M114. Varieties of Disability and Disability Studies. (4) (Same as Theater M114.) Seminar, four hours. Analysis and critique of depiction of dis- ability in theater. Topics may include introduction to disability studies; race, gender, and disability; repre- sentation 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 nor- mality, disability, and disability activism. Reading 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 cen- turies to present. Primary attention to rise of medical authority in West, history of eugenics, and contempo- rary 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 or directs students to investigate mechanisms and systems that shape race, ableism, and dominant/non- dominant power dynamics. P/NP or letter grading.

M121. Topics in Gender and Disabilities. (4) (Same as Gender Studies M121.) Lecture, three and one half hours. Limited to juniors/seniors. Ways in which is- sues of disability are affected by gender, with partic- ular attention to various roles, positions, and con- cerns of women who work in inter- sectional, exploring how social categories of class, race, ethnicity, religion, age, sexuality, nationality, and citizenship affect and are affected by gender and dis- ability. Topics may include law (civil rights, nondis- crimination), representation (arts, literature), educa- tion, public policy, health. May be repeated for credit with topic and instructor change. P/NP or letter grading.

M122. Bodies in Antiquity. (4) (Same as Classics M149.) Lecture, three hours. Investigation of individ- uals and groups that compose ancient Greek and Roman societies and relationship they have with larger social body, with particular focus on marginali- zed identities. Topics may include group(s) of citizens (resident aliens and provincials), slaves, children, el- derly, and disabled. Examination of ways these groups contribute to or detract from our under- standing of ancient societies. Course may be re- peated for credit with topic change. P/NP or letter grading.

M125. Exploring Intersections of Ability and Sexu- ality in Disability Studies. (Same as Lesbian, Gay, Bisexual, and Transgender Women's Studies M125.) Lecture, three hours. Exploration of identity as means of under- standing cultural formations, dominant/nondominant power dynamics, and systems of visual representa- tion. Intersectional approach to explore how ability and sexuality intersect, overlap, and change notions of identity. Use of scholarly texts from disability studies, lesbian, gay, bisexual, and transgender studies, popular culture, performance, and film to in- vestigate factors that shape ability and sexuality as basis for identity. May be repeated for credit with topic or instructor change.

129. Theory, Policy, and Practice of Special Educa- tion: Implications for Educators and Advocates. (4) Lecture, three hours. Examination of issues of dis- ability in K-12 schooling and social and historical con- text of special education policy implementation. Focus on equity-related legal and policy issues in education, specifically those associated with disability, race, language, and gender and how these intersect. Consideration of landmark court decisions such as Brown versus Board of Education (1954) and Board of Education versus Rowley (1982), as well as key legislation such as Americans with Disabilities Act (ADA) and Individuals with Disabilities Education Act (IDEA). P/NP or letter grading.

M130. Disability Policy and Services in Contempo- rary America. (4) (Same as Gerontology M165 and Social Welfare M165.) Lecture, three hours. Designed to be required for juniors/seniors. Growing numbers of people of all ages with disabilities are leading active and produc- tive lives in American communities. Many others are struggling to lead such lives. Who are people with dis- abilities in contemporary America? How has U.S. re- sponded over time to various needs and aspirations of people with disabilities, young and old? What de- mands have been made by people with disabilities or 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 the voices of people with disabilities? How do demographics, economics, and politics continue to influence evolving public policy responses? P/NP or letter grading.

131. Alternative Approaches to Language Acquisi- tion. (4) Formerly numbered M131.) Seminar, four hours. Examination of everyday experience of lan- guage delay, disorder, difference, and difficulty from disability studies perspective. Presentation of key concepts and terminology of culture, disability, and language use. Discussions and assignments critically evaluate findings on language acquisition by asking questions from disability studies about inclusion, indivi- dual- and socially constructed experience, and power. P/NP or letter grading.

138SL. Applied Autism Intervention: Multidisci- plinary Perspective. (4) Seminar, 90 minutes; field- work, six hours. Service-learning course for under- graduate students in Early Childhood Partial Hospital- ization 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 fields of psychology, neuro- science, and disability studies. Review of social— and medical model versus social construction and analysis of dominant as well as counter discourse on autism. Overview of broader educational issues for children living with disabilities as well as parent perceptions. P/NP or letter grading.
masculinity. Sources include readings, film, television, sports integration, competition versus charity, and athletes. Overview of some major topics of discussion.

Gender Studies M161.) Lecture, four hours. Since
ment and dance-making. P/NP or letter grading.

Discussion of work, and embodying ideas through move-
ment and organization and behavior of bodies, as well as choreography as poetic form for expression
of ideas, creative tool, or product. Viewing and dis-

process of making work about disability by key artists
who identify as disabled, reading and discussion of
range of performance by, featuring, or about people
with disabilities. Letter grading.

M166. Future of Humanity: Bioethics of Health and
Disability. (4) (Same as Society and Genetics M163.)
Lecture, three hours; discussion, one hour. Should
parents choose to have abortion if their fetus will likely have disability? What is the basis for deciding their own life through physician-appointed dying? Is disability
form of human variation we can live well with, disease
we should eliminate, or mistake we should cut out of
human genetic code? Study of ethical, political, and
dependent on perspective. Viewing and critical dispara-
ties appear more often on cable, public television,
and Internet. Examination of how powerful doc-
umentaries still rely on well-told stories by passionate
director, in the same way that major motion pictures
appear more frequently on cable, public television,

M148. Sociology of Mental Illness. (4) (Same as So-
ciology M148.) Lecture, three hours; discussion, one
hour. Analysis of major sociological and social psy-
chological models of madness. Study of social pro-
cesses involved in production, recognition, labeling,
and treatment of mental illness. P/NP or letter grading.

M149. Disability Rights Law. (4) (Same as So-
ciology M120.) Lecture, four hours. Examination of

150. Human Rights, International Development,
and Disability. (4) Lecture, three hours. Basic intro-
duction to international human rights, sociology of
development, and contemporary rights-based develop-
ment theory and practice. International disability
rights movement to serve as case study, following passage of U.N. Convention on Rights of Persons
with Disabilities in 2006 to changes on ground in
developing countries that are occurring today. Offered
in summer only. P/NP or letter grading.

M157. Recho regraphing Disability. (4) (Same as
Dance M157.) Seminar, four hours. Through study of
range of performance by, featuring, or about people
who identify as disabled, reading and discussion of
range of writing about experiences of disability and
problems of meaning about disability by key artists
and thinkers. Introduction to concept of choreography
as political/cultural idea broadly defined as scored
movement and organization and behavior of bodies,
as well as a poetic form for expression of ideas, creative tool, or product. Viewing and dis-

167. Special Topics in Disability Studies. (4) Lec-
ture, one hour; discussion, two hours; two hours
suggested. Variable topics in one area within disability
studies. May be repeated for credit with topic and/or
instructor change. P/NP or letter grading.

168. Advanced Disability Studies. (4) Seminar; three
hours. Limited to 20 students. Designed as adjunct
to undergraduate lecture course. Exploration of topics in

M139. Perspectives on Autism and Neurodiversity.
(4) (Same as Psychology M139.) Seminar, three and
one half hours. Genealogy of autism as diagnostic
category and cultural phenomenon from its historical
roots as new, rare, and obscure condition in early 1940s;
life with autism spectrum status as marginalized
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 of defining, explaining, and repre-

M164A. Documentary Production for Social Change:
Mobility in Los Angeles. (5) (Same as Urban Planning
M164A.) Seminar, three hours. Three hours; field;
fell, work, two hours. Exploration of documentary
filmmaking as catalyst for social change, using daily com-
mute in Los Angeles as case study. Introduction to is-
sues of race, ethnicity, gender, disability, and class on
experiences of disability. Pros and cons of transpor-
tation, and car-based versus alternative (bike and
pedestrian) forms of commuting. Exposure to obser-

191. Variable Topics Senior Research Seminars: Dis-
ability Studies. (5) Seminar, three hours. Enforced
requirement course 101 or 101W. Designed for ad-
anced junior/senior Disability Studies minors. In-
dependent study of major topics in disability stud-
ies. Themes vary by instructor and term. Students
pursue independent research related to course spec-
ifications, share and critique other student work in progress. May be re-
peated for credit with topic change. Letter grading.

194. Capstone Research Seminar. (2) Seminar, two
hours. Enforced requisite: course 195CE. Required
for students pursing Disability Studies minors. Exploration
of off-campus work with academic theories and con-
cepts within field of disability studies. Students report
on their internship experiences and analyze relation-
ship between these experiences and policies, issues and
of identity and political power. Consideration of
controversies fueled by new technologies and

195CE. Community and Corporate Internships in
Disability Studies. (4) Tutorial, to be arranged; field-
work, eight to 10 hours. Limited to juniors/seniors.
Internship in corporate, governmental, or nonprofit set-
tings coordinated through Center for Community
Learning. Students complete weekly written assign-
ments, attend biweekly meetings with graduate stu-
dent coordinator, and write final research paper. Fac-
tory sponsor and graduate student coordinator con-
struct 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.

196. Research Apprenticeship in Disability Stud-
ies. (4) Tutorial, one hour. Limited to junior/senior Dis-
ability Studies minors. Entry-level research appren-
ticeship under guidance of faculty mentors affiliated
with Disability Studies minor. Collaboration with fac-
ulty mentors on their research in area related to dis-
ability studies. May be repeated for credit. Individual
course required. Letter grading.

196A-198B. Honors Research in Disability Studies.
(2–4) Tutorial, one hour. Enforced requisite: course 101 or 101W. Course 198A is enforced requisite to
198B. Limited to juniors/seniors. Required capstone
course to Disability Studies minor for students purs-
suing College Honors. Development and completion of
honors thesis or comprehensive research project
under direct supervision of faculty member. May be
repeated for credit. Individual contract required. In
Progress (198A) and letter (198B) grading.

198C. Honors Research in Disability Studies. (2 to
8) Tutorial, one hour. Limited to juniors/seniors. Devel-
opment and completion of honors thesis or compre-
prehensive research project under direct supervision
of faculty member. May be repeated for credit.
Individual contract required. Letter grading.

(2–4) Tutorial, one hour. Enforced requisite:
course 101 or 101W. Course 199A is enforced requi-
site to 199B. Limited to juniors/seniors. Required cap-
stone course to Disability Studies minor for students purs-
suing College Honors. Development and completion of
honors thesis or comprehensive research project
under direct supervision of faculty member. May be
repeated for credit. Individual contract re-
quired. In Progress (199A) and letter (199B) grading.

199C. Senior Project in Disability Studies. (2) Tutorial,
one hour. Limited to juniors/seniors. Super-
vised individual research or investigation under guid-
ance of faculty mentor. Culminating paper or project
required. May be repeated for credit. Individual contract re-
quired. Letter grading.
Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

EARTH, PLANETARY, AND SPACE SCIENCES
College of Letters and Science

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Bruce N. Runnegar, PhD
Gerald Schubert, PhD
Ronald L. Shreve, PhD
Raymond J. Walker, PhD
John T. Wasson, PhD

Associate Professors
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Jonathan M. Mitchell, PhD
Hilke E. Schlichting, PhD
Ulrike Seibt, PhD
Aradhna K. Tripathi, PhD

Assistant Professors
Mackenzie Day, PhD
Lingsen Meng, PhD (Leon and Joanne V.C. Knopoff Professor of Physics and Geophysics)
Seugli Moon, PhD

Adjunct Professors
Rosario Esposito, PhD
Robert C. Newton, PhD
Edward J. Rhodes, PhD

Scope and Objectives
The disciplines of geology, geochemistry, geophysics, paleobiology, and space physics are concerned with the structure and evolution of the solar system, Earth, and life: essentially, the physical environment and its interaction with biota. These studies entail the application of fundamental physics and chemistry to a broad subject area stretching from astronomy at one extreme to biology at the other. Areas that are emphasized in the Department of Earth, Planetary, and Space Sciences include isotopic and trace element analyses, petrology and mineralogy, sedimentology, paleobiology and organic geochemistry, structural geology and tectonophysics, seismology, the Earth’s interior, planetary physics, and space plasmas.

The variety of techniques applied lead to several concentrations within the three main disciplines. Students completing their studies with a BS or MS degree usually are employed by industry. Many are employed in environment-related activities; others are involved in mineral or oil exploration or in construction. Students attaining the PhD degree are usually employed by universities or governmental and industrial research groups.

The Bachelor of Arts program in Earth and Environmental Science is intended to provide a broad background in Earth sciences that is especially appropriate for students intending to become K through 12 teachers in Earth, physical, or life sciences. It may also be of interest to students who plan careers in business, dentistry, environmental sciences, government, journalism, law, medicine, or public health. Those who intend to become professional geologists, geochemists, or geophysicists and/or to continue into graduate studies in Earth or space sciences are urged to pursue one of the BS degrees.

Undergraduate Study
All of the majors offered in the Earth, Planetary, and Space Sciences Department are designated capstone majors. While the specific nature of the capstone experience varies by major, students are required to use skill and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Earth and Environmental Science BA

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, two general chemistry courses with laboratory for majors, and one calculus course. One introductory biology course with laboratory and one calculus-based physics course with laboratory are recommended.

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

The Major
Required: Three courses from Earth, Planetary, and Space Sciences 103A, 103B, 111, 112, 116, 119; one capstone 199 research course in the senior year; three additional upper-division courses from Earth, Planetary, and Space Sciences other than 100; two courses from Geography 100, 101, 104, 105 and 105A, M107, M109, 110, 124, 125, M127, M131.

Engineering Geology BS

Capstone Major

Learning Outcomes
The Engineering Geology major has the following learning outcomes:
- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results

Preparation for the Major
Required: Earth, Planetary, and Space Sciences 1, 51, 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 Engineering Geology major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, two general chemistry courses with laboratory for majors, and one year of calculus. A second year of calculus is recommended.

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, 136A, 139; Civil and Environmental Engineering 108, 120, 121, 150; two capstone field research courses (Earth, Planetary, and Space Sciences 121, 121F).

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 51, 61, 71, and one course from 1 (preferred) through 15; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL. 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 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.

Preparation for the Major
Required: Earth, Planetary, and Space Sciences 51, 61, 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 111, 112, 122, 136B, 150, 152; marine geophysics—courses 119, 122, 136B, 150, 153, 154, (2) 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, Earth, Planetary, and Space Sciences 136B, 154, 155, Physics M122. Any course used to satisfy an area requirement cannot also be applied toward the core requirements listed above.

Honors in Geology or Geophysics
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, course from 5, 13, 15, or 61.

Required Upper-Division Courses (20 units minimum):
Five courses from Earth, Planetary, and Space Sciences 101, 112, C113, 139, 150, 153.

Earth and Environmental Science Minor

Geology Minor
Geology emphasizes use of minerals, magmas, elements, and isotopes to date events, determine rates, and track matter through its cycles in the planets and biosphere. These skills are valuable in environmental and natural-resource work and anthropology, as well as in studying the histories of the planets.

To enter the Geology minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (8 units):
Earth, Planetary, and Space Sciences 1, 51.

Required Upper-Division Courses (20 to 26 units):
Two courses from Earth, Planetary, and Space Sciences C106, C107, C109, and three courses from 103A, 103B, 103C, 106 or C107 or C109 (whichever course was not applied above), 152, 153.

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.

Geochemistry Minor
Geochemistry minor.

Earth, Planetary, and Space Sciences / 303
nor. 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, 171.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Geophysics and Planetary Physics Minor
Classical physics, supported by field data, mathematics, and computing, is used to understand diverse processes from ocean circulation and earthquakes to the formation of planets and the flow of particles and electromagnetic fields in space. These skills are valuable in environmental, engineering, and resource studies and more broadly in any kind of career that requires quantitative analysis.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Earth, Planetary, and Space Sciences offers Master of Science (MS), Candidate in Philosophy (CPHIL), and Doctor of Philosophy (PhD) degrees in Geophysics, and Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Geophysics and Space Physics.

Earth, Planetary, and Space Sciences

Lower-Division Courses

1. Introduction to Earth Science. (5) Lecture, three hours; laboratory, two hours; field days. Not open to students with credit for or currently enrolled in course 100. Elements of Earth science; study of Earth materials; nature and interpretation of geologic evidence; study of geologic time and evolution. Mandatory field trips introduce students to solving of geologic problems in field. P/NP or letter grading.

2. Geology: The Rocks. (4) 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 primarily from planetary and Earth science, paleontology and biology, 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 hazards and natural resources of greater Los Angeles region. Topics include Los Angeles geologic hazards such as earthquakes, landslides, and floods; Southern California oil fields; gold and gem mining in region; local beach processes; and Los Angeles water resource problems. Field trips to San Andreas fault, California aqueduct, active landslides, and historic gold mines. P/NP or letter grading.


8. Earthquakes. (5) Lecture, three hours; laboratory, one hour; one field day. Causes and effects of earthquakes. Plate motion, frictional faulting, earthquake instability, wave propagation, earthquake damage, and other social effects. Hazard reduction through earthquake forecasting and earthquake-resistant design. P/NP or letter grading.


11. Natural Disasters. (5) Lecture, three hours; discussion, one hour; one field day. Global urbanization together with historical demographic population shift to coastal areas, especially around Pacific Ocean's "Ring of Fire," are placing increasingly large parts of this planet's human population at risk due to earthquakes, volcanoes, and tsunamis. Global climate change combines with variety of geologic processes to create enhanced risks from catastrophic mass movements (e.g., landslides, avalanches, calving, and fires). Exploration of physical processes behind natural disasters and discussion of how these natural events affect quality of human life. P/NP or letter grading.

15. Blue Planet: Introduction to Oceanography. (5) Lecture, three hours; laboratory, two hours. Not open for credit to students with credit for or currently enrolled in the following courses: Earth and Planetary Sciences 114, 136A, 136B. Lecture, three hours; laboratory, two hours. Enforced requisite: course 1. Recommended: completion of course 10 for current enrollment.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

20. Natural History of Southern California. (5) Lecture, two hours; laboratory, three hours; five field trips. Identification, distribution, diversity of native plants and communities; identification and interpretation of rocks, minerals, and geologic features and geologic history of physiographic regions of Southern California. Emphasis on field-based learning. P/NP or letter grading.


52. Minerals and Their Uses. (4) Lecture, two hours; laboratory, two hours; four field trips. Enforced requisite: course 1. Recommended: completion of course 2.

53. Introduction to Computers for Geoscientists. (4) Lecture, three hours; laboratory, three hours; outside computing study, three hours. Introduction to writing programs in MATLAB, visualization of geoscience data, and comparison with models. 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. Enforced requisite: course 1. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Honors content noted on transcript. P/NP or letter grading.
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 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Principles of Earth Science. (4) Lecture, three hours. Designed for nonmajors. Open to students with credit for course 1. Fundamentals of physical geology and Earth history: major problems of geology, such as Earth's origin and development of life; global and local scale features of Earth; physical and biological evolution. P/NP or letter grading.


103A. Igneous Petrology. (5) Lecture, two to three hours; laboratory, six hours, six field trips. Enforced requisites: course 71, Geology 14B and 14F, or Mathematics 20L, Mathematics 3B or 31B. Mineralogy, chemical composition, and field occurrence of igneous rocks with reference to their origin by melting in earth. Introduction to thermodynamics as applied to petrology. Formation of magma, its movement, eruption, crystallization, and chemical evolution. Petrologic structure of crust and mantle and its relation to seismology. Overview of petrological and chemical evolution of Earth, the moon, and other planets from their origin to melting in earth. P/NP or letter grading.

103B. Sedimentary Petrology. (5) Lecture, two to three hours; laboratory, six hours, six field trips. Enforced requisites: course 103A. Recommended: course 1A. Study of sedimentary rocks based on characteristics of sedimentary particles and dynamics of depositional processes. Practical applications of petrologic principles to 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 application of physical and chemical principles in geological reasoning. P/NP or letter grading.

C106. Physical Geochemistry. (4) Lecture, three hours. Requisite: course 51. Basic principles of physical chemistry for geologic applications. Thermodynamics and kinetics of reactions among minerals, natural waters, and magmas; construction and interpretation of phase diagrams; case studies of important geochemical and environmental issues, concurrently scheduled with course C206. 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 Earth and its environment. Concurrently scheduled with course C207. P/NP or letter grading.


111. Stratigraphic and Field Geology. (6) Lecture, two hours; laboratory, three hours; fieldwork, eight hours per week. Enforced requisites: courses 61, 112.
explore, 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 natural gas and petroleum; techniques of surface and subsurface geology; problems of petroleum geology. P/NP or letter grading.

139. Engineering and Environmental Geology. (4) Lecture, three hours; discussion, one hour. Requisite: course 1 or 100. Recommended: course 111. Principles and practice of soil mechanics and foundation engineering in light of geologic conditions, recognition, prediction, and correction of subsidence, landslides, earthquakes, and other geologic aspects of urban planning and subsurface disposal of liquids and solid wastes. P/NP or letter grading.


C141. Basin Analysis. (4) Lecture, three hours; laboratory, three hours. Requisites: courses 103B, 111. Mechanisms of basin development, structural and thermal subsidence, isostasy, subsidence analysis, quantitative basin modeling, sediment provenance, tectonic settings. Concurrently scheduled with courses 151A, 151P or letter grading.


152. Physics of Earth. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 33A, Physics 1C or 1CH. Crust-to-core tour of Earth and physics used to explore it. Isotropy, plate tectonics, mantle convection, and geodynamics as discovered with tools of elasticity, fluid mechanics, and thermodynamics. P/NP or letter grading.

153. Oceans and Atmospheres. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, 32A, Physics 1A, 1B, and 1C or 1AH, 1BH, and 1CH. Physics and chemistry of Earth’s oceans and atmosphere; origin and evolution of planetary atmospheres; solar radiation, heat budget, atmospheric circulation, climate, energy 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. Physics and chemistry of Earth’s oceans and atmosphere; origin and evolution of planetary atmospheres; solar radiation, heat budget, atmospheric circulation, climate, energy and dynamics of oceanic and atmospheric circulation systems. P/NP or letter grading.


Electives
2003. Planetary Surfaces. (4) Lecture, three hours. Introduction to basic physical processes (both exogenic and endogenic) shaping solid surfaces in solar system and description of their optical and thermo-physical properties, with emphasis on simple physics-based models. Discussion of current literature. S/U or letter grading.

200E. Planetary Origins and Evolution. (4) Lecture, four hours. Designed for graduate students who are interested in origins of planetary systems and history of solar system. Open to advanced undergraduate students with consent of instructor. Provides background needed to understand and/or participate in research related to formation and evolution of solar system and of other planetary systems. Description of star/planet formation process and subsequent evolution of planetary systems by integrating observations and theoretical modeling. Emphasis on interdisciplinary knowledge and communication between Departments of Earth and Space Sciences and Physics and Astronomy graduate students and faculty members. S/U or letter grading.


C206. Physical Geochemistry. (4) Lecture, three hours. Requisite: course 51. Basic principles of physical and chemical applications. Thermodynamics and kinetics of reactions among minerals, natural waters, and magmas; construction and interpretation of phase diagrams; case studies of important geochemical and environmental issues. Concurrently scheduled with course C106. Additional independent research project and oral presentation required of graduate students. S/U or letter grading.

C207. Physical Geochemistry. (4) Lecture, three hours; discussion, one hour. Designed for junior/senior and graduate physical and biological 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. Additional homework and class presentation required of graduate students. S/U or letter grading.


210. Geochimical Kinetics: Thermochronometry. (4) Lecture, three hours; discussion, one hour. Designed for graduate physical and biological sciences students. Theoretical basis and application of thermochronometry: derivation of diffusion equation and boundary conditions; diffusion and mass loss in the diffusion equation; Boltzmann/Matano analysis, multicomponent diffusion, closure theory, Analytical/Analytical interpretation models, diffusion analysis theory. S/U or letter grading.

211. Mathematical Methods of Geophysics. (4) Lecture, four hours. Requisites: Physics 105A, 110A, 112, 131. Recommended: Physics 132. Designed to provide mathematical tools needed for students pursuing PhD in Geophysics and Space Physics, as well as related programs in department. Extensive survey of these methods, with focus on physical applications consistent with needs of geophysics students encountering in their research. Letter grading.

C213. Biological and Environmental Geochemistry. (4) Lecture, three hours. Requisites: Chemistry 14A and 14B (or 20A and 20B), Mathematics 5A, 3B, and 3C (or 31A and 31B). Recommended: at least one lower-division Earth, planetary, and space sciences course, and an intermediate undergraduate course in biological and physical sciences. Study of chemistry of Earth's surface environment and interplay between biology, human activity, and geology. Introduction to origin and composition of Earth's atmosphere, lithosphere, crust, and hydrosphere. Examination of 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 C113. S/U or letter grading.

C214. Aquatic Geomicrobiology. (Formerly numbered C214.) (Same as Atmospheric and Oceanic Sciences M214.) Lecture, three hours; discussion, one hour. Designed for graduate students. Emphasis on aquatic microbiology including aquatic microorganisms, aquatic parks/ponds, biofilms, and the biochemistry of aquatic ecosystems. S/U or letter grading.

C216. Evolutionary Biology. (4) (Same as Ecology and Evolutionary Biology M216.) Lecture, two hours; discussion, two hours. Concepts and topics in evolutionary biology, including microevolution, speciation and species concepts, analytical biogeography, adaptive radiation, mass extinction, community evolution, molecular evolution, and development of evolutionary thought. S/U or letter grading.

M217. Molecular Evolution. (4) (Same as Ecology and Evolutionary Biology M231.) Lecture, two hours; discussion, two hours. Advanced topics in molecular evolution, with special emphasis on molecular phylogenetics. Topics may include nature of genome, neutral evolution, molecular clocks, concerted evolution, molecular systematics, statistical tests, 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. Planetary rotations, satellite orbits, and tidal dissipation; planetary orbital system; resonance effects and chaos; spin-orbit and orbit-orbit coupling; planetary rings. S/U or letter grading.

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 project from start to finish. Resolution of problems in Southern 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. Types of seismic waves; travel-time seismology; epicenter location; amplitude variations; seismograms; earthquake magnitude; seismicity; tectonic settings; surface wave analysis; microseisms and tsunamis. S/U or letter grading.

M224A. Elastodynamics. (Same as Mechanical and Aerospace Engineering M224A.) Lecture, four hours. Required for students pursuing PhD in Geophysics and Space Physics. Equations of linear elasticity, Cauchy equation of motion, constitutive relations, boundary and initial conditions, principle of energy. Solutions and waves in unbounded isotropic and anisotropic solids. Half-space problems. Guided waves in layered media. Applications to dynamic fracture, nondestructive evaluation (NDE), and mechanics of earthquakes. Concurrently scheduled with course 224B. Students required to read more recommended references, make class presentations on particular topics resulting from that reading, and lead seminar-type discussions on their selected topics. S/U or letter grading.

225. Physics and Chemistry of Planetary Interiors. (4) Formerly numbered 225A.) Lecture, four hours. Chemical compositions of Earth and planets; high-pressure and temperature effects, phase transitions, and equations of state; variation of density and temperature with depth; thermal and compositional evolution. S/U or letter grading.

C226. Advanced Petrology. (4) Lecture, three hours; laboratory, three hours. Requisite: course 103A. Designed for graduate students. Understanding genesis of igneous rocks based on geochemical, tectonochemical, and other geological evidence. Emphasis on experimental petrology. Concurrently scheduled with course C126. Graduate students required to read more recommended references, make class presentations on particular topics resulting from that reading, and lead seminar-type discussions on their selected topics. S/U or letter grading.

228. Introduction to Planetary Dynamics. (4) Lecture, three hours; laboratory/discussion, 90 minutes. Requisites: courses 200A, 200B, 200C. Designed for graduate students. Basic principles of planetary dynamo generation. Planetary core dynamics and core convection; mean field dynamo theory; kinematic dynamo theory; survey of modeling techniques and results. S/U or letter grading.

M229. Planetary Atmospheres and Climates. (4) (Formerly numbered 229.) (Same as Atmospheric and Oceanic Sciences M229.) Lecture, three hours. Enforced requisite: Physics 1C. Planetary atmospheric structure and composition, radiative transfer, and climate dynamics. Topics include origin and evolution of atmospheres, paleoclimate of Earth and Mars, atmospheric thermodynamics, plane-parallel radiative transfer, climate dynamics, climate forcings/feedbacks, bifurcation, and climate hysteresis. S/U or letter grading.

230. X-Ray Crystallography. (4) Lecture, three hours; laboratory, three hours. Requisite: course 51. Point, translation, and space group symmetries; diffraction of X-ray, reciprocal lattice theory, single crystal X-ray methods, diffraction symmetry and elementary crystal structure analysis. S/U or letter grading.

231. Crystal Chemistry and Structure of Minerals. (4) Lecture, three hours; laboratory, three hours. Requisite: course 51. Bonding, interatomic configurations, polymorphic transformations, isomorphism, thermal and positional disorder; survey of structures of common minerals, and relation of physical and chemical properties to crystal structure. S/U or letter grading.


C235. Advanced Thermochemistry. (4) Lecture, three hours; discussion, two hours. Recommended: course 6. Designed for graduate students. Emphasis on advanced chemical thermodynamics, leading to path dependence and integration of Maxwell relations. S/U or letter grading.

236. Planetary Physics. (4) Lecture, three hours; laboratory, three hours. Enforced requisite: course 121F. Topics include the physics of the Earth's core, the geodynamo, interior mechanics, and the theory of fluid dynamo. Applications to the geodynamics of Earth and other terrestrial planets. S/U or letter grading.
minution of pressure, volume, and temperature relationships and planet-forming compounds. Variation of elastic constants with temperature and pressure. Application of shock-wave experiments to equations of state, S/U or letter grading.

234. Petrologic Phase Equilibria. (4) Lecture, three hours; discussion, three hours. Requisites: course 51. Chemistry 110B. Principles governing homogeneous and heterogeneous equilibria, with selected applications to mineral stability relations in igneous and metamorphic rocks (fractional crystallization, partial melting, hydrothermal solutions, element partitioning in coexisting phases), S/U or letter grading.

235A-235B-235C. Current Research in Geochemistry. (1-1-1) Limited to graduate Earth, planetary, and space sciences students. Seminars presented by staff, outside speakers, and graduate students stressing current research in Earth and planetary chemistry. May be repeated for credit. S/U grading.

238. Metamorphic Petrology. (4) Lecture, three hours; laboratory, six hours. Preparation: one introductory petrology and petrography course. Interpretation of the petrographic evidence in the light of observation, theory, and experiment. Geological relations, petrographic evidence, metamorphic zoning, thermodynamics of phase equilibria, projections, chemo- graphochemical relationships, geotectonic regimes, Rayleigh depletion model, isotopic fractionation, environmental factors of metamorphism. Laboratory study of representative metamorphic rocks and suites of rocks studied to test major topics discussed in lectures. 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, substorms, auroral arcs, merging, shock-fronts, and adiabatic particle instabilities. S/U or letter grading.

241. Basin Analysis. (4) Lecture, three hours; laboratory, four hours. Requisites: courses 103B, 111. Mechanisms of sedimentary basin development, flexural and thermal subsidence, isostasy, subsidence analysis, quantitative basin modeling, sediment provenance, basin reconstruction, S/U or letter grading.

242. Sandstone Petrology. (4) Lecture, two hours; laboratory, four hours. Requisites or corequisites: course 241. Petrographic study of sandstones, with emphasis on relationship to depositional environments, petrologic and paleotectonic reconstructions. S/U or letter grading.


245A-245B-245C. Current Research in Tectonics. (1–1–1) Seminar, one hour. Limited to graduate Earth, planetary, and space sciences students. Seminars presented by staff, outside speakers, and graduate students on current research in tectonics. May be repeated for credit. S/U grading.

248. Advanced Structural Geology. (4) Lecture, three hours; discussion, two hours. Requisite: course 111. Principles governing fracture, fold, and flow of rocks; solutions of structural problems at various scales; regional tectonic problems. S/U or letter grading.

251. Seminar: Mineralogy. (4) Seminar, three hours. Examination of groups of rock-forming minerals (e.g., feldspars), integrating such aspects as crystal structure, crystal chemistry, phase equilibria, and petrogenesis. S/U or letter grading.

252. Seminar: Geochemistry. (4) Seminar, two hours; discussion, two hours. Phase equilibria under crustal conditions, chemistry of ocean waters, recent and ancient sediments, structure and chemistry of upper mantle, geochronology, cosmochemistry, and cosmochemistry. S/U or letter grading.

253. Seminar: Petrology. (4) Seminar, three hours. Problems of igneous or metamorphic petrology; methods of experimental petrology; petrologic metamorphism; diffusion in mineralogic systems; origin of ultramafic rocks and problems of mantle element fractionation among coexisting phases; other current subjects selected by instructor after successful completion of written and oral presentations in seminar forum that varies in focus from general geology to field situations. Digital analysis and interpretation of seismological data, development of algorithms to analyze 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 C173. Letter grading.

259. Seminar: Paleoecology. (4) Seminar, two hours; discussion, two hours. Requisite: course 244. Basin evolution and paleogeography, with emphasis on Phanerozoic of Western U.S. S/U or letter grading.

260. Field Seminar. (2 to 6) Seminar, two hours; discussion, two hours. Topics selected for completion of 200 days. Requisite: course 61. Field-based teaching and discussion forum that varies in focus from general geology through structure and tectonics, sedimentology, igneous and metamorphic petrology, volcanology, or other 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; discussions, three hours; exercises on specific advanced topics in magnetospheric plasma physics. Previous courses examined magnetic storms, magnetospheric substorms, ultraviolet 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. Requisites: course 150. Application of remote-sensing techniques to field situations. Digital analysis and interpretation of near-infrared, thermal-infrared, and microwave data from satellites and aircraft. Field observations, statistical analysis, and reports of testing hypotheses during week between Winter and Spring Quarters. Concurrently scheduled with course C162. S/U or letter grading.

262A3. Solar System Magnetohydrodynamics. (4) Same as Astronomy and Oceanic Sciences C205A. 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 solar wind and planetary magnetospheres and to solar wind/magnetosphere/ionicosphere coupling. S/U for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

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 in talking through problems with others. One key problem is tendency for rote memorization to take precedence over understanding. Discussion of basic problems; students are exposed to the tools and concepts that are appropriate to Earth, planetary, and space sciences, to inculcate physically based reasoning and promote effective on-you-reel communication. Attendance at department colloquium required each week. S/U or letter grading.

265. Instrumentation, Data Processing, and Data Analysis in Space Physics. (4) Lecture, three hours. Principles, testing, and operations of magnetometers and other instruments. Data processing, display, and archiving. Time-series analysis techniques, including filtering and Fourier series, exploratory analysis, and power spectra. S/U or letter grading.

M270A-M270B-M270C. Seminars: Climate Dynamics. (2 to 4 each) (Same as Atmospheric and Oceanic Sciences M270A-M270B-M270C and Geography M270A-M270B-M270C) Seminar, two hours. Archaeological, geochronological, micropaleontological, and stratigraphic evidence for climate change throughout geological past. Rheology and dynamics of climatic subsystems: atmosphere and oceans, ice sheets and marine ice, lithosphere and mantle. Climate of other planets. Modeling, simulation, and prediction of major climatic events. S/U grading.

CM273. Earth Process and Evolutionary History. (6) (Same as Ecology and Evolutionary Biology 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, chemical, and biological events and climate and climate and atmosphere, Earth, and life, with integration of history of science, with emphasis on Darwinian and his contemporaries' contributions. Consideration of major events in history of life on Earth. Data and methods from geology, genetics, and geochronology are integrated to reconstruct past events. This required course is based on previously used textbook and replaces current textbook. May be repeated for credit. S/U or letter grading.

C279. Search for Extraterrestrial Intelligence: Theory and Applications. (4) Lecture, two hours; laboratory, two hours. Required: courses 71, Computer Science 31, Physics 110B, Program in Computing 10A. Search for extraterrestrial intelligence (SETI) is based on number of astronomical, mathematical, statistical, and computational principles. Coverage of fundamental concepts in these disciplines. Focus on SETI searches and architecture of extrasolar planetary systems; radio astronomy, including wave propagation and dispersion; signal processing, including sampling theory and Fourier transforms; from processes of the origin of life and the galactic 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 C179. 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. Dynamical 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. Credit cannot be applied toward major year to year. May be repeated for credit. S/U grading.


287A-287B-287C. Seminars: Seismology and Earth’s Interior. (2–2–2) Seminar, two hours. Problems of current interest in seismology and Earth's interior. May be repeated for credit. S/U or letter grading.
Graduate Degree
The East Asian Studies Program offers the Master of Arts (MA) degree in East Asian Studies.

East Asian Studies Graduate Courses
291A-291B. Variable Topics in East Asian Studies. (4–6) Seminar, three hours. Selected topics on East Asia. May be repeated for credit with topic change, S/U or letter grading.

EAST ASIAN STUDIES
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Kyeyoung Park, PhD (Anthropology, Asian American Studies)
Shu-Mei Shih, PhD (Asian American Studies, Asian Languages and Cultures, Comparative Literature)
Mariko Tamanoi, PhD (Anthropology)
Michael F. Thies, PhD (Political Science)
James Tong, PhD (Political Science)

Scope and Objectives
The Master of Arts degree in East Asian Studies offers an interdisciplinary and highly flexible program of study. With opportunities to take a range of advanced courses in the social sciences and humanities, students are able to tailor their programs to emphasize particular methodological and disciplinary approaches and to focus in depth on the region as a whole and on its dynamics in particular countries. Coursework and language offerings range from the ancient to the contemporary and 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 Degrees

East Asian Studies

- MS Research and Thesis Preparation. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.
- PhD Research and Dissertation Preparation. (2 to 12) Tutorial, to be arranged. S/U grading.

ECOLOGY AND EVOLUTIONARY BIOLOGY
College of Letters and Science
101 Hershey Hall
Box 957426
Los Angeles, CA 90095-7246

Ecology and Evolutionary Biology
310-825-1959, Graduate Office
Graduate e-mail
310-825-1860, Undergraduate Office
Undergraduate e-mail

Karen E. Sears, PhD, Chair

Professors
Michael E. Alfaro, PhD
Priyanga A. Amaraserekara, PhD
Paul H. Barber, PhD
Daniel T. Blumstein, PhD
Donald G. Buth, PhD
Peggy M. Fong, PhD
Malcolm S. Gordon, PhD
Patricia A. Gowaty, PhD
Gregory F. Grether, PhD
Stephen P. Hubbell, 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
Cheryl Ann Zimmer, PhD
Richard K. Zimmer, PhD

Professors Emeriti
AA Barber, PhD
Clifford F. Brunk, PhD
Joseph Cascaran, PhD
Martin L. Cody, PhD
Franz Engelmann, PhD
Arthur C. Gibson, PhD
Elma González, PhD
William M. Hamner, PhD
Henry A. Hespenheide, PhD
J. Lee Kavanau, 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
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, 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Life Sciences 40 or Statistics 13, or Mathematics 31A, 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 153A
2. At least 8 units (two courses) from Ecology and Evolutionary Biology 100, 109, 116, 120 or 185, 121. 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, 162L, 170, CM173, C174, 181. For courses 100L, 109L, 113AL, 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 Molecular, Cell, and Developmental Biology C150/150AL 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, C126, M127 (or Environment M127 or Geography M127), 128, 129, 130, M131 (or Geography M117), 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, 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 CM186), C179, 180A (counts as one-half course), 180B, 181, 185, 186, 187, 196A 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 depart-
mental 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, 124S, or 128P. Atmospheric and Oceanic Sciences M105 (or Ecology and Evolutionary Biology M139) or one course from 102, 103, 104, or 130, Biostatistics 100B, chemistry (except Chemistry and Biochemistry 188SA through 199; Chemistry and Biochemistry 153L is strongly recommended), Earth, Planet, and Space Sciences 116, ecology and evolutionary biology (except Ecology and Evolutionary Biology 188SA through 196), 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 100H, 100H/B, or 100HC, 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 188SA through 199), molecular, cell, and developmental biology (except Molecular, Cell, and Developmental Biology 190A through 199D), Neuroscience 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, M130 (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. 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-di-

vision major requirements must have a minimum of 4 units. A six-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 approach, execution of that approach, and analysis and interpretation of data
- Communication of original scientific work to colleagues and mentors through capstone scientific paper
- Demonstrated communication skills through oral or poster presentation at a symposium
- Display of strong teamwork and problem-solving skills

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 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, 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 within 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 101, 103, 105, 110, 111, 112, 113A, 113AL, 114A, 115, 117, or 130

2. At least 4 physiology units (one course) from Ecology and Evolutionary Biology 162, 162L, 170, or Physiological Science 166. Students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166

3. At least 12 biology, behavior, and evolution units (three courses) from Anthropology 128A, Ecology and Evolutionary Biology 100, 113A, 113AL, 116, C119A, C119B, 120, 121, 122, 126, 128, 129, 130, 133, 135, 136, 137, 142, 144, 151A, 152, 153, 154, 155, 161, 162, CM173 (or Earth, Planetary, and Space Sciences CM173), C174, 175, M178 (or Bioengineering CM186 or Computational and Systems Biology M186 or Computer Science CM186), 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 or Marine Biology Quarter (FBQ), Marine Biology Quarter (MBQ), or preapproved equivalent (see undergraduate adviser)

5. At least 8 units (two courses) from Anthropology 128B, chemistry (except Chemistry and Biochemistry 188SA through 199; Chemistry and Biochemistry 153A and 153L are strongly recommended), Earth, planetary, and space sciences (geology only; except Earth, Planetary, and Space Sciences 188 through 199), ecology and evolutionary biology (except Ecology and Evolutionary Biology 188SA through 196).
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 who are Ecology, Behavior, and Evolution majors, but strict priority is given to students applying for the Marine Biology Quarter. Students must have a 3.0 overall grade-point average. Preference for the Marine Biology Quarter is given to students who wish to specialize in the area of marine biology.

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 fundamentals of ecology, behavior and evolution, or marine biology acquired through coursework
- Development of skills in library research, data interpretation, synthesis, and scientific writing
- Use of current primary scientific literature, including database searches, identification of appropriate sources, and reading and understanding papers
- Understanding of key questions and hypotheses, interpretation of results and conclusions, and discrimination of quality through critique
- Use of knowledge gained for conception and execution of student project that includes self-developed questions and hypotheses, design of appropriate theoretical or empirical/experimental approach, execution of that approach, and analysis and interpretation of data
- Communication of original scientific work to colleagues and mentors through capstone scientific paper
- Demonstrated communication skills through oral or poster presentation at a symposium
- Display of strong teamwork and problem-solving skills

Preparation for the Major

Life Sciences Core Curriculum

Required: Atmospheric and Oceanic Sciences 1 or Earth, Planetary, and Space Sciences 15; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Life Sciences 40 or Statistics 13, or Mathematics 31A, 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 replace courses in either sequence.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students
Transfer applicants to the Marine Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

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

The Major

Students must complete the following courses:

1. Ecology and Evolutionary Biology 109 and 109L
2. At least 4 laboratory units (one course) from Ecology and Evolutionary Biology 101, 105, 110, 112, 136, 170, or 181
3. At least 4 marine organismic biology or physiology units (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), 174, or Physiological Science 166. Students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166
4. At least 4 ecology and behavior units (one course) from Anthropology 128P, Ecology and Evolutionary Biology 100, 116, C119A, C119B, 122, C126, 128, 129, M131 (or Geography M117), 133, 136, 137, 142, 151A, 152, 154, 155, 161, 162, 170, C172, or M178 (or Bioengineering CM186 or Computational and Systems Biology M186 or Computer Science CM186)
5. At least 4 evolution units (one course) from Ecology and Evolutionary Biology 116, 120, 121, 130, 133, C135, 144, CM173 (or Earth, Planetary, and Space Sciences CM173), C174, 175, 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, 101, 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 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 six-unit course counts as one course on the requirements for the major.

As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 13 or equivalent. Preference for the Marine Biology Quarter is given to Ecology, Behavior, and Evolution majors, and Marine Biology majors. Students must complete Ecology and Evolutionary Biology 109 and 109L prior to participating in the Marine Biology Quarter. Contact the Undergraduate Advising Office for all requirements for the Marine and Field Biology Quarters.

Field Biology
The department offers two quarter-long programs of advanced courses in field biology: the Field Biology Quarter (FBQ) and the Marine Biology Quarter (MBQ). These programs focus on the biology of organisms living in their natural environments, emphasize independent student research projects, and take place at field sites away from the UCLA campus. The course composition varies somewhat from year to year, but each program always carries 16 units of course credit. The Field Biology Quarter involves some combination of Ecology and Evolutionary Biology 103, 113B, 114B, 115, 118, 124A, 124B, 125, C126, 132, 134B, and 151B.

The Marine Biology Quarter includes some combination of Ecology and Evolutionary Biology 102, 106, 123A, 123B, 147, 148, 163, 164, 165, and 182. The Field and Marine Biology Quarters may occur during fall, winter, or spring quarter, depending on location and facility participation. To participate, students must enroll in all courses in the respective program. Participants in both programs are selected by personal interview. Information and applications are available in the Undergraduate Advising Office.

Honors Program
An overall grade-point average of 3.4 and a 3.4 in the major are required for graduation with honors. Highest honors are awarded to majors who have a GPA of 3.6 overall and a 3.6 in the major at graduation and who have successfully completed Ecology and Evolutionary Biology 198A and 198B.

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 10B (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), 129, M131 (or Geography M117), 142, 151A, 152, 153, 154, 155, 161, 162, 162L, C174, 176, 180A, 180B, Geography 102, 104, M106 (or Atmospheric and Oceanic Sciences M106), M107 (or Environment M114), 108, M109, 111, 113, M127, M131 (or Environment M130), 135. Courses completed as part of the Field Biology Quarter and Marine Biology Quarter may be applied if not taken to fulfill a field quarter requirement; consult with the undergraduate counselors for more information. A maximum of two upper-division Geography courses may be applied to the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Transfer credit for any of the above is subject to departmental approval; consult with the undergraduate counselors before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Evolutionary Medicine Minor
The Evolutionary Medicine minor is designed for students who wish to augment their major program of study with courses that combine the disciplines of ecology and evolutionary biology, anthropology, psychology, and zoology with medicine to create new paradigms for investigating and understanding disease. The minor provides students with a greater depth of experience and understanding of the integration of evolutionary biology and medical education.

To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better), (2) have completed Life Sciences 1 or 7B, Ecology and Evolutionary Biology 100, and 120 or 185 with minimum grades of C or better, and (3) submit a petition 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 advisors before enrolling in any courses for the minor.
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 (CPhil), and Doctor of Philosophy (PhD) degrees in Biology.

Ecology and Evolutionary Biology

Lower-Division Courses

10. Plants and Civilization. (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 crises. Research by students of specific conservation issues and presentation of results to class. P/NP or letter grading.

13. Evolution of Life. (4) Lecture, three hours; discussion, one hour. Not open to life sciences majors. Limited to 100 students. Introduction to biology within framework of evolutionary theory. Relationships of evolutionary thought to other areas of knowledge and society. Natural selection and origin of variation examined at molecular, cellular, physiological, phylogeny, population dynamics, behavior, and ecology. Emphasis on critical role of historical processes. P/NP or letter grading.

17. Evolution for Everyone. (5) Lecture, three hours; discussion, two hours. Exploration in detail of Darwinian natural selection, with emphasis on evidence and implications for modern problems people and societies face, including global resistance, insect resistance to pesticidal and cockroaches to insecticides 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 grants. Major challenges to be faced in this century, including need to find interdisciplinary and collaborative solutions to world’s worsening environmental problems (e.g., global climate change, biodiversity loss, deforestation, pollution, declining water resources, declining fisheries). Environmental literacy to equip students to become leaders in growing green economy and to help forge solutions to current and future environmental crises that threaten natural resource base. 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 sciences by developing critical thinking and illuminating many paths of discovery at UCLA. P/NP 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 to 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, with emphasis on their effects on organisms. P/NP or letter grading.

50. Desert Life. (4) Lecture, three hours; laboratory, two hours. Introduction to fundamental structural, physiological, and behavioral features of desert organisms, with special emphasis on deserts of Western North America. P/NP or letter grading.

89. Honors Seminars. (1) Tutorial, 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, one hour. 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 designed to ship supervised by Center for Community Learning, fieldwork site, and faculty adviser. Consult Undergraduate Office for more information. May be repeated twice. Individual contract with supervising faculty member required. P/NP grading.

96. Communicating Science: Bringing Complex Concepts to Life. (2) Seminar, three hours. Limited to Ecology and Evolutionary Biology Department majors. Development of tools for research, 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 and workshops to enhance student success in sciences by acquainting students with practical opportunities available to participate in research as undergraduate students, and careers available to students with science degrees. P/NP grading.

97XC. AAP Freshman Seminar: Navigating in Science Majors and Careers. (1) Seminar, one hour. Limited to science majors in Academic Advancement Program (AAP) who took Mathematics 1 in fall term. Seminar of lectures, workshops, and discussions is designed to enhance student success in sciences by developing critical academic survival skills, acquainting students with campus resources, introducing students to practice of science, and highlighting opportunities available to participate in research as undergraduate students. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. 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 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 course 118, C119A, C119B, 122 through C126, 129, 132 through 134B, 136, or 151B. Introduction to methods and topics in ecology and behavior. Growth and regulation of populations, organization of communities and ecosystems, biogeography, and behaviors animals use to find food, choose mates, and interact in social groups. Letter grading.

100L. Introduction to Ecology and Behavior Laboratory. (4) Laboratory, four hours. Requisites: course 100 (may be taken concurrently), Life Sciences 1 or 7B. Introduction to research methods in ecology and behavior, resulting in independent research proposals and to gain understanding of scientific method, critical evaluation of research papers, and development of scientific writing skills. Work in small groups and off-campus meetings. To apply this course to the Biology upper-division major laboratory requirement, the corresponding lecture course must be completed with a passing grade. Letter grading.

101. Marine Botany. (6) Lecture, four hours; laboratory, six hours; three to four field trips. Requisite: Life Sciences 1 or 7B. Introduction to biology and ecology of marine plants, including algae, sea grasses, and mangroves, with focus on form and function of marine plants and their ecological role in different marine habitats and ecosystems. Letter grading.


103. 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, including evolution and 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 and use phylogenetic 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 systematics, evolution, 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: courses 105, Physiological Science 166 (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; weekend field trips. Requisite: course 105 or completion of Marine Biology Quarter. Advanced study of evolution—connection of ancestry and natural selection, animal behavior, and natural history. Introduction to the basic processes of evolution. Letter grading.

109. Introduction to Marine Science. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Strongly recommended for prospective Marine Biologists. Study of student-led critical evaluations of current literature. Examination of the student's professional experiences in the natural history, physiology, biology, and geology of marine organisms and habitats. Letter grading.

110L. Introduction to Marine Science Laboratory. (4) Laboratory, six hours; 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 biology of marine life in various habitats. Letter grading.

111. Vertebrate Morphology. (6) Lecture, three hours; laboratory, five hours. Requisites: Life Sciences 1 or 7B, Life Sciences 23L. Study of vertebrate anatomy, function, and evolution from viewpoint of comparative anatomy of adult forms, biomechanics, development, and paleontology. Laboratory study of selected vertebrate groups. Letter grading.

113A. Herpetology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Recommended requisite: course 120. Exploration and summarization of evolution, ecology, life history, and conservation biology of world's reptile and amphibian fauna. Topics include conservation assessments both globally and in California, discussion sections focused on student-led critical evaluations of current literature, and in-class meetings with professional herpetologists to share their professional experiences and job opportunities. Letter grading.

113AL. Herpetology Laboratory. (4) Laboratory, six hours; field trips. Corequisite: course 113A. Primary focus on learning defining features, biogeography, and natural history of the student's reptile and amphibian fauna, 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. Recommended: courses 100, 111. Two weeks of off-campus research projects followed by two-week lecture course and offered only as part of Field Biology Quarter. Ecology, particularly 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.


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. 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. Not open for credit to students with credit for Environ 121. Study of ecological and evolutionary principles as they apply to protection of species, areas, ecosystems and biodiversity. Discussion sections focus on interactions of science, policy, and economics in conserving biodiversity. Oral and written student presentation on specific conservation issues. Letter grading.

117. Evolution of Vertebrates. (5) Lecture, three hours; laboratory, three hours. Requisite: course 110. Recommended: one general geology course. Fossil record of evolution of vertebrates, with emphasis on paleoecology 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 mechanisms by which vascular plants adapt themselves to their abiotic and biotic environments using community, population, and ecosystem levels of integration. Letter grading.

C119A. Mathematical and Computational Modeling in Ecology. (4) Lecture, three hours; discussion, one hour. Enforced requisite: Life Sciences 30B or Mathematics 31A. Recommended: courses 100, 122, Life Sciences 1, Mathematics 3C. Introduction to modeling dynamics of ecological systems, including formulation and analysis of mathematical models, basic techniques of scientific programming, probability models, 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 C219A, P/NP or letter grading.

C119B. Modeling 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 developed by students. Topics include model formulation, stochastic models, fitting models to data, integration 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. Requisite: course 119B. Recommended: courses 1, 2, 3, 4, 23L, or 7A, 7B, 7C, and 23L, Mathematics 3A and 3B (or 31A or Life Sciences 3CB). Not open for credit to students with credit for course 185. Designed for departmental majors specializing in evolutionary ecology; with emphasis on design and execution of field and laboratory research. 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 theory. DNA replication, RNA transcription, protein synthesis, gene expression, and molecular evolution. Letter grading.

122. Ecology. (4) Lecture, three hours; discussion, two hours. Requisites: courses 1, 2, 3, 4, 23L, or 7A, 7B, Mathematics 3B or 31A or Life Sciences 3CB. Highly recommended: Mathematics 31B, 32A. 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.

123A-123B. Field Marine Ecology. (4 or 8 each) Lecture, five hours; laboratory, 15 hours. Recommended requisites: courses 100, 122. Offered either as 4- or 8-unit five-week intensive course given off campus as part of Marine Biology Quarter. Survey of current topics in marine ecology, including analysis of primary research literature combined with field study of ecology of marine communities, communities, and ecosystems. Original research project required. Letter grading. 123A. In residence at research station located outside continental U.S. 123B. Off-campus research project located within U.S., including Alaska and Hawaii.

124A-124B. Field Ecology. (4 or 8 each) Lecture, five hours; laboratory or field trip, 15 hours. Requisites: courses 100, Life Sciences 1 or 7B. Recommended: courses 111, 120, 122. Offered as part of Field Biology Quarter. Field and laboratory research in ecology; collection, analysis, and write-up of numerical data, with emphasis on design and execution of field and laboratory research. 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. Requisite: course 100, Life Sciences 1 or 7B. Offered either as 4-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.

C125. Behavioral Ecology. (4 or 8) Formerly numbered 126) Lecture, three hours; discussion, two hours. Requisites: course 100, Life Sciences 1 or 7B, Mathematics 3C or 32A or Life Sciences 3CB. Recommended: course 129. Offered either as 4-unit quarter-long course or as 8-unit Field Biology Quarter course. Evolutionary perspective of behavioral ecology, with extended consideration of selfish DNA, conflict with genomes, natural selection and coevolution, kin selection and functioning, cooperation, 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, followed by extended field trip where students do individual projects. Concurrently scheduled with course C222. Letter grading.

M127. Soils and Environment. (4) (Same as Environment M127 and Geography M127) Lecture, three hours; discussion, one hour; field trips. General treat- ment of soils and environment; soil development, morphology, and worldwide distribution of soil orders; physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; management of soils as related to plant growth and distribution. P/NP or letter grading.
136. Ecology, Behavior, and Evolution Laboratory. (8) Lecture, four hours; laboratory, eight hours; field trips, six and one half days per term. Requisites: course 100, Life Sciences 1, Mathematics 3C or 32A. Strongly recommended: course 120 or 122 or 129. Designated for Ecology, Behavior, and Evolution majors. Laboratory and field exercises on population genetics, growth, and regulation; competition and predation; behavioral interactions; species’ diversity and distribution; and population genetics. Lecture, synthesis of models and computer simulations to laboratory and garden experiments to fieldwork. Mandatory field trips, including two weekend trips. Letter grading.

137. Evolutionary Genetics. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, 14BL, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL, Life Sciences 1, 2, 3, 23L. Chemical signals are most important means by which organisms communicate. Exploration of how chemical signals are produced, transported, and influence behavior of microbes, plants, and animals. Synthetic approach, with emphasis on applications to cell biology, physiology, and ecology. P/NP or letter grading.

139. Introduction to Chemical Oceanography. (4) (Same as Atmospheric and Oceanic 129) Lecture, three hours, laboratory, one hour. Introductory course for physical sciences, life sciences, and engineering majors interested in oceanic environment. Chemical composition of oceans and nature of physical, chemical, and biological processes governing this composition in past and present. Cycles of major and minor oceanic constituents, with focus on those that are most important for life (i.e., carbon, nitrogen, phosphorus, silicon, and oxygen). Investigation of primary production, export production, remineralization, diagenesis, air-sea gas exchange processes. Letter grading.

142. Aquatic Communities. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Overview of species and communities in marine and freshwater environments. Exploration of interactions of physical and biological factors that shape communities and how scientists test hypotheses. Emphasis on critical reading of primary literature. Letter grading.

143. History of the California Coast. (5) Lecture, three hours; laboratory, three hours; field trips, 15 days. 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 project during extended field trip. Letter grading.

144. Mammalian Behavior. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, 14BL, and 14D, or 20A, 20B, and 20L, Life Sciences 1. Recommended: Life Sciences 1 or 7B. Introduction to field and laboratory techniques used to make discoveries about plant adaptation. Letter grading.

145. Advanced Paleontology. (4) (Same as Earth, Planetary, and Space Sciences M118.) Lecture, three hours. Requisite: course 100. Survey of history of life as illustrated in fossil record of California. Examination of major groups of organisms from ocean and land from earliest fossil record of California. Emphasis on how faunas have changed over time, especially during periods of diversification and extinction. Influence of major events of geologic history and climatic phenomena observed in fossil record on evolution of closely related communities related to environmental change on human timescales. Emphasis on how scientists collect and evaluate fossil data through understanding of living organisms. Letter grading.

146. Biogeography. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L. Life Sciences 1, 2, 3, 23L. Techniques of biogeography, forest structure, plant growth forms, animal communities, and dispersal dynamics, and disturbance regimes. P/NP or letter grading.

151A. Tropical Ecology. (4) Lecture, one hour; discussion, two hours. Requisite: Life Sciences 1 or 7B. Broad introduction to biodiversity, community structure, and dynamics and ecosystem function of range of tropical forest habitats. Discussion of such themes as biomeography, forest structure, plant growth forms, animal communities, and dispersal dynamics, and disturbance regimes. P/NP or letter grading.

151B. Field Tropical Ecology. (8) Lecture, three hours; fieldwork, five hours. Requisites: course 100, Life Sciences 1 or 7B. Two weeks of off-campus research projects followed by two-week lecture course, and offered only as part of Field Biology Quarter. Introduction to biodiversity, community structure, and dynamics and ecosystem function in tropical forest habitat. Letter grading.

152. World Vegetation Ecology and Ecophysiology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Diversity of physiological and ecological adaptations in biomes of world, explaining distribution and dynamics of world vegetation types. Focus on processes across scales from cells to ecosystem to globe, instrumentation for environmental and ecophysiological measurements, and experiments using these discoveries about plant adaptation. Letter grading.

153. Physics and Chemistry of Biotic Environments. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L, Life Sciences 1. Recommended: Life Sciences 2, 3, 4, 23L, Physics 6A. Chemical and physical principles that are critical to functional responses of organisms to their habitats. Focus is integrative, providing comprehensive training in basic sciences of physics and chemistry as applied to environmental processes, and consequences of these processes for individual performance, populations, and communities. Covers variety of topics in applied chemistry, including proton pumps, carbonate biogeochemistry and ocean acidification, and allometric scaling of metabolism and effects of temperature on physiological function. Fundamentals of boundary-layer physics and their role in organisms’ life history. Physics as natural life process, including how organism’s metabolism and distribution and dynamics of life depend on it (e.g., respiratory, excretory, and locomotor processes). P/NP or letter grading.

154. California Ecosystems. (5) Lecture, three hours; laboratory or field trip, four hours. Requisite: Life Sciences 1 or 7B. Recommended: course 100. Introduction to structure, biodiversity, and dynamics of California ecosystems, with focus on Southern California, and impact of human activities on these systems. P/NP or letter grading.

155. Community Ecology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Recommended: course 100 or 122. Community ecology is study of biodiversity in ecological context: structure and dynamics of assemblages in space and time, and ecological and evolutionary mechanisms that determine which species are present or absent from particular assemblages. Examination of existing theories of community organization and evidence, both observational and experimental, bearing on these theories. Consideration of diversity of communities—plant, animal, microbial, terrestrial, and marine—how ecosystems respond now and will respond in future to anticipated global change, and conservation implications of these changes. Letter grading.
156. **Biological and Social Justice.** (4) Lecture. Four hours. Consideration of intersection of biological discovery and human society to better understand how scientific advances have both promoted and mitigated social inequality. Letter grading.

160. **Introduction to Plant Biology.** (4) Lecture, three hours; laboratory, 15 hours. Not open for credit to students with credit for course 162. Introduction to aspects of plant biology. Topics include plant body, reproduction, plant diversity, gene expression, and basic plant physiology. 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 major adaptations, communities, and global processes. Topics include plant form and function, 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; discussion, one hour. Requisites: Life Sciences 1, 2, 3, and 23L, or 7A, 7B, 7C, and 23L. Basic aspects of plant function including biochemistry, cellular, and physiological aspects of photosynthesis. Carbon and nitrogen metabolism and its regulation; organellar interactions and compartmentation. Water relations, ion transport, flooding, plant hormone action, and plant responses to stress. Letter grading.

162L. **Plant Physiology and Ecophysiology Laboratory.** (4) Laboratory, 12 hours. Requisites: course 152 or 162; life sciences 1, 2, 3, and 4, or 7A, 7B, 7C, 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 appreciation of plant function, including dynamic processes of growth, development, and reproduction. Exercises provide training in approaches and instrumentation such that students become scientists, applying biological questions to answer questions on plant function, including use of programs such as FunAnatomy (plant anatomy) and FastPlant (growing experiments). 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.

163. **Biology of Marine Tetrapods.** (4) Lecture, five hours; laboratory and fieldwork, 15 hours. Requisites: Chemistry 1A, 14B, and 14BL, or 20A, 20B, 20L, and 30AL, Life Sciences 1, 3, and 23L, or 7A, 7B, 7C, and 23L. Highly recommended: course 111. Five-week intensive course offered as part of Marine Biology Quarter. Survey of higher vertebrates living in marine habitats, including estuarine amphibians, marine reptiles, seabirds, and marine mammals. Laboratory emphasis on biological and experimental approaches to study of morphology, systematics, ecology, and behavior of local marine birds and mammals. Given off campus at marine science center. Letter grading.


165. **Ecological Physiology of Marine Vertebrates.** (4) Lecture, five hours; laboratory, 15 hours. Requisites: Chemistry 14B and 14BL, or 20B and 30AL, Life Sciences 1, 3, and 23L. Recommended: Life Sciences 30B or 30BL, or Physics 1C and 4BL. Five-week intensive course offered only as part of Marine Biology Quarter. Introduction to physiological adaptations of marine vertebrates to major physicochemical variables in world oceans and to major marine habitats. Given off campus at marine science center. Letter grading.

166. **Biology of Marine-Land Interface.** (4) Lecture, five hours; fieldwork, 15 hours. Enforced requisites: courses 109, 109L, Chemistry 1A, 14B, 14BL (or 20A, 20B, 20L), Life Sciences 1, Physics 6A. Statistics 13. Recommended: Life Sciences 2, 3, 4. Land-sea interface is one of most biologically rich, yet challenging habitats on Earth. Organisms must contend with wide range of environmental conditions, including extreme variations in temperature, oxygen, pH, ultraviolet radiation, salinity, stress, and water availability. These habitats are among best natural laboratories for investigating patterns and processes of organism-environment interactions. Basic training in characterization of chemical and biological environmental features to establish basic tenets of organismal performance, as well as population and community dynamics in response to extreme environmental conditions. Analytical new linkages between chemistry, physics, and biology through lecture, laboratory, and field investigations. Offered as part of Marine Biology Quarter. Letter grading.

170. **Animal Environmental Physiology.** (8) Lecture, three hours; laboratory, six hours. Requisites: Chemistry 14D or 30B and 30BL, Life Sciences 1, 2, 3, and 4, or 30B and 30BL, 23L, Mathematics 3C or 32A or Life Sciences 30B, Physics 1C and 4BL, or 6C or 6CH. Not open for credit to students with credit for Physiological Science 166. Designed for Ecology, Behavior, and Evolution majors. Introduction to physiology (function) of animals of varying systems with emphasis on environmental interactions and ecological adaptations. Letter grading.

C172. **Advanced Statistics in Ecology and Evolutionary Biology.** (4) Lecture, two hours; laboratory, two hours. Overview of advanced statistical methods that go beyond linear models and mean comparison, including bootstrapping, permutation tests, Bayesian statistics, mixed models, clustering, and network analysis. At course end students should be able to explain which statistical approaches are appropriate for different types of research questions and critically evaluate their outputs. All statistical analysis conducted in R. Concurrently scheduled with course C202. P/NP or letter grading.

CM173. **Earth Process and Evolutionary History.** (8) (Same as Earth, Planetary, and Space Sciences CM173.) Lecture, four hours; laboratory, three hours. Requisites: Chemistry 1A, 14A, or 14B or 20A, 20B, 20L, Life Sciences 1, 2, 3, and 4, or 7A, 7B, 7C or 7A and introductory course in geology). 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. 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 life on Earth. Data and methods from geology, genetics, and geochronology are integrated to reconstruct past events. This reveals how Earth processes shaped life and how life shaped Earth. Concurrently scheduled with course CM228. Letter grading.

C174. **Comparative Biology and Macroevolution.** (4) Lecture, three hours; laboratory, 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 body shapes evolve? What are dynamics of evolutionary arms race? Why are there so many species in tropics? Why are there so many beetles and so few crocodiles? Did dinosaurs put brakes on diversification of mammals? Examination of why life is essential for understanding patterns of biological diversity and how phylogenetic comparative methods are used to test macroevolutionary hypotheses. Concurrently scheduled with course CM228. Letter grading.

175. **Evolutionary Dynamics of Sex.** (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Fitness dynamics of reproduction when females and males are in conflict over reproductive investment—a conflict that is essential to understanding human examples as appropriate. Emphasis on natural selection thinking, sexual selection, and origins of sexual conflict, including Fisherian sex allocation, evolution of manipulation through deceptiv communication, and theory of Darwinian sexual conflict. Letter grading.

176. **Ecological Ethics.** (4) Seminar, four hours. Requisite: Life Sciences 1 or 7B. Debates and discussions on current ethical considerations relevant to fields of ecology, evolution, conservation, and behavior. Letter grading.

C177. **Practical Computing for Evolutionary Biologists and Ecologists.** (4) Lecture, three hours; laboratory, six hours. Requisite: R programming. Introduction to computational thinking and critical thinking skills in R and ideally Python. Basic programming and scripting in Python as well as data management, network analysis, 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 CM186, and Computer Science CM186.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic biosystems modeling and computer simulation of biologic/biomedical processes and systems at multiple levels of organization. Control system, multicompart- mental, predator-prey, pharmacokinetic (PK), pharmacodynamics (PD), and modeling of HIV and modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismic levels. Both theory- and data-driven modeling, with focus on building and testing tools. Emphasis on building tools 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.

C179. **Communicating Science to Informal Audiences.** (5) Lecture, three hours; discussion, one hour; laboratory or fieldwork, two hours. Requisite: one quarter 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 practice communicating scientific knowledge and receive mentoring on how to improve their presentations to develop ocean science literacy at all levels and to encourage broad public understanding of science and 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 have limited understanding of how natural world works. Concurrently scheduled with course C237. Letter grading.

180A-180B. **Seminars: Biology and Society.** (2–4) Seminar, two hours (course 180A) and four hours (course 180B). Investigations and discussions of current socially important issues involving substantial biologic and social considerations, either for a studying biologic/biomedical processes and systems at multiple levels of organization. Control system, multicompart- mental, predator-prey, pharmacokinetic (PK), pharmacodynamics (PD), and modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismic levels. Both theory- and data-driven modeling, with focus on building and testing tools. Emphasis on building tools 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.

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 infectiousness, symbiosis, and parasitism, emphasizing protozoan and helminth parasites, including those of humans.

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 interaction involving intertidal fish hosts. Laboratory includes collection and preparation techniques. Given off-campus at marine science center. 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 medical or evolutionary medicine. Introduction to mechanics 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, obsessive-compulsive and eating disorders, all contemporary medical issues have evolutionary roots. Understanding the evolutionary thought processes faced by physicians, veterinarians, psychologists, and other healthcare providers. Development of awareness and understanding of evolutionary roots of these disorders provides future healthcare providers with expanded perspective that enhances their practice and benefits their patients in whatever field they enter. Letter grading.

187. Variable Topics in Ecology and Evolutionary Biology. (2–4) Lecture, two to four hours; discussion, one hour. Requisites: Life Sciences 1, 2, 3, 4, 23L. Investigation, discussion, and study of current important issues involving substantial biological considerations in ecology and evolutionary biology. Contact Undergraduate Advising Office for current topics. May be repeated 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 or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. 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.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit to broaden honors credit requirements. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Ecology and Evolutionary Biology. (1) Seminar, one hour. Designed to bring together research projects undertaken 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 issues in research in ecology and evolutionary biology. Schedule of assessed topics and instructors. If content is approved in advance by Undergraduate Advising Office, undergraduate 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), 8 hours (course 192B). Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students in assisting with courses related to biology. Students assist in preparation of materials in introductory courses such as topics and instructors. If content is approved in advance by Undergraduate Advising Office, undergraduate 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.


194A. Research Group or Internship Seminars: Access to Research Careers. (2) Seminar, six hours. Accessions for juniors/seniors in research traineeships or those who have strong commitment to pursue graduate studies in molecular, biochemical, physiologic, or biomedical fields. Weekly presentation and discussion of current literature. No more than 4 units may be applied toward departmental majors. May be repeated for credit. Letter grading.

194B. Research Group or Internship Seminars: Ecology and Evolutionary Biology. (1) Seminar, two hours. Corequisite: one course from 198A through 198D or 199. 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 use of specific research methods and current literature in field or of research of faculty members or students. May be repeated for credit. Letter grading.

195. Community or Corporate Internships in Ecology and Evolutionary Biology. (4) Tutorial, 12 hours. Internship course for juniors/seniors to be supervised by Center for Community Learning, fieldwork site, and faculty adviser. Consult Undergraduate Advising Office for more information. Students meet on regular basis with instructor and provide periodic reports of their experience. May not be applied toward requirements for departmental majors. May be repeated twice for credit. Individual contract with supervising faculty member required. P/NP grading.

196. Research Apprenticeship in Ecology and Evolutionary Biology. (2 to 4) Tutorial, 12 hours. Internship course for juniors/seniors to be supervised by Center for Community Learning, fieldwork site, and faculty adviser. Consult Undergraduate Advising Office for more information. Students meet on regular basis with instructor and provide periodic reports of their experience. May not be applied toward requirements for departmental majors. May be repeated twice for credit. Individual contract with supervising faculty member required. P/NP grading.

196A-198D. Honors Research in Ecology and Evolutionary Biology. (4 each) Tutorial, 12 hours. Limited to juniors/seniors. Supervised individual research designed to broaden honors scholar's knowledge of some phase of biology. Must be taken with Ecology and Evolutionary Biology Department faculty for at least two terms and for total of at least 8 units. Eighteen units for junior honors research. Sixteen units for senior honors research. Individual contract required. In Progress (198A) and letter (198B) grading. Students may elect to enroll in additional research through courses 198C and 198D (letter grading). Report on progress must be submitted to research professor. Letter graduation. May be repeated for credit. S/U or letter grading.

197. Directed Research in Ecology and Evolutionary Biology. Seminar, 12 hours. Directed research can only be done under guidance of faculty mentor. May be applied toward individual contract required. P/NP or letter grading.

199. Directed Research in Ecology and Evolutionary Biology. (4) Seminar, 12 hours. Directed and supervised individual research. May be repeated for credit. S/U or letter grading.

200B. Ecology. (4) Lecture, two hours; discussion, two hours. Principles and current topics in ecology. Topics may include island 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 field of behavioral ecology. Topics include introduction to variety of research pursuits in field and questions and debates at leading edges of research. Advanced interdisciplinary primer that spans topics from mechanisms of behavior at molecular and cellular levels to consequences of behavior for Darwinian fitness and ecological and evolutionary processes. S/U or letter grading.

201. Introduction to R for Ecology and Evolutionary Biology. (4) Lecture, six hours; discussion, six hours. Designed for departmental PhD students. Offered as intensive two-day course at beginning of term. Introduction to R language. Topics include writing at command line, writing scripts and functions, flow control, graphics, and conducting basic simulations in discrete and continuous time. S/U grading.

202. 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 variation. Includes regression, linear and generalized linear models, Bayesian statistics, mixed models, clustering, and network analysis. At course end students should be able to explain which statistical approaches are appropriate for different types of research questions and critically evaluate their outputs. All statistical analysis conducted in R. Concurrently scheduled with course C172. S/U or letter grading.

203. Marine Botany and Physiology. (4) Lecture, two hours; discussion, one hour; laboratory, six hours; experimental project. Designed for graduate students. Structure, reproduction, life history, and biology of marine algae, with emphasis on physiological ecology and biochemistry. Techniques in culture and physiological, ecological, and biochemical investigation of algae. Given off campus at marine science center. S/U or letter grading.

204. Advanced Marine Zoology. (4) Lecture, four hours; discussion, one hour. Consideration of current research in experimental phycolgy. Topics include discussion of appropriate aspects of chemical and physical oceanography and limnology; algal physiology, biology, and ecology; and the roles of algae in ecological, physiological, and biogeochemical processes in ocean and freshwater habitats. S/U or letter grading.

205. Marine Invertebrate Biology. (4) Lecture, four hours; laboratory, eight hours. Functional morphology, life histories, and systematics of marine invertebrates of all major and most minor taxa; emphasis on living animal and its habitat. Given off campus at marine science center. S/U or letter grading.

206. Advanced Ichthyology. (4) Lecture, three hours; laboratory, three hours. Requisite: course 111 or 112. Advanced study of various aspects of fish biology. Theme varies from year to year. May be repeated for credit. S/U or letter grading.

208. Advanced Vertebrate Morphology. (4) Lecture, two hours; laboratory, eight hours. Requisite: course 110. Emphasis on functional approach to evolution of vertebrate locomotor, feeding, and circulatory systems. Laboratory includes comparative and experimental analyses of morphological adaptation. Independent project required. May be repeated once for credit. S/U or letter grading.

209. Behavior of Arthropods. (4) Lecture, three hours; discussion, one hour. Advanced study of topics in behavior of terrestrial arthropods, including communication, feeding, and resident or social behavior. Emphasis on both mechanistic and adaptive approaches toward understanding behavior. Independent project required. S/U or letter grading.

Graduate Courses

M200A. Evolutionary Biology. (4) Same as Earth, Planets, and Space Sciences M216E. Lecture, two hours; discussion, two hours. Current concepts and topics in evolutionary biology, including microevolution, speciation and species concepts, analytical bio-
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, function, and energetics of marine communities; behavior, population dynamics, and biogeography of component species; associated oceanography and technology. Given off campus at marine science center. S/U or letter grading.


C219A. Mathematical and Computational Modeling in Ecology. (4) Lecture; three hours; discussion, one hour. Enforced requisite: Life Sciences 30B or Mathematics 3B or 31A. Recommended: courses 100, 110, 122, 131B, 163, 174B, 178B, and Mathematics 51. Instruction to modeling dynamics of ecological systems, including formulation and analysis of mathematical models, basic techniques of scientific programming, problem solving and model building, and methods to relate models to data. Examples from ecology but techniques and principles applicable throughout life and physical sciences. Concurrently scheduled with course C219A. S/U or letter grading.

C219B. Modeling Ecological Research. (4) Lecture; two hours; discussion, two hours. Requisite: course C219A. Advanced techniques in mathematical and computational modeling of ecological dynamics and other 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 Epidemiology M226.) Lecture; four hours. Enforced: Epidemiology 220. Mitigation of bioterrorism falls outside traditional public health programs and public health graduate education. Because of seriousness of such threats, it is important that individuals trained in public health understand problems and responses. Letter grading.

CM228. Earth Process and Evolutionary History. (8) (Same as Earth, Planetary, and Space Sciences CM228.) Lecture, four hours; laboratory, three hours. Requisites: Chemistry 1A, 1B, or 20A, 20B, Life Sciences 1, 2, 3, 4, or 7A, 7B, and 7C or 7A and introductory course in geology). Exploration of relations between biological processes, such as tec-tonics 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, evolution, and implications of human evolution. Topics include plate tectonics, continental drift, and patterns of biodiversity. S/U or letter grading.

C235. Population Genetics. (4) (Formerly numbered 235B.) Lecture; three hours; discussion, one hour. Basic principles of genetics of population, dealing with genetic structure of natural populations and mechanisms of evolution. Equilibrium conditions and forces causing differing allele frequencies; population dynamics, and methods of quantitative genetics. Concurrently scheduled with course C135. S/U or letter grading.


C237. Communicating Science to Informal Audiences. (6) 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, Environmental Science 1, 7B, or 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 La Kretz Aquarium. Students practice communicating scientific knowledge and receive mentoring on how to improve their presentations to develop ocean science literacy for all levels and public understanding of science and environmental stewardship. Need for young scientists to learn how to communicate about their science to audiences is especially critical. Open to seniors. Open to undergraduates and seniors. Considered that Americans are expected to comprehend and respond to increasingly complex issues, such as global climate change, with limited understanding of how natural world works. Concurrently scheduled with course C179. Letter grading.

M238. Ocean Biogeochemical Dynamics and Climate. (4) (Same as Atmospheric and Oceanic Sciences M238.) Lecture; three hours; discussion, one hour. Introduction of ocean biogeochemical cycles with physical climate system. Biogeochemical processes controlling carbon dioxide and oxygen in oceans and atmospheres over time-scales of centuries to several years. Anthropogenic perturbation of global carbon cycle and climate. Response of ocean ecosystems to past and future global changes. Use of isotope studies to study ocean biogeochemical cycles and climate. Interactions between biogeochemical cycles on land and in ocean. S/U or letter grading.

240. Physiology of Marine Animals. (4) Lecture; four hours; discussion, one hour. Designed for graduate students. Lecture and laboratory; study of cellular, tissue, organ, and animal physiology; 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. Requisites: course 100, Life Sciences 1 or 7B, Mathematics 3C or 32A or Life Sciences 30B. Recommended: course 129. Evolutionary perspective of behavioral ecology, with extended consideration of selfish DNA, conflict with genomes, natural selection and coevolution, kin selection and diversity in group functioning and cooperation, social learning, and other models of analysis of large data sets 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 genetics to managers. S/U grading.

C234. 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 C177. Letter grading.

C235. Population Genetics. (4) (Formerly numbered 235B.) Lecture; three hours; discussion, one hour. Basic principles of genetics of population, dealing with genetic structure of natural populations and mechanisms of evolution. Equilibrium conditions and forces causing differing allele frequencies; population dynamics, and methods of quantitative genetics. Concurrently scheduled with course C135. S/U or letter grading.

ECONOMICS
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Emeritus
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Martin B. Hackmann, PhD
Edward C. Kung, PhD
Zhipeng Liao, PhD
Jay Y. Lu, PhD
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.

**Scope and Objectives**

**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 Bunch 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, 130B, 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 corequisite.

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).

**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, (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 must meet the admission screening requirements. For information, contact Undergraduate Admission.

Preparation for the Major
Required: Economics 1, 2, 11, 41, 101; 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 economics and management (no more than three management courses from Management 108, 120A, 120B, 122, 123, 124, 126, 127A, 127B, 130A, 130B, 140 may be applied toward the elective requirement). In addition to Economics 103 and 103L, at least two economics courses with laboratories must be completed and may be selected from either the Economics 106 series or an economics elective.

Each upper-division major course must be taken for a letter grade. Transfer credit for any of the major courses is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major. Laboratory courses are required for all upper-division economics courses when they are offered and listed as mandatory corequisites.

To graduate, students must have a minimum 2.0 grade-point average in their upper-division major courses, with at least a C- in each course. (Economics 101 applies on the preparation for the major, therefore requiring a minimum grade of C.)

Mathematics/Economics BS

See the Mathematics/Economics interdepartmental program section for a description of the major.

Honors Program

The departmental honors program is open to majors in Economics and Business Economics who have a cumulative grade-point average of at least 3.5 in the major and in all courses taken at UCLA prior to application.

To qualify for departmental honors at graduation, students must (1) select at least seven of the required upper-division economics courses from the approved list designated for departmental honors, (2) complete a two-term senior thesis acceptable to the departmental honors committee in Economics 198A and 198B, and (3) complete the major requirements with at least a 3.5 grade-point average in the economics courses. Highest honors are awarded at the discretion of the departmental honors committee based on grade-point average and quality of the senior thesis.

Economics 198A and 198B, the courses required for thesis preparation, may be counted as upper-division courses toward the field in which the thesis is written for purposes of satisfying the requirements for the major. More information and application forms are available from an undergraduate counselor in 2263 Bunche Hall.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Economics offers Master of Arts (MA), Candidate in Philosophy (CPHIL), and Doctor of Philosophy (PhD) degrees in Economics and a self-supporting Master of Applied Economics (MAE) degree.

Economics

Lower-Division Courses

1. Principles of Economics. (4) Lecture; three hours; discussion, one hour. Not open to students with credit for former course 100. Introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis on allocation of resources and distribution of income through price system. P/NP or letter grading.

2. Principles of Economics. (4) Lecture; three hours; discussion, one hour. Enforced requisite: course 1. Not open to students with credit for former course 100. Introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis on aggregate economics, including national income, monetary and fiscal policy, and international trade. P/NP or letter grading.

5. 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 set of concepts with which 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.

11. 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.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

41. Statistics for Economists. (4) Lecture, three hours; discussion, one hour. Enforced requisites: Mathematics 31A, 31B. Not open to students with credit for former Statistics 11. Introduction to probability and statistics for economists, with emphasis on rigorous arguments. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Economic Toolkit. (4) Lecture, three hours. Coverage of essential mathematical and programming skills needed for study of Economics. Review of calculus (first derivatives, partial derivatives, elementary integration), Excel (handling data, use of Solver), and extended introduction to statistical language R and/or Stata. Consult instructor for specific software. Offered in summer only. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week, per unit. Entry-level research for 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. Introduction to Econometrics. (4) Lecture, three hours; discussion, one hour. Requisite: courses 11, 41 or Mathematics 170A or Statistics 109A. Enforced corequisite: course 103L. Introduction to theory and practice of econometrics, with goal to make students effective consumers and producers of empirical research in economics. Emphasis on intuitive understanding rather than on rigorous arguments; concepts illustrated with applications in economics. P/NP or letter grading.


106A. Economics in Practice. (4) Seminar, three hours. Enforced requisites: courses 111, 101, 102. Enforced corequisite: course 106AL. Students, in groups of four, address three small problems and one large and complex problem. Discussion of problems, presentation to other groups. Use of appropriate data analysis and presentation of results. Written final and oral presentations required. P/NP or letter grading.

106AL. Economics in Practice Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 111, 101, 102. Enforced corequisite: course 106AL. Case-based analysis. Students, in groups of four, prepare a small paper on a topic of their choice, discussing the steps involved in the data collection and analysis. P/NP or letter grading.


106D. Designed Markets. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111, 101, 102. Enforced corequisite: course 106DL. Discussion of designed markets and other institutions that were purposefully designed, mostly by economists. Choice design experiments. Topics include matching and sorting in online markets, reputation in financial markets, and other institutions. Hands-on data collection and problem solving. Letter grading.


106FBL. Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 106. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106G. Introduction to Game Theory. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 101. Enforced corequisite: course 106G. Enrolment priority to Business Economics majors. Introduction to basic ideas of game theory and economic applications. Topics include ideas such as dominance, backward induction, Nash equilibrium, commitment, credibility, asymmetric information, and signal game with application examples from economics, politics, business, and other real-life situations. Letter grading.

106GL. Introduction to Game Theory Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106GL. Case-based analysis requiring students to apply theory from course 106G to real-world problems involving linear programming and strategic thinking. Hands-on data collection and problem solving and presentation of student analyses in writing or in oral presentations. P/NP or letter grading.

106H. Organization of Firms. (4) Lecture, three hours. Enforced requisites: courses 111, 101, 102. Enforced corequisite: course 106H. Case-based analysis requiring students to apply theory from course 106H to data collection and problem solving and presentation of student analyses in writing or in oral presentations. P/NP or letter grading.

106I. Organization of Firms Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced corequisites: courses 111, 101, 102. Enforced corequisite: course 106IL. Hands-on data collection and problem solving and presentation of student analyses in writing or in oral presentations. P/NP or letter grading.

106J. Investments. (4) Lecture, three hours. Requisite: course 101. Enforced corequisite: course 106J. Introduction to basic ideas of investment analysis. 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, and trading financial assets. Hands-on data collection and problem solving and presentation of student analyses in writing or in oral presentations. P/NP or letter grading.

106PL. Pricing and Strategy Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced corequisites: courses 111, 101, 102. Enforced corequisite: course 106PL. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106P. Pricing and Strategy. (4) Lecture, three hours. Requisite: course 101. Enforced corequisite: course 106P. Requisite: course 106PL. Enrolment priority to Business Economics majors. Topics include matching between medical residents and hospitals, kidney transplants, markets and other institutions that were purposefully designed, mostly by economists. Choice design experiments. Topics include matching and sorting in online markets, reputation in financial markets, and other institutions. Hands-on data collection and problem solving. Letter grading.

106Q. Economics of Technology and E-Commerce. (4) Lecture, three hours. Enforced requisites: courses 111, 101. Enforced corequisite: course 106Q. Use of rigorous economic tools to analyze world of technology and e-commerce. Examination of economic theory, empirical analysis, and case studies to study variety of new markets. Topics include bidding in online auctions, two-sided markets, matching markets, and reputation mechanisms. Writing and oral and written presentations required. P/NP or letter grading.

106R. Economics of Technology and E-Commerce Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 111. Enforced corequisite: course 106R. Case-based analysis requiring students to apply theory from course 106R to data collection and problem solving and presentation of student analyses in writing or in oral presentations. P/NP or letter grading.


106VL. Investments Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 111. Enforced corequisite: course 106VL. Case-based analysis requiring students to apply theory from course 106VL to real-world problems regarding issues such as bidding in online auctions, two-sided markets, matching markets, and reputation mechanisms. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

107. History of Economic Theory. (4) Lecture, three hours. Requisite: course 111. Enforced corequisite: course 106VL. Survey of economic analysis from Grecian antiquity to early 20th century, concentrating on 18th and 19th centuries; special attention to selected writers, in-

111. Theories of Economic Growth and Development. (4) Lecture, three hours. Requisites: courses 111, 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/NP or letter grading.


113. Globalization and Gender. (4) Lecture, three hours. Requisite: course 11. Examination of gender dimensions of economic development and globalization from perspective of feminist economics. This perspective implies foregrounding labor, broadly defined to include paid and unpaid work; examining gender differences in work; access to resources; and well-being outcomes; and how these are affected by macroeconomic policies and how gender inequalities are relevant for this. Since early 1980s economic globalization has been achieved on basis of common set of macroeconomic policies pursued in industrial and developing countries alike. Policies frame both 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/NP or letter grading.

121. International Trade Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 101. Not open to students with credit for former course 120. Theory of international trade: bars: trade; basic national economic models; direct 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/NP 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 120. Emphasis on interpretation of balance of payments and adjustment to current and international equilibria through changes in price levels, exchange rates, and national income. Other topics include making international payments, determining exchange rates, and international capital flows. Introduction to forecasting of exchange rates and forecasting trend, seasonality, and cycles. Discussion of quantitative information from course readings and demonstration of techniques for forecasting using computerized econometric models and results. P/NP or letter grading.

131L. Economics of Health and Healthcare Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Enforced corequisite: course 131L. Case-based analysis requiring students to apply theory from course 131 to real-world problems regarding economics and healthcare. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

132. Topics in Taxation and Social Insurance. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 101, 103. Enforced corequisite: course 132. Case-based analysis requiring students to apply theory from course 131 to real-world problems regarding economics and healthcare. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

134. Environmental Economics. (4) Formerly numbered M134. Lecture, three hours. Requisites: course 41 or Statistics 12 or 13, and course 101. Introduction to the application of economic tools for conservation of natural resources and to examine environmental policy in economics, with emphasis on designing incentives to protect environment. Highlights important role of using empirical data to test hypotheses about pollution prices and consequences. P/NP or letter grading.

M123. Foreign Exchange Market and Exchange Rate Forecasting. (8) Formerly numbered M123. (Same as Economics Undergraduate 123.) Seminar, four hours. Introduction to forecasting of exchange rates. Theory linked with real-world data through use of powerful computer platform called Tradestation® in computer laboratory. Analysis of how foreign exchange market works, what financial instruments are used in this market, and what main theoretical determinants of exchange rates are. Generation of exchange rate forecasts using theoretical and empirical 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.


130L. Public Economics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Enforced corequisite: course 130. Case-based analysis requiring students to apply theory from course 130 to real-world problems regarding government intervention. Requisites: courses 131L, 131K, 131L, and federal credit programs. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

131L. Economics of Health and Healthcare Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced corequisite: courses 11, 101, 103. Enforced corequisite: course 131L. Case-based analysis requiring students to apply theory from course 131 to real-world problems regarding economics and healthcare. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.


143. Advanced Econometrics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 103. Not open for 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. Enforced corequisite: course 123. Preparation for advanced 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.

148. Behavioral Economics. (4) Lecture, three hours. Enforced prerequisite: course 101. Behavioral economics offers a synthesis of the field of economics that incorporates insights from psychology and other social sciences into economics to improve realism of economic models and analysis. Major topics include aversion to losses, preferences with self control, or concerns for others and thereby improve economic analyses. Review of some standard assumptions made in economics and examination of how such assumptions might be wrong. P/NP or letter grading.


150L. Labor Economics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Enforced corequisite: course 150. Use of multiple case studies to enhance understanding of labor economics and law. Topics include in-depth analysis of policy and current developments in labor economics. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. P/NP or letter grading.


164L. Advanced Topics in Macroeconomics: Theory of Economic Growth Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 164L. Case-based analysis requiring students to apply theory and historical data from course 164 to real-world macroeconomic growth problems. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.

165L. History of Capitalism in American Economy Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced prerequisite: course 102. Enforced corequisite: course 165L. How capitalism—what economists call market economy with well-defined and protected civil rights—has contributed to America's economic growth. Quantitative course, with analysis of how different features of capitalist economies impact economic growth, investment, consumption, and technical change, using computer simulations based on prominent historical examples. P/NP or letter grading.

166. History of Capitalism in American Economy. (4) Lecture, three hours. Enforced prerequisite: course 102. Enforced corequisite: course 165L. 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, 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 120A (may be taken concurrently). Focus on phenomena of panics, bubbles, and manias in financial history. In-depth analysis and discussion of underlying causes, private and public policy responses, similarities, and contemporary issues in today's financial landscape. Focus on study of financial meltdowns of 2008 with comprehensive treatment of financial and banking crises that led to housing and stock market bubbles. Highlights report of Financial Crisis Inquiry Commission, and various components of crisis with case and discussion on each. Emphasis on financial crisis: panics of 1907, Great Depression, Japanese real estate and stock market bubbles of 1980s, American banking crises of 1980s, and Asian Contagion of late 1990s. Students read case studies relating to each, and more general related 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). Introduction to fundamental principles of value investing. Discussion of fundamental themes relating to value investing, and demonstration of how these ideas compare across and between value and growth approaches. Topics include differences between investment and speculation, how to search for inefficiencies in market place, and importance of incorporating margin of safety in stock picking. Emphasis on understanding accounting and valuation tools, including liquidation value. Prepares students to analyze and interpret financial statements. Designed for students considering careers in fundamental research or analyst roles. Letter grading.

169. Applied Value Investing. (4) Lecture, three hours. Requisites: courses 101, 168. Management 120A (may be taken concurrently). Extends the principles of introduction to class to more advanced and a wider variety of applications. Makes use of multiple case studies to enhance comprehension with real-world examples, and to highlight necessary valuation skills that students are expected to master. Also covers market dynamics that can create opportunities to find structurally mispriced securities such as right offers, spin-offs, restructurings, and liquidations. Designed for students considering careers in security 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 170. Case-based analysis requiring students to apply theory and historical data from course 150 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 requisite: course 103. Preparation: calculus. Designed to give foundation in topics within field of industrial organization relating to regulation of monopoly power within economy and different way that that manifests across firm conduct and industrial structure and how it is regulated by antitrust policy, with some exploration of intersection between economics and law. Topics include in-depth analysis of cartels and mergers, including abstract theory and specifics of analytical approaches deployed in enforcement by Federal Trade Commission and Federal Trade Commission, P/NP or letter grading.

173A-173B. Introduction to Social Entrepreneurship. (4–4) Lecture, one hour; research group meeting, two hours. Course 173A is requisite to 173B. Full-scale immersion into world of social entrepreneurship. Introduces to basics of business planning for social enterprises, characterizes doing business in teams in social landscape. Focus on study of financial meltdown of 2008 with comprehensive treatment of financial and banking crises related to housing and stock market bubbles. Highlights report of Financial Crisis Inquiry Commission, and various components of crisis with case and discussion on each. Emphasis on financial crisis: panics of early 1900s, student research 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 related readings including speeches, papers, and articles. Letter grading.

174. Economics of Sports. (4) Lecture, three hours. Enforced prerequisites: courses 11, 41, 101. Recommended: courses 103/103L. Course in applied microeconomics that employs both theoretical and empirical tools to analyze wide range of topics related to sports industry. Topics include history of labor relations in professional sports, history and analysis of professional athlete labor market, and legal and institutional treatments of competitive process. Topics include differences between investment and speculation, how to search for inefficiencies in market place, and importance of incorporating margin of safety in stock picking. Emphasis on understanding accounting and valuation tools, including liquidation value. Prepares students to analyze and interpret financial statements. Designed for students considering careers in fundamental research or analyst roles. Letter grading.

175A-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. 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.

187A-173B. Introduction to Social Entrepreneurship. (4–4) Lecture, one hour; research group meeting, two hours. Course 173A is requisite to 173B. Full-scale immersion into world of social entrepreneurship. Introduces to basics of business planning for social enterprises, characterizes doing business in teams in social landscape. Focus on study of financial meltdown of 2008 with comprehensive treatment of financial and banking crises related to housing and stock market bubbles. Highlights report of Financial Crisis Inquiry Commission, and various components of crisis with case and discussion on each. Emphasis on financial crisis: panics of early 1900s, student research 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 related readings including speeches, papers, and articles. Letter grading.
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. Designation is based on interview or on course. Individual study with course lecture instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for major credit. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Economics. (4) Seminar, three hours. Enforced requisites: courses 101, 102, 103. Seminar in which students usually write research paper in 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.

193A-193B. Community or Corporate Internships in Economics. (1, 1) Tutorial, to be arranged. Requires courses 11, 101. Limited to student or junior/senior Economics, Business Economics, Economics/International Area Studies 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 193A and 193B may be applied toward major requirements. Individual contract will be supervised by faculty member required. P/NP grading.

195C. Community and Corporate Internships in Economics. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Requires: 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 conduct final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May not be applied toward major requirements. Department approves repeat applications. Dy- for credit with consent of department. Individual contract with supervising faculty member required. P/NP or letter grading.

196A. Honors Research in Economics I. (4) Tutorial, three hours. Enforced requisites: courses 11, 101, 102. Limited to senior departmental honors program students. First term of two-semester sequence in which students develop honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. In Progress grading (credit to be given only on completion of course 196B). P/NP or letter grading.

196B. Honors Research in Economics II. (4) Tutorial, three hours. Requires: course 196A. Limited to senior departmental honors program students. Second term of two-semester sequence in which students complete honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. Letter grading.

199A. Directed Research in Economics. (4) Tutorial, three hours. Requires: courses 11, 101, 102. Limited to juniors/seniors. Designation is based on research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated twice but may be applied only once toward major requirements. Individual contract required. P/NP or letter grading.

199B. Directed Research in Economics/International Area Studies. (4) Tutorial, four hours. Requires: courses 102, 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


205B. Mathematical Methods in Economics II. (4) Lecture, three hours; laboratory, two hours. Should be taken prior to or concurrent with course 205A. 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.


210C. Game Theory with Asymmetric Information and Applications. (4) Lecture, three hours. Perfect Bayesian equilibrium and refinements, mechanism design. Applied topics such as adverse selection, 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.

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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 C276A-C276B-C276C. P/NP or letter grading.


181L. Development of Economic Institutions in Western Europe Laboratory. (1) Lecture, three hours; laboratory, one hour. Requires: courses 11, 103. Corequisite: course 181. Empirical analysis requiring application of material from corresponding lecture course to selected historical issues, such as Malthusian 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; laboratory, one hour. Requires: courses 11, 103. Corequisite: course 183L. Study of changing 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. (4) Lecture, one hour; laboratory, one hour. Requires: course 11. Corequisite: course 183L. Laboratory consisting of required students to apply material from course 183 to selected historical issues such as migration, slavery, industrialization, capital formation, Great Depression, human capital formation, and California development and relate them to current real-world issues. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.

185. Career Development. (1) Formerly numbered 188L. Lecture, one hour. Requires: courses 11, 103, 104. Corequisite: course 185L. Lecture to present material related to personal and professional management. Designed to provide Business Economics majors with key knowledge and practical skills used in real world that complement traditional academic studies. Topics include resume building, interviewing skills, and presentation skills and strengthen resume building. Coverage of career paths in business profession in various aspects to broaden students' knowledge and abilities. Topics include:ursions to business environment, financial markets, economy, unemployment, banking crises, market updates, and all related business topics. P/NP grading.

C196A-C196B-C196C. Seminars: Economic History. (4–4–4) Seminar, three hours. Limited to seniors. Overview of most current developments in economic history for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C246A-C246B-C246C. P/NP or letter grading.

187. Upper-Division Research Seminar: Application of Economic Theory. (4) Seminar, three hours. Requires: courses 11, 101, 102. Limited to enrollment priority seniors in majors in which students usually write research paper on topic selected in consultation 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.

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209B. Introduction to Econometrics II. (4) Lecture, three hours; discussion, one hour. Estimation and testing. Basic linear regression model, tests of hypotheses, generalized least squares, heteroskedas-
ticity, multicollinearity, error-in-variables, and qualita-
tive dummy variable. 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 ap-
proaches, autocorrelation robust inference, Wold and Beveridge and Nelson (BN) decompositions, model selection, nonstationary models, spatial density, and nonparametric time-
series models. S/U or letter grading.

M204A-204Z. Applications of Economic Theory. (4 each) Lecture, three hours. S/U or letter grading.

M204A-204B-204C. California Population Research Topical Seminar Series. (4–4–4) (Same as Sociology M225A.) Seminar, three hours. Examination of issues such as demography, health, aging, labor, and broad 
array of topics concerned with effects of economic, social, and environmental factors in the lives of people. Topics 
range from classical demographic models to recent developments from 1870s, including contributions of major 
figures such as Smith, Ricardo, and Mill, and developments in microeconomic theory and for students who want to 
write about topics, research in mathematical economics. S/U or letter grading.

211A. Contract Theory. (4) Lecture three hours. Preparation: introductory probability. Enforced requi-
site: course 201C. Study of trading relationships be-
tween small number of agents. Coverage of many 
tools and techniques, including models of moral hazard, 
adverse selection, and incomplete contracting, starting 
with static models of moral hazard and mech-
anism design and development of their dynamic 
counterparts. Consideration of environments where 
agents cannot use formal contracts, studying rela-
tional contracts and trading relationships with no con-
tacts, Analysis of wide variety of applications from in-
dustrial 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: Intro-
ductive probability. Enforced requisite: course 201C. 
Theory of individual decision making under uncer-
tainty, applied to topics such as asset pricing models, 
adverse selection, auctions, and search. S/U or letter 
grading.

211C. Game Theory and Economic Applications. (4) Lecture, three hours. Preparation: introductory 
probability. Enforced requisite: course 201C. Intended 
for students with background in economics but doing research in microeconomic theory and for students who want to 
gain knowledge of the tools of economic analysis. May be re-
peated for credit. S/U or letter grading.

212A-212Z. Topics in Advanced Theory. (4 each) 
Lecture, three hours. Preparation: introductory econ-
omic theory. Content varies. Courses in this se-
quenCe not ordinarily given every year. May be re-
peated for credit. S/U or letter grading.

212A. Game Theory and Economic Applications. (4) 
Lecture, three hours. Preparation: introductory prob-
ability. Use of techniques of Bayes games to study bargaining, mone-
tary theory, and oligopoly. Use of theory of mecha-
nisms to study asset markets and imperfect 
competitive markets. May be repeated for credit. S/U or letter 
grading.

213A-213B. General Equilibrium and Game Theory. 
(4–4) Lecture, three hours. Preparation: course 201C. 
Different theoretical topics of current interest and intro-
troduction to modern mathematical eco-

214A-214Z. Topics in Mathematical Economics. (4 
Lecture, three hours. Preparation: course 213B. 
Current research in mathematical economics. 
Content varies. Ordinarily only courses in this sequence 
given every year. May be repeated for credit. S/U or letter 
grading.

221B. Applied Game Theory. (4) Lecture, three hours. 
Preparation: calculus, introductory probability. Use 
of theory of Bayesian games to study bargaining, mone-
tary theory, and oligopoly. Use of theory of mecha-
nisms to study asset markets and imperfect 
competitive markets. May be repeated for credit. S/U or letter 
grading.

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216. Law and Economics Workshop. (2 or 3) 
Seminar, three hours. Legal and economic aspects of 
legal and economic aspects of business, with special 
attention to topics such as antitrust, corporate 
law, bankruptcy, and corporate finance. May be re-
peated for credit. S/U or letter grading.
Economics


231A. Advanced Economic History I. (4) Lecture, three hours. Examination of economic history of different countries, roles of major variables, and policies. S/U or letter grading.

231B. Advanced Economic History II. (4) Lecture, three hours. Advanced topics in economic history that may vary to year. Current topics include international trade, exchange rates, and fiscal policies. S/U or letter grading.


Public Finance


251B. Cost-Benefit Analysis of Public Projects and Programs. (4) Lecture, three hours. Examination of the public projects and programs. S/U grading.

253A-C253Z. Topics in Microeconomics. (4 each) Lecture, three hours. Examination of specific topics in microeconomics. S/U grading.

254A-C254Z. Topics in Urban Economics. (4 each) Lecture, three hours. Examination of specific topics in urban economics. S/U grading.

255. Public Sector Microeconomics. (4) Lecture, three hours. Examination of the role of government in the economy, with emphasis on the allocation of resources. S/U grading.

Econometrics


218A-C218Z. Topics in Economic History. (4 each) Lecture, three hours. Examination of specific topics in economic history. Content varies. S/U or letter grading.


222A-C222Z. Topics in Microeconomics. (4 each) Lecture, three hours. Examination of specific topics in microeconomics. S/U grading.


224A-C224Z. Topics in Econometrics. (4 each) Lecture, three hours. Examination of specific topics in econometrics. S/U or letter grading.

225A. Bayesian Econometrics. (4) Lecture, three hours. Examination of Bayesian econometrics. Content varies. S/U or letter grading.

226A-C226Z. Topics in Microeconomics. (4 each) Lecture, three hours. Examination of specific topics in microeconomics. S/U or letter grading.


232A-C232Z. Topics in Econometrics. (4 each) Lecture, three hours. Examination of specific topics in econometrics. S/U or letter grading.

238A-C238B. Workshops: Econometrics. (4-4-4) Lecture, three hours. Examination of specific topics in econometrics. Content varies. S/U or letter grading.

239A-C239B-C239C. Workshops: Econometrics. (4-4-4) Lecture, three hours. Workshops for pre-dissertation and dissertation writers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Research paper required. S/U grading.

250. Microeconomics. (4) Lecture, three hours. Examination of basic microeconomic theory, with emphasis on the role of government in the economy, with emphasis on the allocation of resources. S/U grading.

Economic History

241. Economic History of Western Europe. (4) Lecture, three hours. Designed for graduate students. Seminar on European economic history, with emphasis on the impact of technology and social change on economic development. S/U or letter grading.


262A-C262Z. Topics in Labor Economics. (4 each) Lecture, three hours. Examination of specific topics in labor economics. Content varies. S/U or letter grading.

263. Topics in Urban Economics. (4) Formerly numbered 293A.) Lecture, three hours. Examination of specific topics in urban economics. S/U or letter grading.


265. Economic Development. (4) Lecture, three hours. Examination of specific topics in economic development. S/U or letter grading.

266A. Fundamentals and Bubbles in Asset Prices. (4) Formerly numbered 292A.) Lecture, three hours. Examination of specific topics in fundamentals and bubbles in asset prices. S/U or letter grading.


268A-C268B-C268C. Seminars: Labor Economics. (4-4-4) Seminar, three hours. Designed for graduate students. Examination of specific topics in labor economics. S/U or letter grading.


271. Labor Economics I. (4) Lecture, three hours. Examination of specific topics in labor economics. S/U or letter grading.

272. Labor Economics II. (4) Lecture, three hours. Examination of specific topics in labor economics. S/U grading.


275. Microeconomics of International Trade. (4) Lecture, three hours. Examination of specific topics in microeconomics of international trade. S/U grading.
Industrial Organization

271A-271B. Industrial Organization, Price Policies, and Regulation I, II. (4-4-4) Lecture, three hours. S/U or letter grading.


271B. Industrial Organization, Price Policies, and Regulation II. (4) Lecture, three hours. Requisite: course 271A. Study of firm organization and pricing under conditions of less than perfect competition; information costs and advertising; economic and legal analysis of marketing practices such as discrimination, tie-in-selling, resale price maintenance, exclusive dealing, and territorial arrangements. S/U or letter 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.


279A-C279B-C279C. Seminars: Industrial Organization. (4 each) 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 criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C126A-C126B-C126C. S/U grading.

Development Economics


286B. Cost-Benefit Analysis of Development Projects. (4) Lecture, three hours. Requisite: course 286A. Methodology for evaluating investment projects, with emphasis on 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. Courses in research in development economics. Content varies. Courses in this sequence not ordinarily given 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 economic 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 Master's report on policy issues. May be repeated for credit. S/U or letter grading.

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. Overview of 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.


Economics / 329

286A-286B-286C. Seminars: International and Development Economics. (4-4-4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers on current issues in international trade and finance and development economics. Preparation of work-in-progress for feedback from faculty and other graduate students. Presentation or research paper required. S/U grading.

289A-C289B-C289C. Seminars: Asset Pricing. (4-4-4) Seminar, three hours. Designed for predissertation and dissertation writers on most current developments in asset pricing theory 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 C146A-C146B-C146C. S/U (C289B) and S/U or letter grading (C289A, C289C) grading.

289A-289B-289C. Seminars: Applied Pricing. (4-4-4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers on current issues in asset pricing, broadly defined. Presentation of work-in-progress or background material for proposed dissertation. Discussion of most current developments in asset pricing theory 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. Presentation or research paper required. S/U grading.

Teaching Practicum

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U 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 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 key 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 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/non-stationary processes. Letter grading.

403B. Applied Econometrics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Basic tools necessary for high-level cutting-edge empirical research. Coverage of variety of
404A. Writing and Presentation Skills for Economists I. (4) Seminar, three hours. Limited to Master of Applied Economics students. Designed to help students develop communication and presentation skills essential for success in any aspect of business. Practice in writing economics documents for variety of professional audiences. Writing taught as process—brainstorming, collaborating, continually revising, and challenging ideas. Presentation skills to focus on presenting information clearly and organizing ideas, with emphasis on how to write, and presenting cause audience determines dictation, 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, critiquing, and report writing. Process writing used and self-editing skills stressed. Presentations include summary/critique, opinion piece, and final group presentation that includes proposals. Grammar incorporated as needed, especially in regard to 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 sector, and real economy, including reading of recent papers to gain introduction to questions being addressed on research frontier. Letter grading.


408. Environmental Economics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to models and data used to understand connection between asset prices, health of financial sector, and real economy, including reading of recent papers to gain introduction to questions being addressed on research frontier. Letter grading.

409. Financial Crises and Exchange Rate Forecasting. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to recent developments in international finance. Coverage of lending booms and financial crises both theoretically and empirically, as well as foreign exchange market anomalies and different approaches to forecasting exchange rates. Letter grading.


421. Incentives, Information, and Markets. (4) Lecture, three hours. 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 Brexit, effect of trade on inequality in developed and developing countries, and impact of infrastructure investments on trade and development. 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 Brexit, effect of trade on inequality in developed and developing countries, and impact of infrastructure investments on trade and development. Letter grading.
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.

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 Humanities, Social Sciences, and Scientific Inquiry. (4) Lecture, 3 hours; discussion, 90 minutes. Designed to help students better understand their experience within the college environment by learning about research and writing skills. Development of scientific inquiry skills relevant to study of mathematics and science in medical professions. Weekly compositions, critical thinking journals, and participation in laboratory experiments. Application of these concepts to critical issues facing migrant farmworker communities and similar groups throughout the state and country, with focus on issues such as identity, language, culture, and central social, health, and educational issues facing Latino community. 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.

80. Understanding Collegiate Experience. (4) Lecture, three hours; discussion, 90 minutes. Designed to help students better understand their experience within college environment by learning about research that has been done on college students and impact of college. Examination of diverse issues ranging from reasons why students go to college to how students are ultimately influenced by college experience. Letter grading.

85A-85B-85C. Evaluation for Practitioners. (1–1–2) Tutorial, one hour. Provides participating student initial Access Center (SIAC) program staff with basic understanding of evaluation skills. Students learn how to describe programs in terms of inputs, outputs, and outcomes and are able to frame relevant and measurable evaluation questions based on program needs. 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.
98. Critical Issues in Education. (4) Seminar. 30 minutes; laboratory, 30 minutes. Introduction to critical educational issues and approaches taken by researchers, policymakers, and education advocates as they respond to these issues. Laboratory portion of course engages students in small research groups where they acquire background on particular issue of interest, learn about social sciences research, and conduct mini-research projects. May be repeated for credit. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must 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

M102. Mexican Americans and Schools. (4) (Same as Chicana/Chicano M102) Seminar, three hours; discussion, two hours. Theoretical and empirical overview of Chicana/Chicano educational issues in U.S., with special emphasis on disentangling effects of race, gender, class, and immigrant status on Chicana/Chicano educational attainment and achievement. Examination of how historical, social, political, and economic forces impact Chicana/Chicana educational experience. 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 M202) 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 important school and community building components, and assess oral 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 M115) Lecture, four hours; discussion, one hour. Study of how U.S. educational system both promotes socioeconomic opportunities and maintains socioeconomic inequalities: historical and theoretical perspectives on role of education in U.S. society; trends in educational policy and practice; public policy analysis; interest groups in education policy formation and implementation; and focus on Freirean pedagogy. Concurrently scheduled with course C209A. Letter grading.

M125. Politics of Education. (5) Lecture, two hours; discussion, two hours. Political dimensions of education institutions as organizations. Relationships between education institutions and political institutions in society. Political theory and public policy analysis; interest groups in education policy formation and implementation; and focus on Freirean pedagogy. Concurrently scheduled with course C207. P/NP or letter grading.

M126. Educational Anthropology. (5) Seminar, four hours. Research seminar designed to familiarize students with discipline of anthropology and subfield of anthropology and education with particular concept of culture through various anthropological perspectives, with focus on theories of culture, cultural transmission and acquisition, and cultural reproduction and production for understanding schooling and its outcomes. Examination of research methodologies in anthropology, as well as critical historical overview of discipline and current debates and dilemmas of doing anthropological research in educational settings, issues of race, gender, sexual orientation, and class, and consideration of application of anthropological theory and methods to educational practice and research. Concurrently scheduled with course C203. Letter grading.

M127. Educational Psychology. (5) Lecture, two hours; discussion, two hours. Broad overview of educational psychology, with examination of relationship of teaching and learning; teaching as a profession, and how children learn; issues of teaching and learning that arise based on child's social class, ethnic background, gender, age, and level of ability. Letter grading.

M128. 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 at large. Study of psychological and educational theories that apply to specific sub-samples of adolescents (e.g., working and adolescents of color), as well as those that are relevant to population of youth at large. Letter grading.

M129. Education and Law. (5) Seminar, four hours. Research seminar providing overview of high-profile legal and cultural controversies that shape school curriculum and institutional life at both K-12 and higher education levels. Major areas of focus include campus safety, religion and schools, educational quality and law, broad-based educational, and Internet-related issues and concerns. Letter grading.

M130. 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 Americans, Asian Americans and Pacific Islanders, Chicanas/Chicanos, Chicana/Chicano educational attainment and
canons/Latinos/Latinas, and low-income white Ameri-
cans. Examination of the 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.
131. Issues in American Education: Perspectives
from History and Popular Culture. (4) Seminar, four
hours. Exploration of ways we draw on different
texts to illuminate major issues in American sec-
condary education. Issues include transformation in
secondary education from 1890 to present, politics of
social class, race, and gender representation of sec-
condary education. Letter grading.
132. Autism: Mind, Brain, and Education. (5) Lec-
ture, two hours; discussion, two hours. Study of au-
tism spectrum disorders (ASD) and related disabili-
ties. Discussion of characteristics of disorder, effec-
tive interventions, and exploration of impact of
children with ASD on families. Limited number of in-
dependent observations of individuals in community
required. Letter grading.
133. Topics in Child Development and Social Poli-
cies. (5) Seminar, four hours. Research seminar de-
nanced to enable students to gain basic under-
standing of ways in which public policies are estab-
lished and implemented. Students learn about policies
in several major domains of child and family life in
U.S. and other countries, and use scientific research
on children’s cognitive and social development to
evaluate and understand effects of social and eco-
nomic policies. Letter grading.
134. Educational Leadership, Organizational Theo-
y, and Policy. (5) Seminar, four hours. Designed for
students interested in developing understanding and
appreciation for breadth of leadership models/theo-
ries in education, including traditional, entrepre-
eurial, behavioral, and relationship-based models.
Analysis of effectiveness of organizations and/or poli-
cies in terms of educational leadership, and develop-
ment of personal leadership profile in context of alter-
native models of leadership relevant to education.
Letter grading.
135. Introduction to Educational Inquiry. (5) Sem-
inari, five hours. Limited to seniors/juniors. Introduc-
tion to educational inquiry, with special attention to
different ways of conducting research in field of edu-
cation. Emphasis on development of questioning and
inquiry skills. Letter grading.
136. Working Families and Educational Inequali-
ties in Urban Schools. (4) (Same as Labor and Work-
place Studies M136.) Seminar, three hours; fieldwork,
five hours. Exploration of complex relationship
between working-class and poor communities and in-
equalities in American urban schools. Drawing on
multiple disciplinary frameworks that address issues of
race, ethnicity, and immigration, schools viewed as
sites where inequalities are produced and resisted.
Review of history of exclusionary treatment and diver-
genetic conceptual frames that educational researchers
have used to understand notion of inequality, access
to quality public education, and how race, ethnicity,
and class affect school experiences for working-class
and poor students. Look inside schools through
community service learning opportunity to examine
systems, structures, and everyday practices that sus-
tain and reproduce inequality and policies that intend
to remedy educational inequalities 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
concurrent frameworks that are typically used to
understand them. Development of fluency in public
policy language, with focus on national, state, and
institutional policy perspectives. Letter grading.
138. Critical Pedagogy and Cultural Studies in Ur-
ban Education. (5) Lecture, two hours; discussion,
two hours. Consideration of potential of conceptual
and empirical work in critical pedagogy and cultural
studies to inform, confront, and transform many chal-
genues of fields. Staging of theory and research of critical pedagogues such as
Peter Freire, Peter McLaren, and others. Letter
grading.
139. Educational Program Evaluation. (5) Seminar,
four hours. Stages and methods for conducting eval-
uations of educational and social programs, with em-
phasis on evaluation approaches that are theoretically
grounded, methodologically rigorous, practical, and
useful. Letter grading.
140. Time and Behavior in Educational Organiza-
tions. (4) Seminar, three hours. Designed for juniors/
seniors. Exploration of psychosocial perspective of
how temporal orientation and time investments im-
pact and shape human behavior, with specific em-
phasis on educational issues related to school reform,
teen pregnancy, school violence, teacher burnout,
teacher midlife crisis, cultural diversity, information-
seeking behaviors, and academic attainment. Letter
grading.
141. Writing to Learn: Teaching Writing in Elemen-
tary and Secondary Schools. (4) Seminar, four
hours; activity, two hours. Emphasis on development
and improvement of students’ writing. Letter grading.
142. Reflections of Education Abroad Program
Study. (4) Seminar, two hours; activity, two hours.
Design to provide returned Education Abroad Pro-
gram (EAP) students with structured opportunity to
depth their reflections on their time abroad through
contact with literature, academic articles, and
speakers. Provides EAP students opportunity to
work in groups to develop their theories of learning
and culture, and to develop and share the reflections
students return and reciprocity students chance to
learn through service to EAP. Letter grading.
143. Understanding Pathways to College. (4) Lec-
ture, two hours; discussion, two hours. Examination
of inequality across K-12 and higher education to un-
derstand how college admissions are stratified across racial and class lines. Roles of school personnel,
high school 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 support students in Los Angeles area
schools. Letter grading.
144. Advanced Undergraduate Research Seminar.
(4) Seminar, four hours. Limited to juniors/seniors. Ad-
vanced independent skills course of joint interest to
professor and student. Research topic to include work
with K-12 American educational experience, with specific
emphasis on diversity, assessment, technology, at-
risk, geographical space, and psychosocial develop-
ment of children. Letter grading.
145A. M145B. Restoring Civility: Understanding,
Using, and Resolving Conflict. (4–4) (Same as Chi-
cana and Chicano Studies M174A-M174B.) Lecture,
one hour; fieldwork, three hours. Intensive course M145A is
enforced requisite to M145B. Designed for students
who want to learn principles of dialogue and media-
tion, as alternatives to violence, and practice how to
apply them in daily life. In Progress (M145A) and letter (M145B).
145C. Alternatives to Violence: Peer Mediation in
Public Schools. (4) (Same as Chicana and Chicano
Studies M174C) Lecture, one hour; fieldwork, three
hours. Intensive course M145B limited to juniors/seniors.
Application of student knowledge and experience to help students in partner schools to de-
velop peer mediation programs to be sustained by fu-
ture UCLA alumni. Students will participate in UCLA sites demonstration of firm grasp of concepts of conflict resolution through weekly reflective journals, discus-
sion through biweekly meetings, and final journal entry. Application of learning from literature from earlier courses, and reflection on student
field experiences to deepen understanding of vio-
ence, its causes, and what schools can do to mitigate
it. Letter grading.
146A. Research Apprenticeship in Peer Counsel-
ing. (4) Seminar, four hours. Limited to juniors/se-
niors. Highly interactive, student-centered course de-
signed to provide hands-on experience in academic
department advising and leadership and understanding of under-
lying theories, principles, and related issues. Students advise their peers in Education Studies
majors and work with community among those
students. Letter grading.
146B. Research Apprenticeship in Peer Advising
and Leadership. (4) Seminar, four hours. Enforced
requirement for course 145A. Highly interactive, student-centered course designed to
provide hands-on experience in academic peer ad-
vising and leadership and understanding of under-
lying theories, principles, and related issues. Students advise their peers in Education Studies
minors and work with community among those
students. Letter grading.
147. Lesbian, Gay, Bisexual, and Transgender is-
sues in Education and Law. (4) Lecture, four hours.
Lesbian, gay, bisexual, and transgender-related con-
troversies that arise in schools, colleges, and universi-
ties today and how they are being addressed by legal
firms and legal communities. In particular, examina-
tion of real-life consequences of current laws and ex-
ploration of what might be done to make things better for all persons. Letter grading.
148M. Topics in Women in Higher Education. (4)
(Same as Gender Studies M148.) Seminar, three hours.
De-
signed for seniors/juniors. Overview of issues related to
experience of women in higher education. Topics
include curricular transformation, feminist pedagogy,
gender equity, women faculty members, and intersec-
tion of gender and race. Letter grading.
149. Innovation and Social Entrepreneurship in Ed-
ucation. (5) 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 and 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 deci-
sions and understanding how different family and
personal values play role in career development process.
Through interactive lessons and projects, develop-
ment of strategies to anticipate and effectively deal
with lifelong challenges such as work/life balance, ca-
reer fulfillment, and career transitions. P/NP grading.
152A. Globalization and Learning. (4) Lecture,
two hours; discussion, two hours. Introduction to dif-
ficult conceptualizations of globalization and their relat-
ionship to educational processes and learning in con-
temporary societies. Discussion of several concepts
and theoretical lenses as basis for appreciating and
understanding how dialectics of globalization and
local are affecting educational systems and learning over lifes-
pans. 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 envisioning possible solutions to mul-
tiple layers of theoretical, empirical, and practical im-
plementation of global citizenship education. Exam-
ination of how global awareness and education for sustainable development are beginning to
impact life, actions, policies, and practices of educa-
tors, students, non-government organizations, gov-
ernments, multinational organizations, and other
international players in local and global contexts. Examination of how global citizenship education impacts our
world.
view, teaching, and learning as we strive to envision work toward more just and sustainable society. Letter grading.

152C. Global Citizenship Education. (4) Lecture, four hours. Questions regarding nature and possibility of education that can foster global citizenship neces-
sary to understand and resolve world’s pressing issues. Focus on curriculum and instruction of global citizenship education. Using local and global re-
search, explore implications of various perspec-
tives, curricula, and pedagogies pertaining to teaching and implementation of global citizenship ed-
ucation at different levels of education. Letter grading.

C160. Theory and Practice of Intergroup Dialogue: Building Bridges. (4) Lecture, two hours; fieldwork, four hours. Core-

C189HC. Honors Contracts. (1) Seminar, first hours. Limited to students in College Honors and depart-
mental honors programs. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

M190. Arts Education Undergraduate Practicum: Preparation, Observation, and Practice. (4) (Same as Arts Education M192.) Seminar, three hours. En-
forced requisite: course M104. Limited to juniors/se-
niors. Preparation and supervision of advanced under-
graduate students participating in Visual and Performing Arts Education minor. Students im-
plement and evaluate original arts education pro-
grams under guidance of faculty members in small course settings. P/NP or letter grading.

M190SL. Arts Education Undergraduate Practi-
cum and Capstone Project. (4) (Same as Arts Edu-
cation M192SL) Seminar, four hours; outside study, six hours. Enforced requi-
sites: courses M104, M190. Limited to juniors/se-
nors. Continuation of arts education training and super-
vised practicum for advanced undergraduate stu-
dents participating in Visual and Performing Arts Education minor. Students continue to implement and evaluate original arts education programs under guidance of faculty members in small public school settings. May be re-
peated for credit with consent of instructor. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-
dents. Honors content noted on transcript. P/NP or letter grading.

189Y–193Z. High School Advising Program. (4–4) Discussion, two hours; fieldwork, five hours. Service learning courses designed to provide students with information and techniques sufficient to allow them to undertake academic advising in local socioeconomic high schools. Letter grading.

170A. Undergraduate Practicum in America Reads. (2) Seminar, two hours. Enforced corequisite: course 170B. Limited to juniors/seniors. Training and super-
vised practicum for advanced undergraduate stu-
dents to study learning and developmental factors as well as cultural, social, and economic factors that affect student academic achievement. Exploration, testing, and application of various learning styles that enable students to become more effective learners. Letter grading.

170B. Undergraduate Practicum in America Reads. (2) Seminar, two hours. Enforced corequisite: course 170B. Limited to juniors/seniors. Training and super-
vised practicum for advanced undergraduate stu-
dents that provide opportunity to reflect on both content and experience pertaining to America Reads sites. Letter grading.

171Y. 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.

171Y–193Z. High School Advising Program. (4–4) Discussion, two hours; fieldwork, five hours. Service learning courses designed to provide students with information and techniques sufficient to allow them to undertake academic advising in local socioeconomic high schools. Letter grading.
197. Individual Studies in Education. (2 to 4 Tutorial, four 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. Directed Research or Senior Project in Education. (2 to 4 Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation designed to prepare student for research opportunities. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or 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 researching the history of education. May be repeated for credit. Individual contract required. 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 quantitative data. S/U or letter grading.


203. Educational Anthropology. (5 Seminar, four hours. Research seminar designed to familiarize students with discipline of anthropology and subfield of anthropological pedagogy. Connection of concept of culture through various anthropological perspectives, with focus on theories of culture, cultural transmission, socialization, and cultural reproduction and production for understanding schooling and its outcomes. Examination of research methodologies in anthropology, as well as critical historical overview of discipline and current debates and dilemmas of doing anthropological research in educational settings. Issues of race, gender, sexual orientation, and class, and consideration of application of anthropological theory and methods to educational practice and search. Concurrently scheduled with course C126. 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, Marxist, neo-Marxist, liberation theology, and world-system theories of change and development) and changing notions of role 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. Nonnormal 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, consciousness raising, community action, skills training, literacy, and extension programs. S/U or letter grading.

205. Computers in Educational Process. (4 Lecture, four hours. Introduction to technology, experimentation, evaluation, and future of computer systems in education, with emphasis on computer-assisted instruction (CAI), and use of teaching programming to foster development of writing, computational, and filing 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 educational institutions as organizations. Relationships between educational institutions and political institutions in society. Political theory as foundation for public policy analysis; interest groups in education policy formation and implementation; and focus on Freirean pedagogy. Concurrently scheduled with course C125. S/U or letter grading.

208A. Perspectives on Sociology of Education. (4 Lecture, four hours. Sociological perspectives on current issues in educational policy and practice, including desegregation, decentralization, equality of educational opportunity, structure of educational organization, power and control, teacher/student relationships, and aims and practices of American education today. S/U or letter grading.

208B. (Im)migrant Youth, Ethnography, and Education. (4 Seminar, four hours. Experiences of immigrant youth in U.S. schools, with focus on language, culture, and educational equity in urban settings. Letter grading.

208C. 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.

209A. History of Higher Education. (5 Seminar, four hours. Exploration of major eras in history of higher education. Topics include issues concerning diversity, affirmative action, cultural literacy, higher education, and role of popular media. Concurrently scheduled with course C124. S/U or letter grading.

209C. 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 statistical concepts, use of computers to test research issues, and research proposal writing. Letter grading.
Education

From the perspective of counseling and educational practice, four hours. Theory and practice of prevention of student dysfunctions. Consideration of number of motivational concerns such as persistence and intensity of behavior. Perceived causes of outcomes in achievement and affirmative domains. S/U or letter grading.


Social Development and Education. (4) Seminar, four hours. Biological and familial, school, and other influences on children; development in context of cultural, theoretical models; consideration of theoretical and methodological research on family, peer group, and school; application of developmental theory and research to educational practice. S/U or letter grading.

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 Piaget and Vygotsky, and relation of this work to issues in educational practice. S/U or letter grading.

Personality Development and Education. (4) Same as Psychology M217C. Seminar, four hours. Review of research and theory of critical content areas in personality development that bear on school performance: achievement motivation, self-concept, aggression, social conduct, and other socially-motivated behaviors; review of status of emotional behavior in personality theory and development. S/U or letter grading.

Language Development and Education. (4) Lecture, four hours. Research on how children develop their first language; sociolinguistic and psycholinguistic issues in preschool and primary years; bilingual and dialectal issues. S/U or letter grading.

Emerging into Adulthood. (4) Seminar, four hours. Examination of theories and research related to transition to adulthood and role of race/ethnicity, gender, and immigration status in shaping development. Topics include historical and cross-cultural comparisons of emerging adulthood; ethnic, racial, and gender identity; family relationships and expectations; college opportunities and experiences; entering workforce; alternative pathways (incarceration and military); and civic engagement. Letter grading.

Adolescent Development. (Same as Psychology M242G.) Seminar, four hours. Designed for graduate students. Research on physical, cognitive, social, and psychological development during second decade of life. Topics include pubertal development, changes in parent/adolescent relationships, role of peers, identity development, high-risk behaviors, stress and coping, and school adjustment. Letter grading.

Child Abuse and Neglect. (2–2–1). (Same as Community Health Sciences M217G-M217B-M217C; Dentistry M300A-M300B-M300C; Law M281A-M281B; Medicine M290A-M290B-M290C; and Social Welfare M203F-M203G-M203H.) Lecture, two hours. Course M217G is requisites C, which is requisites to M217H, which is requisites to M217I. Intensive interdisciplinary study of child physical and sexual abuse and neglect, with lectures by faculty members of Schools of Dentistry, Law, Medicine, Nursing, and Departments of Education and Psychology, as well as by relevant public agencies. Letter grading.

Measurement of Educational Achievement and Aptitude. (4) Lecture, four hours. Required: course 215A. 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.

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.

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.

Computer Analyses of Empirical Data in Education. (4) Lecture, two hours; laboratory, two hours. Required: courses 210A-210B. Selected computer programs designed to develop conceptual and technical skills needed for designing and executing experimental research utilizing statistical packages. Each student conducts two original studies. Emphasis on techniques, data analysis and interpretation of results. S/U or letter grading.

Introduction to Qualitative Methods and Design Issues in Educational Research. (4) Lecture, three hours; discussion, one hour. Introductory course for students interested in epistemology, theories, and styles of qualitative research in educational settings. Theory and practice of naturalistic, qualitative research design covered in second half of course. Letter grading.

Participant-Observation Field Methods. (4) Lecture, two hours; discussion, two hours. Prerequisite: 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.

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 microethnography of social interaction. S/U or letter grading.

Procedural Issues in Evaluation. (4) Lecture, four hours. Assessment methodologies appropriate for evaluation problems. Writing evaluation proposals, development and implementation of evaluation, selection of appropriate evaluation design strategies, coping with ethical considerations in evaluation, framing decision context, and reporting evaluation results. Letter grading.

Problems and Issues in Bilingual and Multicultural Education. (4) Lecture, two hours; discussion, two hours. Introduction to development and implementation of bilingual and multicultural programs in U.S. Analysis of program goals, models, typologies, and effectiveness. S/U or letter grading.

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.

Advanced Issues in Education of Exceptional Individuals. (4) Lecture, four hours. Synthesis of developmental and educational theory relevant to study of exceptional individuals, including consideration of historical context of current research and applied issues in special education. S/U or letter grading.

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. Requisite: course 225B. Overview of research and theory regarding exceptional individuals and discussion of application of this work to educational practice. S/U or letter grading.


228. Observation Methods and Longitudinal Studies. (4) Lecture, two hours; discussion, two hours. Requisite: course 230A. Design of observational longitudinal studies. Formulation of study conclusions concerning influences on children’s development. Conduct of observations; processing and analysis of data. Use of portable computers for recording observations. S/U or letter grading.

229. Seminar: Special Topics in Urban Schooling. (4) Seminar, four hours. Research on selected topics in fields of administration, policy, curriculum, and teaching studies and on conceptualization of hypotheses and research programs on division topics and issues. Letter grading.

CM229B. 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.


231D. Advanced Quantitative Models in Nonexperimental Research: Multilevel Analysis. (4) Lecture, four hours. Requisites: courses 230B, 230C. Examination of conceptual, substantive, and methodological issues in analyzing multilevel data (i.e., on individuals in organizational settings such as schools, corporations, hospitals, and communities); consideration of alternative analytical models. Letter grading.


232. Instructional Analysis. (4) Lecture, four hours. Theoretical and empirical analysis of instructional variables as they relate to diverse types of instructional designs. Development of skill in techniques of conducting instructional research. S/U or 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 Approaches to Education. (4) Seminar, four hours. Introduction to concepts and principles in economics of education using critical perspective. Overview of evolving relationships between education and economics, including the growing use of education as 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 and Skills. (4) Seminar, four hours. Use of political economy of education perspective for exploring, at international and comparative levels, link between alternative models of governing, providing and financing education and training systems and impact of alternatives or outcomes such as unequal chances to learn, types of skill formation, and well-being. S/U or letter grading.


237. Law and Urban Education. (4) Lecture, four hours. Examination of legal controversies that may impact ability of urban educators to meet needs of students in multicultural society, with special emphasis on equity-related issues as desegregation, school finance, school rights and the rights of language minority students. Letter grading.

238. Cross-National Analysis of Higher Education. (4) Lecture, four hours. Comparative study of national systems of higher education; their division of work, basic values, structures of authority, modes of national integration, and types of change. S/U or letter grading.

239. Organization and Governance of Educational Systems. (4) Lecture, four hours. Academic organization, professional organization and postsecondary, are most appropriately studied as complex, professionalized organizations. Emphasis on characteristics of educational institutions and systems as organizations: environmental relationships, processes, and patterns of decision making and policy-making. 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 youths’ 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.


C244. Theory and Practice of Intergroup Dialogue: Building Facilitation Skills. (4) Seminar, four hours. Topics will include social psychology 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 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 re-
search briefs, students can pursue decision analysis areas of special interest to their professional and career objectives, S/U or letter grading.

247. Special Topics in Law and Educational Policy. (4) Lecture, four hours. Policy-based inquiry with focus on current law-related debates that inevitably influence both K-12 and higher education communities. Identification of strategies 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 ideas, 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) Lecture, four hours. Designed for graduate students. Two-course sequence designed to orient new students to ideas, ideals, 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 analyze institutions and issues of contemporary higher education. Examination 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, two hours; discussion, two hours. Requisite: 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.

252SA. Seminar: Current Problems in Comparative Education, (4) Same as Gender Studies M252SA.) Seminar, four hours. Examination of some of most influential critical theorists, including Marx, Nietzsche, Freire, Foucault, Fanon, and de Beauvoir and their contributions to critique of contemporary education, society, and politics. S/U or letter grading.

253A. Seminar: African Education, (4) Seminar, four hours. Excluded from majors in social science. Limited to graduate students. Study of educational institutional systems, including questions of access and equity, quality and efficiency, relevance and responsiveness, links between schools and communities, and policy and practice in education. S/U or letter grading.


253F. Seminar: Education in Revolutionary Societies, (4) Seminar, four hours. Excluded from majors in social science. Limited to graduate students. Multidisciplinary and comparative study of socialist educational theory examining the influence of Marx, Lenin, Mao, and others. Implementation of this theory in specific case studies, along with comparative assessments of non-socialist nations. S/U or letter grading.

253G. Seminar: Asian Americans and Education, (4) Seminar, four hours. Basic issues and topics related to Asian Americans in field of education. Examples of issues and topics include Asian Americans and community, social economic status, education, work transition, language and culture question. S/U or letter grading.

253H. Seminar: Chicanos/Hispanics and Education, (4) Seminar, four hours. Basic issues and topics related to Chicano and other Hispanic groups in education. Review of literature on specific educational levels and Chicano/Hispanic student progress (e.g., early childhood, elementary, higher education); specific; topics: assessment, access, tracking, segregation; implications for schooling). S/U or letter grading.

253I. Education and Social Change in Middle East and Islamic World ( Seminar, four hours. Critical and analytic examination of historical and current role of traditional and modern (Western) education in affecting social, political, and economic changes in countries of Middle Eastern and Muslim world (including Pacific Rim, South and Central Asia). S/U or letter grading.


256A. Seminar: Special Topics in School Learning, (4) Seminar, four hours. S/U or letter grading.

256B. Seminar: Special Topics in Development, (4) Seminar, four hours. S/U or letter grading.

257. Seminar: Research in Counseling Psychology. (4) Seminar, four hours. In-depth analysis of selected research approaches/areas in counseling psychology. S/U or letter grading.

258A. Seminar: Problems in Instructional Research, (4) Seminar, four hours. S/U or letter grading.


259. Administration of International Programs in Higher Education. (4) Seminar, four hours. Introduction to theory and internationalization in U.S. higher education, looking at meaning of concept of comprehensive internationalization across campus, issues of effective leadership and management, and individual aspects of internationalization, including study abroad program development and implementation, international student recruitment and support services, international curriculum—area and language studies, English as a second language programs, international internships and careers, faculty development in international travel and research, international partnerships/branch campuses, international development, and international alliances; distance learning/massive open online courses (MOOCs)/hybrid models. Letter grading.


261E. Higher Education Seminar: Diversity Issues and Research Perspectives, (4) Seminar, four hours. Examination of how racial diversity and its related dynamics have transformed and at same time been re-shaped by institutions of higher education, with focus specifically on student experiences, curricula, institutional climate, educational policies, and administrative practices. Letter grading.

261F. Seminar: Cognitive and Personal Development of College Students, (4) Seminar, four hours. Examination of cognitive development of college students; issues of personal and social development, including leadership, and interpersonal relations and skills. S/U or letter grading.

262B. Seminar: Reading, (4) Seminar, four hours. S/U or letter grading.

262F. Seminar: Research Topics in Bilingual/Multicultural Education, (4) Seminar, four hours. S/U or letter grading.


265. Higher Education Policy, (4) Lecture, four hours. Excludes 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.

266. Feminist Theory and Social Sciences Research, (4) Same as Gender Studies M266.) Lecture, four hours. Examination of how diverse feminist social theories in past 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, such as post-structuralist, feminist, deconstruction, reader reception, and semiotics, and to seminal reading theorists of reading, such as Roland Barthes, Wolfgang Iser, Barbara Johnson, Stanley Fish, and Gayatri Spivak. Letter grading.

269. Representations of Education in Cinema, (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Exploration of ways in which we draw on diverse “texts,” particularly films set in or around schools, to illuminate contemporary issues in American secondary education (e.g., issues pertaining to representation of teachers, students, parents, and 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 through examination of different methods of cultural interpretation, seminal texts in cultural studies, and practical criticism engaging popular art-facts 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, counseling, 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 methods in education 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 System, (4) Lecture, two hours; discussion, two hours. Overview of school administration, teaching, curriculum, and policy studies. Focus on American educational system as institutional system wherein federal, state, and local policy, school administration, curriculum theory and design, and teaching are inextricably connected in delivery of education. Letter grading.

273B. Social Foundations of Education, (4) Seminar, four hours. Introduction to literature on multiculturalism and teachings in diverse social, cultural, and economic contexts. Exploration of debates over multicultural and traditional education in U.S. and around the world by review of diverse number of anthropological, sociological, educational curricula and literatures. Letter grading.

274. Science, Technology, and Social Research at the End of the Millennium, (4) Lecture, four hours. Review of the philosophy of natural sciences for social scientists that examines challenges to conventional research assumptions
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 educational tradition. Letter grading.

285. Education and Law. (4) Lecture, four hours. Examination of recent high-profile, educational-related disputes and educational policy issues. Topics explored include campus safety and privacy, student freedom of expression, technology-related issues and concerns, and rights of the school, cyberbullying, and accounting 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 enholder school-to-prison pipeline to ongoing legal battles regarding race-conscious policies, K-12 teacher tenure, school sports, unmet needs of English language learners, middle of special education system, impact of burgeoning charter school movement, and implementation of federal Every Student Succeeds Act. Concurrently taught with Law 282. Letter grading.


288. Research Apprenticeship Course. (2) Discussion, two hours. Course facilitates mentorship model of training PhD students in education, with focus on development of graduate student research topics. Assignment of common readings related to these topics; students have opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

289A-M289B. Immigration, Racial Change, and Education in 21st-Century America. (4) Seminar. (Same as Political Science M287A-M287B, Public Policy M289A-M289B, and Sociology M290A-M290B.) Seminar, four hours. Examination of metropolitan American society and institutions at beginnings of 21st century. Consideration of best available information on patterns of settlement, changing functions of urban space and institutions, and issues of opportunity linked to urban structure in society facing unprecedented demographic change that will end primarily European domination of our society by mid-century, creating fundamentally different or ethnic majority. How this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, mostly globalized 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.

294A-M294B. High School Reform:Persisting Failure, Urgent Challenges. (1 to 8 each) (Same as Law M243A-M243B.) Seminar, four hours. Course M294A is open to M294B. Research seminars with focus on what is probably most serious and neglected problem in American educational reform, in past half century real progress has been made in school, graduation rates continue to grow in early grades have been produced, and very well-regarded system of higher education has been established—but reform of high school is needed. Exploration of institutional and structural 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 (M243A) 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 it took place. Study of his life and work in five phases: Brazilian Experience (1921 to 1964); Chilean Experience, where he published Education as Practice of Freedom and Pedagogy of Oppressed, as well as other lesser known works, while also devoting most of this period to empirical research in literacy training (1964 to 1974); work in Chilean National Council of Churches in Geneva (1970 to 1980), including his consulting with postcolonial revolutionary governments in Africa; his return to Brazil and his work as Secretary of Education in São Paulo (1980 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 implications, his analyses, critiques, and impact in world, his methodology of generative word, and comparisons with other theoretical referents. Letter grading.

   (2) Laboratory, two hours. Limited to creditable
   program students. Pedagogy for bilingual and English
   language learners. Discussion of competencies
   needed by teachers of English language
   instruction. Topics include: bilingualism, second
   language acquisition and use.

310. Professional Communication for Graduate
   Students in Education. (2) Lecture, two hours.
   Writing workshop on students’ papers in progress to
   ensure publication 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 stu-
   dents to demonstrate skills discussed. S/U grading.

312. Basic Principles of Curriculum and Instruc-
   tion. (4) Lecture, four hours. Analysis and practice of
   basic principles and concepts for planning, con-
   ducting, and evaluating units of curriculum and in-
   struction. Emphasis on study and utilization of variety
   of instructional strategies and their application in elem-
   entary and secondary schools. S/U or letter
   grading.

314. Principles and Methods for Curriculum, Instruc-
   tion, and Leadership in Mathematics. (6 to 12)
   Lecture, six to 12 hours. Problem solving, curric-
   ulum development, implementation of California
   Mathematics Framework and State standards in elemen-
   tary and secondary classrooms. Emphasis on encour-
   aging women and minorities into mathematics, and lead-
   ership development. S/U grading.

315. Principles and Methods for Teaching Reading
   for Multiple Subject Instruction. (3) Lecture,
   three hours. Reading instruction in elementary schools.
   Analysis of reading problems and programs; study of
   relationships between language/culture/cognition and
   reading. Examination and development of instruc-
   tional programs for effective and practical alternative
   instructional methods. Observation and participation in
   schools. Letter grading.

316A–316B. Principles and Methods for Teaching
   Reading for Single Subject Instruction. (2–6) Let-
   ture, two hours. Course 316A is requisite to 316B.
   Reading instruction in secondary schools. Analysis of
   reading programs; study of three reading relation-
   ships between language/culture/cognition and
   reading. Examination and development of instruc-
   tional programs; analysis and practice of alternative
   instructional methods. Observation and participation in

318A. Integrated Methods for Elementary Teach-
   ers. (3) Lecture, three hours. Examination and devel-
   opment of instructional programs and analyses and
   practices of instructional methods for teaching K-6
   content, with emphasis on interdisciplinary approach
   that integrates content areas. Aligned with California
   state frameworks and California content standards
   for grades K-12 that address needs and interests of di-
   verse students. Letter grading.

318B. Integrated Methods for Elementary Teach-
   ers. (4) Lecture, four hours. Examination and devel-
   opment 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, in-
   cluding English Language Development Standards—
   all of which address needs and interests of diverse
   students. Letter grading.

318C. Integrated Methods for Elementary Teach-
   ers. (5) Lecture, three 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. Letter grading.

319. Mathematics Methods. (3) Lecture, three hours.
   Discussion of self-directed 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. (3–3–3) Lecture, three hours. Emphasis
   on content and development of instructional programs
   and analyses and practices of instructional methods for
   teaching content in grades 7–12. Emphasis on inter-
   disciplinary approaches in context areas and
   infuses literacy, technology, and strategies for
   second language learners. Methods courses are
   aligned with California state frameworks and Cali-
   fornia 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. (3) Lecture, three hours. Exami-
   nation and development of instructional programs and
   analyses and practices of instructional methods for
   teaching ethnic studies in grades 7–12. 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 Chicanos
   and Latin Americans in the United States. Letter
   grading.

321B. Ethnic Studies Curriculum Development. (3)
   Lecture, three hours. Examination and development of
   theoretical frameworks around curriculum develop-
   ment in grades 7–12. Emphasis on interdisciplinary
   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. Ethnic studies curriculum focuses on Chicanos
   and Latin Americans in the United States. Letter
   grading.

326. Principles and Methods for Teaching Spanish
   Effectively. (2 to 6) Lecture, two to six hours. Em-
   phasis on proficiency-based foreign language
   teaching methods including language assessment
   skills, modeling, hands-on experiences, and develop-
   ment of teaching and teacher-training materials. S/U
   grading.

401. Structure and Functions of Schools as Complex Organizations. (4) Lecture, four hours. Critical analysis of myths and assumptions about organizations, how they function, and why people in organizations behave as they do. Application to special circumstances of schools, and to contemporary issues and problems in school leadership, improvement, and reform. S/U or letter grading.


403. Infant-Toddler Child Development and Care. (4) Lecture, four hours. Exploration of infant and toddler development (ages 0 to 3) and implications of development on their care and education. Introduction to major theories in child development, developmental milestones, and recent brain development research. Topics include family engagement, inclusion, risk conditions, developmentally appropriate practices, and assessment. S/U or letter grading.


405A. Exploring Communities. (2) Seminar, two hours. Limited to credential program students. Learning about urban communities by critically examining students' own beliefs, assumptions, and experiences about themselves, understanding and appreciating 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 experiences about themselves, understanding and appreciating about urban communities. Letter grading.

405C. Exploring Family-School 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. In-depth consideration of American society, particularly its racial and cultural diversity. Topics include historical development of American society, manifestations of cultural and ways to learn about students' cultures. Examination of issues of racism, ethnic and gender differences, perspectives of cultural diversity, and impact on educational and classroom instruction. Letter grading.

406B. Social Foundations and Cultural Diversity in American Education: Ethnic Studies Emphasis. (3) Lecture, three hours. Historical, social, political, and economic contexts of schooling in U.S., with special emphasis on perspectives and contributions from ethnic studies. Examination of central arguments central to understanding systemic processes, deficit-framing, meanings produced in cultural contexts, and agency and activism. Letter grading.


408B-408C. History of Curriculum, (2 each) Lecture, two hours. Exploration of complex nature of culture and impact of cultural diversity in urban classroom through class discussions, activities, and reflective research. Teacher's role to understand and participate in rich cultural diversity of urban Los Angeles. By exploring culture as tool and target for increasing understanding of multicultural diversity, teachers may construct meaningful connections to students, communities, and home cultures. Each course may be taken independently for credit. Letter grading. 408B. Latino/Latina Emphasis; 408C. Asian American Emphasis; 408U. General Topics.


410A-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. Designed to develop knowledge, understanding, and sensitivity to contemporary critical and emerging issues that impact higher education, with focus on both theory and practice. Study of relationships between higher education and higher education. 410B. Exploration of issues that affect both higher education and K-12 schooling, including restructuring, standards, access, accountability, and new technologies. Emphasis on both theory and practice.

411. Procedural Issues in Evaluation. (4) Lecture, four hours. Assessment methodologies appropriate for evaluation of various program evaluation proposals, developing program monitoring procedures, selecting appropriate evaluation design strategies, coping with ethical considerations in evaluation, framing decision context, and reporting evaluation results. Letter grading.

412. Why Research Matters to Student Affairs Practice. (3 or 4) Lecture, three hours. How do researchers study impact of college on students? How can university evaluation help improve 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 provide input on 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 comprehensiveness for English and 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, two hours. Offered and required for Bilingual Authorization Programs. Consideration of models for developing cultural and language skills of home speakers of language of emphasis; practice in 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 languages for delivery to non-native language students. Letter grading.

415C. Culture of Emphasis. (2 to 4) Lecture, three hours. Offered and required for Bilingual Authorization Programs. Conducted in language of authorization. Discussion of commonalities of culture of emphasis in its home country or countries; major historical periods and events, international, and personal and political values, beliefs, and expectations; migration and immigration; historical and contemporary demographic. Letter grading.

414A. Student Affairs Practice and Theory. (3) Lecture, two hours; discussion, two hours. Examination of needs for student affairs services, range of services, their philosophical and empirical rationale, and their organization and evaluation to provide knowledge base for development and practice. Ongoing involvement in cooperative learning project to examine these issues both as team members and as individuals. Offered in summer only. Letter grading.

414B. Legal and Ethical Issues in Student Affairs. (4) Lecture, two hours; discussion, two hours. Examination of legal and ethical issues that affect student affairs 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 programs, and contemporary 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 effectively administer programs or services under student affairs. Examination of current issues and trends in student affairs, roles of federal and state agencies in funding and managing, and student affairs programs and services. Offered in summer only. Letter grading.


415B. Advanced Assessment in Counseling Psychology. (4) Lecture, four hours. Requisite: course 415A. Advanced course in assessment for counseling psychologists. Survey and demonstration of instruments of achievement, affective, and personality appraisal, with emphasis on testing and interpreting 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, attitudes toward and effects of group process on individuals and groups. Evaluation of social,
psychological, and educational principles related to experiences of individuals in small groups. Letter grading.

419. Introduction to Research in Student Affairs. (4) Lecture, two hours; discussion, two hours. Designed to provide an introduction to educational-research search in context of student affairs. Overview of quantitative, qualitative, and mixed methods to position students as scholar-practitioners. Exposure to these methods supplemented by examination of how they are used in published research relevant to practice of student affairs. Letter grading.


421A. Programs and Research in Early Childhood Education. (4) Lecture, four hours. Preparation: one course from development series. Examination of child care programs and research in early childhood education, including review of relation of research in developmental psychology and education to goals of early childhood education and day care. S/U or letter grading.

421D. Parents and Community Agents in Child Development. (4) Lecture, four hours. Preparation: one course from development series. Critical review of theoretical basis and effectiveness of training programs for parents of young and elementary school-aged children; relation of preschool parent programs to family development; planning of programs in community. S/U or letter grading.


422. Inquiry into Schooling: Basic Issues. (4) Lecture, four hours. Critical examination of basic issues and problems in organization and reconstruction of precollege schooling. Consideration of historical development and changing functions of schooling in American society; school organization; schooling alternatives; 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 multidisciplinary programs; critical review of literature on cognitive and affective learning in social science, with emphasis on experimental study of instructional programs. S/U or letter grading.

424B. Reading in Curriculum. (4) Lecture, four hours. Requisite: course 230A. Study of reading curricula and instructional procedures, with emphasis on rationale and research underlying their development and research comparing their effectiveness. S/U or letter grading.

424G. Curriculum Design for Bilingual Education. (4) Lecture, four hours. Advanced study of curriculum design for bilingual educational programs. Philosophical basis for bilingual programs; theories of learning and instruction applied to bilingual learner; language assessment; instruction development component; program evaluation. S/U or letter grading.


426A-426B. Program Development and Program Evaluation in Student Affairs. (2–2) Lecture, two hours; discussion, one hour; laboratory, four hours. Requisite: course 426A. Concentrated review of methods and procedures related to student affairs, as well as knowledge of and skill in planning, implementing, and analyzing assessment projects within student affairs context. Study of basic theoretical perspectives underlying program design/implementation 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.

433A. Design of Learning Environments. (4) Discussion, four hours. Theory and practice of design of technology-supported learning environments. Examination of how theories of learning guide design and enactment of learning environments in classrooms and informal settings, and on such environments informs theory and design. 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. Development of knowledge of and skill in planning, as well as to assessment and program review. Letter grading.

440C. Administration of Instructional Programs. (4) Lecture, four hours. Examination of current educational problems in society and strategies of their solution through attention to 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-supported elements of instruction: task analysis, appropriate objectives, principles that increase motivation, rate and degree of learning, retention and transfer, monitoring and adjusting instruction to meet needs and capacities of learners. S/U or letter grading.


442B. Labor Relations Management and Practice. (4) Lecture, four hours. Examination of structures and kinds of law governing educational systems in U.S.; constitutional dimensions of church/state relations; employees' civil rights and legal aspects of hiring, firing, and negotiating procedures; student attendance, control, and civil rights. S/U or letter grading.

443. Policy Analysis in Education. (4) Lecture, four hours. Overview of educational site and local context of educational policy formation. Included in examination are issues that impact on minorities (e.g.,

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. S/U or letter grading.

448A. Urban School Leadership. (4) Lecture, four hours. Analysis of problems of urban school leadership. Emphasis on changing nature of urban principalship, with considerable attention to role of other school and community agencies that interact with urban school leaders. S/U or 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, contract negotiation, application of 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. Requisite: course 443B. Seminar: Educational Leadership Program students. Course taken 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 resource, political, and symbolic frames to study K-16 education. Letter grading. 452A. Focus on purposes of education—governance, finance, access, and equity. 452B. Requisite: course 452A. Focus on educational environments, organizations, and curriculum and instruction.

453. Technology in Education: Learning and Leading with Technology. (4) Lecture, two hours; discussion, two hours. Limited to Educational Leadership Program students. Examination of roles of technology in educational institutions and leadership issues associated with these roles. 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. Students carry out full cycle of action research at educational site. Projects done in teams as students hone and assess their collaboration abilities. Exploration of qualitative and quantitative data gathering methods and analyses. Letter grading.

454B. Action Research: Collaboration in Change. (4) Lecture, one hour; discussion, two hours; small group work, one hour. Limited to Educational Leadership Program students. Second course in two-course sequence on learning how to do and use action research. Honing 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. Limited to doctoral 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 orientation, examination of variety of approaches to organizational change and ways to sustain credit. S/U grading.

457. Student Development across K-16 Spectrum. (4) Discussion, four hours. Limited to Educational Leadership Program students. Theories of student development applicable to K-12 and postsecondary education. Focus on educational influences on self and others. Letter grading.

458A-458B-458C. Practicum: Dissertation. (2-2-2) Seminar, two hours; discussion, two hours. Preparation for educators to teach K-12 students to explore their relationships with media by critically questioning media representations and creating their own alternative media messages. Critical media literacy combines theoretical foundations of cultural studies and critical pedagogy with practical classroom applications of new digital media as well as traditional print-based means of communication. Exploration of media representations of race, class, gender, sexual orientation, and other identity markers. Educators develop their 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.

460. Seminar: Special Issues in Evaluation. (2 or 4) Seminar, two hours; discussion, one or two hours. Topics and instructors vary each term. Recent emphases included 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, and/or evaluation. S/U or letter grading.

464. Critical Media Literacy: Teaching Youth to Critically Read and Create Media. (4) Lecture, four hours. Preparation for educators to teach K-12 students to explore their relationships with media by critically questioning media representations and creating their own alternative media messages. Critical media literacy combines theoretical foundations of cultural studies and critical pedagogy with practical classroom applications of new digital media as well as traditional print-based means of communication. Exploration of media representations of race, class, gender, sexual orientation, and other identity markers. Educators develop their 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.


482A. Instructional Strategies in Urban Education: Technology. (4) Lecture, four hours. Emphasis on instructional strategies 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 processes and debriefing of field experiences integrating technology-related tools. Letter grading.

482B. Instructional Strategies in Urban Education: English Language Learners. (4) Lecture, four hours. Emphasis on instructional practices that support English language learners in urban public schools. Study and analysis of development 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 curriculums. Letter grading.

482C. Instructional Strategies in Urban Education: Special Populations. (4) Lecture, four hours. Emphasis on instructional practices that support special populations in urban public schools. Continuation of study of statutory provisions, curriculum, instruction, and assessment issues 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 strategies that integrate visual and performing arts into urban classrooms. Debriefing of field experiences implementing subject-centered arts instruction, instruction connecting arts disciplines, and instruction connecting arts disciplines and other core disciplines. Advanced exploration of elements of each art form, 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 supportive 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 approach, forms of debate, 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 systematically to apply and evaluate alternative instructional strategies. S/U or letter grading.


498A-498B-498C. Resident Seminars. (4-4-4) 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.

499A-499B-499C. 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. Directed Advanced Field Experience. (2 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) 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 who need to record enrollment in practical courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Independent Study. (1 to 12) Tutorial, to be arranged (one hour per unit). Individual study or research for graduate students. May be repeated for credit. S/U or letter grading.

597. Preparation for Master’s Comprehensive Examinations or Doctoral Qualifying Examinations. (1 to 12) Tutorial, to be arranged. Individual study for master’s comprehensive examinations or for PhD or EdD qualifying examinations. May be repeated for credit. S/U grading.


### ELECTRICAL AND COMPUTER ENGINEERING

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- Izhak Rubin, PhD
needs of industry, government, society, and the scientific community. Interactions with other disciplines are strong. Faculty members regularly conduct collaborative research projects with colleagues in the Geffen School of Medicine; Graduate School of Education and Information Studies; School of Theater, Film, and Television; and College of Letters and Science.

There are three primary research areas in the department: circuits and embedded systems, physical and wave electronics, and signals and systems. These areas cover a broad spectrum of specializations in, for example, communications and telecommunications, control systems, electromagnetics, embedded computing systems, engineering optimization, integrated circuits and systems, 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 a understanding of inventions of importance to society, such as integrated circuits, embedded systems, photonic devices, automatic computation and control, and telecommunication devices and systems.

Students are encouraged to make use of their electrical engineering electives and a two-semester capstone design course to pursue deeper knowledge within one of these areas according to their interests, whether for graduate study or preparation for employment. See the department website for examples of specializations.

Learning Outcomes

The Electrical Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, science, and engineering
- Design of a system, component, or process to meet desired needs within realistic constraints
- Function as a productive member of a multidisciplinary team
- Effective communication
- Identification, formulation, and solution of electrical engineering problems

Preparation for the Major

Required: Chemistry and Biochemistry 20A; Computer Science 31, 32; Electrical and Computer Engineering 2, 3, 10, 11L, M16 (or Computer Science M51A); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4A, 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, at least 8 of which must be upper-division electrical and computer engineering courses—the remaining 4 units may be from upper-division electrical and computer engineering courses or from another engineering school department; and one two-semester electrical and computer engineering capstone design course (8 units).

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 under-
standing of many inventions of importance to our society, such as the Internet of Things, human-cyber-physical systems, mobile/wearable/implantable systems, robotic systems, and more generally smart systems at all scales in diverse spheres. The design of hardware, software, and algorithmic elements of such systems represents an already dominant and rapidly growing part of the computer engineering profession. Students are encouraged to make use of their computer science and electrical and computer engineering electives and a two-quarter capstone design course to pursue deeper knowledge within one of these areas according to their interests, whether for graduate study or preparation for employment.

Learning Outcomes
The Computer Engineering major has the following learning outcomes:

- Application of mathematical, scientific, and engineering knowledge
- Design of a software or hardware system, component, or process to meet desired needs within realistic economic, environmental, social, ethical, health, safety, security, reliability, manufacturability, and sustainability constraints
- Function productively on a team with others
- Identification, formulation, and solution of computer engineering problems
- Effective communication

Preparation for the Major

Required: Computer Science 1 (or Electrical and Computer Engineering 1), 31, 32, 33, 35L, M51A (or Electrical and Computer Engineering 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 122B), 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.

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. (I) 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.), and energy generation, storage, and transmission. P/NP grading.

2. Physics for Electrical Engineers. (Formerly numbered Electrical Engineering 2) Lecture, four hours; discussion, 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.

2H. Physics for Electrical Engineers (Honors). (Formerly numbered Electrical Engineering 2H) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Physics 1C. Honors course, parallel to course 2. Letter grading.

3. Introduction to Electrical Engineering. (Formerly numbered Electrical Engineering 3) Lecture, two hours; laboratory, two hours; outside study, eight hours. Introduction to field of electrical engineering. Basic circuits techniques with application to explanation of electrical engineering inventions such as telecommunications, electrical grid, automatic computing and control, and enabling device technology. Research frontiers of electrical engineering. Introduction to measurement and design of electrical circuits. Letter grading.

10. Circuit Theory I. (Honors) (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 Engineering and Electrical Engineering majors). Introduction to linear circuit analysis. Resistive circuits, capacitors, inductors and ideal transformers, Kirchhoff laws, node and loop analysis, principle of superposition, Thevenin and Norton theorems, sinusoidal steady state. Letter grading.

10H. Circuit Theory I (Honors). (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 Engineering and Electrical Engineering majors). Mathematics 33B. Honors course, parallel to course 10. Letter grading.

11L. Circuits Laboratory I. (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 transformers. Ohm's law voltage and current division, Thevenin and Norton equivalent circuits, superposition, transient and steady state analysis. Letter grading.

M16. Logic Design of Digital Systems. (Formerly numbered Electrical Engineering M16.) Same as Computer Science M51A. Lecture, four hours; discussion, two hours; outside study, eight hours. Introduction to digital systems. Specification and implementation of combinational and sequential systems. Standard logic modules and programmable logic arrays. Specification and implementation of arithmetic systems: data and control sections. Number systems and arithmetic algorithms. Error control codes for digital information. 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 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

100. Electrical and Electronic Circuits. (Formerly numbered Electrical Engineering 100.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Mathematics 32A, 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. (Formerly numbered Electrical Engineering 101A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Mathematics 32A and 32B, or 33A and 33B, Physics 1C. Electromagnetic field concepts, wave propagation, waveguides, and Smith chart, transient responses, vector analysis, introduction to Maxwell equations, static and quasi-static electric and magnetic fields. Letter grading.

101B. Electromagnetic Waves. (Formerly numbered Electrical Engineering 101B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101A. Time-varying fields and Maxwell equations, plane wave propagation and interaction with media, energy flow and Poynting vector, guided waves in waveguides, phase and group velocity, radiation and antennas. Letter grading.


110. Circuit Theory II. (Formerly numbered Electrical Engineering 110) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced
requirements: courses 10, M16 (for 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.


115AL. Analog Electronics Laboratory I. (2) Formerly numbered Electrical Engineering 115AL. Laboratory, four hours; outside study, two hours. Enforced requisite: course 110. Experiments with electrical circuits containing resistors, capacitors, inductors, and op-amps. Ohm’s law voltage and current division, Thévenin and Norton equivalent circuits, superposition, transient and steady state analysis, and frequency response principles. Letter grading.

111L. Circuits Laboratory I. (1) Formerly numbered Electrical Engineering 111L. Lecture, one hour; laboratory, one hour; outside study, one hour. Enforced requisite: course 111L. Enforced corequisite: course 110. Experiments with electrical circuits containing resistors, capacitors, inductors, transformers, and op-amps. Steady state power analysis, frequency response principles, operational amplifiers, and op-amps. Continuous circuit synthesis, and two-port network principles. Letter grading.

112. Introduction to Power Systems. (4) Formerly numbered Electrical Engineering 112. Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 110. Complete overview of organization and operation of interconnected power systems. Development of appropriate models for interconnected power systems and learning how to perform power flow, economic dispatch, and short circuit analysis. Introduction to power system protection and control systems. 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, signal level, oscillators, Fourier transforms, and finite wordlength effects. Course project involving original design and implementation of a signal processing system for communications, speech, and audio using DSP chip. 113DA. Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: course 113. In progress grading (only on completion of course 113D). 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 numbered 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. Speech production, analysis, and modeling in first half of course; design techniques for image enhancement, filtering, and transformations in second half. Lectures supplemented by laboratory implementation of speech and image processing tasks. Letter grading.


115AL. Analog Electronics Laboratory I. (2) Formerly numbered Electrical Engineering 115AL. Laboratory, four hours; outside study, two hours. Enforced requisite: course 110. Experiments with electrical circuits containing resistors, capacitors, inductors, and op-amps. Ohm’s law voltage and current division, Thévenin and Norton equivalent circuits, superposition, transient and steady state analysis, and frequency response principles. 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, dynamic logic), integrated circuit (IC) layout, digital circuits (logic gates, flipflops/latches, counters, etc.), computer-aided simulation of digital circuits. Letter grading.

115E. Design Studies in Electronic Circuits. (4) Formerly numbered Electrical Engineering 115E. Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115B. Description of process of circuit design through lecture 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 and rigorous approach to practical circuit design problems. Lectures given in M116C. Computer Systems Architecture. (4) Formerly numbered Electrical Engineering 116C. (Same as Computer Science M151B.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 115B. Three hours; discussion, one hour; laboratory, two hours. Enforced corequisite: course 112B. Enforced requisite: course 116 or Computer Science M51A, Computer Science 33. Recommended: course 116L or Computer Science M51A, Computer Science 33. Computer system organization and design, implementation of CPU datapath and control, instruction set design, memory hierarchy (caches, main memory, virtual memory) organization and management, input/output subsystems (bus structures, interrupts, DMA), computer-aided performance evaluation, pipelined processors. Letter grading.


115M. Computer Networks: Physics and Systems. (4) Same as Computer Science M117M. Lecture, four hours; discussion, two hours; laboratory, two hours; outside study, six hours. Not open to students with credit for Computer Science 117M. Design and analysis of digital communications and networks, including random variables and vectors, distributions and densities, moments, characteristic functions, and 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 radio-equipped devices (smart phones, tablets, etc.) as sensor platforms for personal applications such as wireless health, positioning, and environment awareness, and experimental laboratory sessions included. Letter grading.

119M. Fundamentals of Embedded Networked Systems. (4) Formerly numbered Electrical Engineering M119M. Formerly numbered Electrical Engineering M119. (Same as Computer Science M119.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 2. Introduction to fundamental principles of operation of digital and MOS transistors, equivalent circuits, high-frequency behavior, voltage limitations. Letter grading.

121DA-121DB. Semiconductor Processing and Device Design. (4-4) Formerly numbered Electrical Engineering 121DA-121DB. An introduction to the processing and characterization of p-n junction and transistors. Students perform various practical processes such as wafer preparation, oxidation, diffusion, metallization, and photolithography. Introduction to CAD tools used in integrated circuit processing and device design. Device structure optimization tool based on MEDICI; process integration tool based on SUPREM. Course design projects and reports. Letter grading.

121DA. lecture, four hours; laboratory, four hours; outside study, four hours. Enforced corequisite: course 121B. In progress grading (credit to be given only on completion of course 121DB). 121DB. Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: courses 121B, 121DA. Letter grading.

123A. Fundamentals of Solid-State I. (4) Formerly numbered Electrical Engineering 123A. Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 123A. Discussions of solid-state properties, lattice vibrations, thermal properties, dielectric, magnetic, and superconducting properties. 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 superconducting properties. Letter grading.

128A. Principles of Nanoelectronics. (4) Formerly numbered Electrical Engineering 128A. Lecture, four hours; discussion, four hours; outside study, four hours. Enforced requisite: Physics 1C. Introduction to fundamentals of nanoelectronics. Application of fundamental principles of electron charge, effective mass, Bohr magneton, and spin, as well as theoretical approaches. From these nanoscale components, discussion of basic behaviors of nanoscale components to circuit design. Analysis of dynamics, variability, and noise, contrasted with those of scaled CMOS. Incorporation of design project in which students are challenged to design electronic nanosystems. Letter grading.

131A. Probability and Statistics. (4) Formerly numbered Electrical Engineering 131A. Lecture, four hours; discussion, one hour; outside study, 10 hours. Requisites: course 102 (enforced), Mathematics 32B, 33B. Introduction to basic ideas of probability and statistics, including random variables and vectors, distributions and densities, moments, characteristic functions, and...
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, basics of hypothesis testing, sufficient statistics and waveforms classification. Design tradeoffs of channel filtering, modulation, and demodulation. Letter grading.

132B. Data Communications and Telecommunication Networks. (4) (Formerly numbered Electrical Engineering 132B) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 131A. Layered communications architectures. Queueing system modeling and analysis. Error control, flow and congestion control. Packet switching, circuit switching, and routing. Network performance analysis and design. Multiple-access communications: TDMA, FDMA, polling, random access. Local, metropolitan, wide area, integrated services networks: TDMA, FDMA, polling, random access. Letter grading.

133A. Applied Numerical Computing. (4) (Formerly numbered Electrical Engineering 133A) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 131A, and Civil Engineering 115A. Understanding and implementation of fundamental properties of electrical activity in neurons; technology, for measuring neural activity; spiking statistics and Poisson processes; generative models and classification techniques. Letter grading.

133B. Simulation, Optimization, and Data Analysis. (4) (Formerly numbered Electrical Engineering 133B) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 1C, 4AL, 4BL. Introduction to general manufacturing processes, mechanisms, constraints, and microfabrication and nanofabrication. Focus on concepts, physical and numerical methods, and fundamental aspects of micro 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 nanostructures in modern cleanroom environment. Letter grading.

134. Graph Theory in Engineering. (4) (Formerly numbered Electrical Engineering 134.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 133A, and Electrical and Computer Engineering 163DA. Analysis of engineering problems using graph theoretical methods. Letter grading.


142. Linear Systems: State-Space Approach. (4) (Formerly numbered Electrical Engineering 142.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 102. State-space methods of linear system analysis and synthesis, with application to process control, networks, control, and system modeling. Letter grading.

C143A. Neural Signal Processing and Machine Learning. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 115B. His course introduces fundamental properties of electrical activity in neurons; technology, for measuring neural activity; spiking statistics and Poisson processes; generative models and classification techniques. Letter grading.

M146. Introduction to Machine Learning. (4) (Formerly numbered Electrical Engineering 146.) Same as Computer Science M146.) Lecture, four hours; discussion, one hour; outside study, seven hours. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing. (4) (Formerly numbered Electrical Engineering 153A, Chemical Engineering 153, and Mechanical and Aerospace Engineering M120.) Lecture, four hours; laboratory, four hours; discussion, one hour; outside study, five hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 1C, 4AL, 4BL. Introduction to general manufacturing methods, mechanisms, constraints, and microfabrication and nanofabrication. Focus on concepts, physical and numerical methods, and fundamental aspects of micro 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 nanostructures in modern cleanroom environment. Letter grading.

152A. Wireless Communication Links and Antennas. (4) (Formerly numbered Electrical Engineering 152A.) Lecture, four hours; discussion, one hour; outside study, six hours. Enforced requisites: course 115B. Transmission lines, matching networks, impedance matching techniques, power dividers, directional couplers, active devices, transistor amplifier design. Letter grading.

163A. Microwave and Wireless Design I. (4) (Formerly numbered Electrical Engineering 163A.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisites: courses 101A, 101B. Course 163A is enforced requisite to course 163DB. Limited to seniors. Not open to students with credit for coursework in microwave and wireless circuit design experiences. Standard course design procedure for waveguide and transmission line-based microwave circuits and systems to gain experience in using Microwave CAD software such as Agilent ADS or HFSST. How to fabricate and test these designs. In Progress grading (credit to be given only on completion of course 163DB).

163DB. Microwave and Wireless Design II. (4) (Formerly numbered Electrical Engineering 163DB.) Lecture, one hour; laboratory, three hours; outside study, eight hours. Enforced requisites: courses 101A, 101B, 163A. Limited to senior Electrical Engineering majors. Design of radio frequency circuits and systems, with emphasis on both theoretical foundations and hands-on experience with physical realizations of radio frequency transceivers and their building blocks according to given specifications or in form of open-ended problems. Introduction to advanced topics related to projects through lecture and laboratories. Creation by students of end-to-end systems in application context, managing trade-offs across subsystems while meeting constraints and optimizing metrics related to design, performance, manufacturability, testing, and other real-world issues. Oral and written presentations of project results required. Letter grading.

164DA-164DB. Radio Frequency Design Project I, II. (4–4) (Formerly numbered Electrical Engineering 164DA-164DB.) Lecture, one hour; laboratory, three hours; outside study, eight hours. Enforced requisites: course 115B. Course 164DA is enforced requisite to course 164DB. Limited to senior Electrical Engineering majors. Design of radio frequency circuits and systems, with emphasis on both theoretical foundations and hands-on experience with physical realizations of radio frequency transceivers and their building blocks according to given specifications or in form of open-ended problems. Introduction to advanced topics related to projects through lecture and laboratories. Creation by students of end-to-end systems in application context, managing trade-offs across subsystems while meeting constraints and optimizing metrics related to design, performance, manufacturability, testing, and other real-world issues. Oral and written presentations of project results required. In Progress (164DA) and letter (164DB) grading.

170A. Principles of Photonics. (4) (Formerly numbered Electrical Engineering 170A) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisites: courses 2, 101A. Development of solid foundation on essential principles of three-dimensional wave phenomena, for knowledge or understanding on this subject. Topics include optical properties of materials, optical wave propagation and modes, optical interferometers and resonators, optical coupling and modulation, two- and threemodulation, light-emitting diodes, optical detection. Letter grading.

170B. Photonic Devices and Circuits. (4) (Formerly numbered Electrical Engineering 170B) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisites: courses 2, 101A. Coverage of core knowledge of practical photonic devices and circuits. Topics include optical fibers, optical fibers, optical couplers, optical modulators, lasers and light-emitting diodes, optical detectors, and integrated photonic devices and circuits. Letter grading.

170C. Photonic Sensors and Solar Cells. (4) (Formerly numbered Electrical Engineering 170C) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisites: course 170A. Introduction to fundamental aspects of photonic sensors and circuits, as well as conversion of light to electrical energy in solar cells. Introduction to radiometry, semiconductor photodiodes, noise processes and figures of merit, thermal detectors, and photovoltaic solar cells of various types and materials. Letter grading.

M171L. Data Communication Systems Laboratory. (2 to 4) (Formerly numbered Electrical Engineering 171L.) (Same as Computer Science M171L) Laboratory, four to eight hours. Recommended preparation: course M116L. Limited to seniors. Not open to students with credit
for course M117. Interpretation of analog-signaling aspects of digital systems and 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, desktop computers, terminals, modern 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 hours; laboratory, two hours; outside study, eight hours. Enforced requisites: courses 101A, 173DA. Analysis of fundamental principles of modeling and optimization codeveloped with various applications. Oral and written presentation of project results. In Progress grading (credit to be given only on completion of course 183DB).

183DB. Design of Robotic Systems I. (4) (Formerly numbered Electrical Engineering 183DB.) Laboratory, four hours; discussion, one hour; outside study, seven hours. Required: course 183DA. Recommended: courses 141, 142, 144. Limited to senior Electrical Engineering majors. Topics in robotic design include integrated electromechanical design, embedded operating system, design automation. Topics in robotic manufacturing include materials, 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 distributed and multi-robot systems, bio-inspired robotics, project management, and societal implications. Open-ended projects vary annually. Student teams create and analyze robotic systems for various applications. Oral and written presentation of project results. Letter grading.

184DA-184DB. Independent Group Project Design. (2–2) (Formerly numbered Electrical Engineering 184DA-184DB.) Laboratory, five hours; discussion, one hour. Enforced requisites: courses M16, 110, 110B. Formerly Physic 110A. Lecture, one hour; laboratory, five hours. Courses centered on group project that runs year long to give students intensive experience on hardware design, microcontroller programming, and project coordination. Based on autonomous robots that traverse small mazes and courses offered yearly and target regional competitions. Students may submit proposals that are evaluated and approved by faculty members. Topics include design principles of circuit and microcontroller-based design, microcontroller programming, feedback control, and motor control. In Progress (184DA) and letter (184DB) grading.

M165. Introduction to Plasma Electronics. (4) (Formerly numbered Electrical Engineering M165.) Same as Physics M122.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 101A or Physics 110A. Senior-level introductory course on the fundamentals of charged ion gases and applications to materials processing, generation of coherent radiation and particle beams, and renewable energy sources. Letter grading.

188. Special Courses in Electrical Engineering. (4) (Formerly numbered Electrical Engineering 188.) Seminar, four hours; outside study, eight hours. Special topics in electrical engineering. Enrolled students must obtain approval from instructor. Additional topics may be selected to include teaching in new area of wireless health. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

194. Research Group Seminars: Electrical Engineering. (2 to 4) (Formerly numbered Electrical Engineering 194.) Seminar, four hours; outside study, eight hours. Designed for graduate students who are part of research group. Discussion of recent methods and current literature in field may be repeated for credit. Letter grading.

199. Directed Research in Electrical Engineering. (2 to 8) (Formerly numbered Electrical Engineering 199.) Tutorial, to be arranged. Limited to graduate students. 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 permits available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

201A. VLSI Design Automation. (4) (Formerly numbered Electrical Engineering 201A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Required: 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 multi-core systems; high-level synthesis, logic synthesis, and technology mapping; physical design; and testing and verification. Letter grading.

201B. Modeling of VLSI Circuits and Systems. (4) (Formerly numbered Electrical Engineering 201C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Required: course 115C. Detailed study of VLSI circuit and system models considering performance, power consumption, reliability and multi-factors, reliability, and manufacturability. Discussion of principles of modeling and optimization codevelopment. Letter grading.

201D. Design in Nanoscale Technologies. (4) (Formerly numbered Electrical Engineering 201D.) Lecture, four hours; discussion, one hour. Enforced requisite: course 115C. Challenges of digital circuit design in a new area of nanoscale technology, with focus on design-manufacturing interactions. Summary of large-scale digital design flow; basic manufacturing flow; lithographic patterning, resolution enhancement, and mask preparation; circuit reliability; circuit design and aging issues; design rules and their origins; design for manufacturing; test structures and process control; circuit area and architecture methods for variability mitigation. Letter grading.

M202A. Embedded Systems. (4) (Formerly numbered Electrical Engineering M202A.) Same as Computer Science M213A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Designed for graduate computer science and electrical engineering students. Methodologies and technologies for design of embedded systems. Topics include hardware and software platform for embedded systems, techniques for modeling and specification of system behavior, software organization, real-time operating system scheduling, real-time communication and packet scheduling, low-power battery and energy-aware system design, timing synchronization, fault tolerance and debugging, and techniques for hardware and software architecture optimization. Theory foundations as well as practical design methods. Letter grading.

M202B. Energy-Aware Computing and Cyber-Physical Systems. (4) (Formerly numbered Electrical Engineering M202B.) Lecture, three hours; laboratory, two hours; outside study, six hours. Required: course 115C. Programming languages and software platforms for next generation cyber-physical systems, techniques for modeling and specification of system behavior, software organization, real-time operating system scheduling, real-time communication and packet scheduling, low-power battery and energy-aware system design, timing synchronization, fault tolerance and debugging, and techniques for hardware and software architecture optimization. Theory foundations as well as practical design methods. Letter grading.

202C. Networked Embedded Systems Design. (4) (Formerly numbered Electrical Engineering 202C.) Lecture, four hours; laboratory, two hours; outside study, four hours. Designed for graduate computer science and electrical engineering students. Training in combination of networked embedded systems design techniques, embedded operating system, and hardware/software interface. Essential graduate student background for research and industry careers in wireless devices for applications ranging from conventional wireless mobile devices to new area of wireless health, Labo-
205A. Matrix Analysis for Scientists and Engineers. (4) (Formerly numbered Electrical Engineering 205A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: One undergraduate linear algebra course. Designed for first-year graduate students in all branches of engineering, science, and related disciplines. Introduction to matrix theory and linear algebra in which virtually all of modern science and engineering is conducted. Review of matrices taught in undergraduate courses and introduction to graduate-level topics. Letter grading.


207A. Digital Signal Processing. (4) (Formerly numbered Electrical Engineering 207A.) Lecture, four hours; outside study, eight hours. Requisites: course 208A (or Mathematics 115A and 115B), Mathematics 131A, 131B, 132. Topics may include L"{u}p spaces, Hilbert, Banach, and Fourier transform; functionals; Riesz representation theory, linear operators and their adjoints; self-adjoint and compact operators. Spectral theory. Differential operators such as Laplacian and Dirac problems. Resonant distributions and Green's functions. Semigroups. Applications. S/U or letter grading.


209A. Analog Integrated Circuit Design. (4) (Formerly numbered Electrical Engineering 209A.) 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.

209B. Seminar: Circuits and Embedded Systems. (2 to 4) (Formerly numbered Electrical Engineering 209B.) Seminar, two to four hours; outside study, four to eight hours. Seminars and discussions on current and advanced topics in one or more aspects of circuits and embedded systems, such as digital, analog, mixed-signal, and radio frequency integrated circuits (RF ICs); electronic design automation; wireless communication circuits and systems; embedded processor architectures; embedded software; distributed sensor and actuator networks; robotics; and embedded security. May be repeated for credit with topic change. S/U or letter grading.

210A. Adaptation and Learning. (4) (Formerly numbered Electrical Engineering 210A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: prior training in probability theory, random processes, and linear algebra. Recommended requisites: courses 205A, 241A. Mean-square error estimation and filters, least-squares estimation and filters, stochastic-least-change algorithms, stochastic-gradient algorithms, convergence, stability, tracking, and performance, algorithms for adaptation and learning, adaptive filters, learning and classification, optimization. Letter grading.


211A. Digital Image Processing I. (4) (Formerly numbered Electrical Engineering 211A.) Lecture, three hours; discussion, one hour; laboratory, four hours; outside study, four hours. Preparation: prior training in probability theory, random processes, and linear algebra. Recommended requisites: courses 205A, 241A. Mean-square error estimation and filters, least-squares estimation and filters, stochastic-least-change algorithms, stochastic-gradient algorithms, convergence, stability, tracking, and performance, algorithms for adaptation and learning, adaptive filters, learning and classification, optimization. Letter grading.


212B. Analysis and Design of RF Circuits and Systems. (4) (Formerly numbered Electrical Engineering 212B.) Lecture, four hours; discussion, one hour; laboratory, four hours; outside study, two hours. Preparation: prior training in probability theory, random processes, and linear algebra. Required requisites: course 211B. Analysis and design of RF circuits and systems. Basic circuit elements, active elements, passive elements, LSI architectures and VLSI design tools. Letter grading.

213A. Advanced Topics in Speech Processing. (4) (Formerly numbered Electrical Engineering 213A.) Lecture, three hours; discussion, one hour; computer programming experience. Required requisites: course 212A. Fundamentals of digital image processing theory and techniques. Topics include two-dimensional linear system theory, image transforms, and enhancement. Concepts covered include: image, computer laboratory assignments. Letter grading.

214A. Digital Speech Processing. (4) (Formerly numbered Electrical Engineering 214A.) (Same as Bioengineering M214A.) Lecture, four hours; discussion, two hours; outside study, seven hours. Requisite: course 113. Theory and applications of digital processing of speech signals. Mathematical models of human speech production and perception mechanisms, speech analysis/synthesis. Techniques include linear prediction, filter-bank models, and homomorphic filtering. Applications to speech synthesis, automatic recognition, and hearing aids. Letter grading.

214B. Advanced Topics in Speech Processing. (4) (Formerly numbered Electrical Engineering 214B.) Lecture, three hours; discussion, one hour; computer programming experience. Required requisites: course 214A. Advanced techniques used in various speech-processing applications, with focus on speech recognition by humans and machine. Physical basis of speech and 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.

215A. Analog Integrated Circuit Design. (4) (Formerly numbered Electrical Engineering 215A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 115B. Analysis and design of circuits for system applications. Design automation, analog, digital, and mixed-signal circuits. Application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. Letter grading.

215B. Advanced Digital Integrated Circuits. (4) (Formerly numbered Electrical Engineering 215B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 115C, 215A. Analysis and comparison of modern logic families, digital, and analog VLSI architectures and VLSI design tools. Letter grading.

215C. Analysis and Design of RF Circuits and Systems. (4) (Formerly numbered Electrical Engineering 215C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 215B. Principles of RF circuit and system design, with emphasis on monolithic implementation in VLSI technologies. Basic concepts, communications background, transceiver architectures, low-noise amplifiers and mixers, oscillators, frequency synthesizers, power amplifiers. Letter grading.

215D. Advanced Microsystem Design. (4) (Formerly numbered Electrical Engineering 215D.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 215A. Analysis and design of data conversion interfaces and filters. Sampling circuits and systems, such as ADC/DC converters. Design and analysis of A/D converter architectures, building blocks, precision techniques, discrete- and continuous-time filters. Letter grading.

215E. Signal Processing and Synchronization. (4) (Formerly numbered Electrical Engineering 215E.) Lecture, four hours; outside study, eight hours. Requisites: courses 215A, 216A. Analysis and design of circuits for synchronization and communication for VLSI systems. Use of both digital and analog design techniques to improve data rate of electronics between functional blocks, chips, and systems. Advanced clocking methodologies, phase-locked loop design for clock generation, and high-performance wire-line transmitters, receivers, and timing recovery circuits. Letter grading.

216A. Design of VLSI Circuits and Systems. (4) (Formerly numbered Electrical Engineering 216A.) Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, two hours. Requisites: courses 216B or 216C, and 115A. Recommended: course 115C. LSI/VLSI design and applications in computer systems. Fundamental design techniques that can be used to implement complex integrated systems on chips. Letter grading.

216B. VLSI Signal Processing. (4) (Formerly numbered Electrical Engineering 216B.) Lecture, four hours; outside study, eight hours. Advanced concepts in VLSI signal processing, with emphasis on architecture and optimization within block-based description that can be mapped to hardware. Fundamental concepts from digital signal processing (DSP) theory, architecture, and circuit design applied to complex DSP algorithms in emerging applications for personal communications and healthcare. Letter grading.

216C. LSI in Computer System Design. (4) (Formerly numbered Electrical Engineering 216C.) Lecture, four hours; discussion, one hour; outside study, four hours. Requisite: course 216A. LSI/VLSI design and applications in computer systems. In-depth studies of VLSI architectures and VLSI design tools. Letter grading.

217. Biomedical Imaging. (4) (Formerly numbered Electrical Engineering 217.) (Same as Bioengineering M217.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 114 or 211A. Optical imaging modalities in biomedicine. Other nonoptical imaging modalities discussed briefly for comparison purposes. Letter grading.

218. Network Economics and Game Theory. (4) (Formerly numbered Electrical Engineering 218.) Lecture, four hours; discussion, one hour; outside study, seven hours. Discussion of how different cooperative and noncooperative games among agents can be constructed to model, analyze, optimize, and shape emerging interactions among agents in different network and system settings. How strategic agents can successfully compete with each other for limited and time-varying resources by optimizing their decision process and learning from their past interaction with other agents. To determine their optimal actions in these distributed, informationally decentralized environments, agents need to learn and model directly or implicitly other agents' responses to their actions. Discussion of existing techniques and learning in games, including adjustment processes for learning equilibria, fictitious play, regret-learning, and more. Letter grading.
219. Large-Scale Data Mining: Models and Algorithms. (4) (Formerly numbered Electrical Engineering 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 engines, different types of regularization and sparse learning, deep learning, and Bayesian graphical models. Emphasis on techniques to evaluate relative performance of different methods and their applicability. Includes computer projects that explore real data analysis and modeling cycle: collecting and cleaning large-scale data, deriving predictive and causal models, and evaluating performance of different models. Letter grading.

221A. Physics of Semiconductor Devices I. (4) (Formerly numbered Electrical Engineering 221A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Physical principles and design considerations of junction devices. Letter grading.

221B. Physics of Semiconductor Devices II. (4) (Formerly numbered Electrical Engineering 221B.) Lecture, four hours; outside study, eight hours. Principles and design considerations of field effect devices and charge transport. Letter grading.

221C. Microwave Semiconductor Devices. (4) (Formerly numbered Electrical Engineering 221C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Physical principles and design considerations of microwave devices, such as heterojunction 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 270. Energy band theory, electronic band structure of various elements, different types of regularization and sparse learning, deep learning, and Bayesian graphical models. Emphasis on techniques to evaluate relative performance of different methods and their applicability. Includes computer projects that explore real data analysis and modeling cycle: collecting and cleaning large-scale data, deriving predictive and causal models, and evaluating performance of different models. 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 270. Energy band theory, electronic band structure of various elements, compound, and alloy 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. Requisite: course 223. Techniques for 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 225S.) Lecture, four hours; outside study, eight hours. Requisite: course 222.Current research areas, such as radiation effects in semiconductor devices, diffusion in semiconductors, optical and microwave semiconductor devices, non-radiative recombination, and bulk carrier and linear emission. Letter grading.

229. Advanced Electrical Engineering Seminar. (2) (Formerly numbered Electrical Engineering 229S.) 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 topics and on research topics 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. Requisite: course 131A. Applications of 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) estimators and algorithms; detection under ML, Bayes, and Neyman-Pearson (NP) criteria; signal-to-noise ratio (SNR) and error probability evaluations. Introduction to Monte Carlo simulations. Letter grading.


230C. Signal Processing in Communications. (4) (Formerly numbered Electrical Engineering 230C.) Lecture, four hours; outside study, eight hours. Requisite: courses 131A, 230A. Concepts and implementations of signal processing in communication and signal processing systems. Spectral analysis using Fourier transform and windowing, parametric modeling, compensation of physical and multipath effects, wavelet transform, and sub-band processing. Array processing using beamforming for SNR enhancement, smart antennas, and source separation and localization. Introduction to compressive sensing and sampling applications. Letter grading.


231A. Information Theory: Channel and Source Coding. (4) (Formerly numbered Electrical Engineering 231A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Fundamentals of information compression, transmission, processing, and learning. Topics include limits and algorithms for lossless data compression, connections to coding, and learning, channel capacity, rate versus distortion in lossy compression, and basic information theory for networks. Letter grading.

231B. Network Information Theory. (4) (Formerly numbered Electrical Engineering 231B.) Lecture, four hours; outside study, eight hours. Enforced requisite: course 231A. Point-to-point multiple-input, multiple-output (MIMO) wireless channels; capacity and outage; single-hop networks; multiple access, broadcast, interference, and relay channels; channels and sources with side-information; basics of multiterminal information compression; basics of network information flow over general noisy networks. Letter grading.

231E. Channel Coding Theory. (4) (Formerly numbered Electrical Engineering 231E.) Lecture, four hours; outside study, eight hours. Requisite: course 131A. Fundamentals of error control codes and decoding algorithms. Topics include block codes, 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. Requisite: course 131A. Stochastic processes as applied to study of telecommunication systems, traffic engineering, business and management, and queueing systems. Introduction to renewal and semi-Markovian queueing processes. Renewal processes, regenerative processes, Markov-renewal, semi-Markov and semi-Markovian stochastic processes. Introduction of various traffic models, and applications to traffic and queuing 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. Requisite: course 131A. Modeling, analysis, and design of queueing systems with applications to switching and communication networks, wireless, wireless systems and networks, and business and management systems. Modeling, analysis, and design of Markovian and non-Markovian queueing systems in a variety of service networks with applications to computer communications, Internet, and management networks. Letter grading.


232E. Large-Scale Social and Complex Networks: Design and Algorithms. (4) (Formerly numbered Electrical Engineering 232E.) Lecture, four hours; outside study, seven hours. Enforced requisite: course 231A. Applications of complex network theory to social networks. Modeling of characteristic topological features of complex networks, such as power laws and percolation threshold. Mining topology to design algorithms for various applications, such as e-mail spam detection, friendship recommendations, viral popularity, and epidemics. Introduction to network algorithms, computational complexity, and nondeterministic polynomial-time completeness. Letter grading.

233. Wireless Communications System Design, Modeling, and Implementation. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 113. Covers algorithms, architectures, and implementation of wireless transceivers, physical, and network layer functionalities. Topics include wireless channel modeling, single-carrier and multi-carrier systems, multi-antenna systems, impairments of wireless architectures and circuits, and design trade-offs, wideband spectrum sensing, wideband signaling, cognitive radio, massive multiple-input, multiple-output (MIMO) systems and applications in Internet of Things (IoT) communication. Letter grading.

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 the- orem in network coding, combinatorial approach and alphabet size, linear programming approach and
throughput benefits, network code design algorithms, secure networking, network coding for wireless, other applications. Letter grading.


236B. Convex Optimization. (Formerly numbered Electrical Engineering 236B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended: course 236B. First-order algorithms for convex optimization: subgradient method, conjugate gradient method, proximal point algorithms. Second-order algorithms: inexact Newton methods, interior-point algorithms for conic optimization. Letter grading.

M237. Dynamic Programming. (Formerly numbered Electrical Engineering 236C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended requisite: course 232A or 236A or 236B. Introduction to mathematical analysis of sequential decision processes. Finite horizon model in both deterministic and stochastic cases. Finite-state infinite horizon model. Methods of solution. Examples from inventory theory, finance, and control and estimation. Markov decision processes, combinatorial optimization, communications. Letter grading.

238. Multimedia Communications and Processing. (Formerly numbered Electrical Engineering 238B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Key concepts, principles, and algorithms of online learning and learning how to make decisions under uncertainty. Reinforcement learning, including Markov decision processes, optimal stopping, reinforcement learning, structural results for online learning, multiarmed bandits learning, multilagent learning, multiagent deep learning. Letter grading.

239AS. Special Topics in Signals and Systems. (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, telecommunications, 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, one hour; outside study, four to eight hours. Seminars and discussions on current 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, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U grading.

M240A. Linear Dynamic Systems. (Formerly numbered Electrical Engineering M240A.) Same as Chemical Engineering M208A and Mechanical and Aerospace Engineering M207A. Lecture, four hours; outside study, eight hours. Requisite: course 141 or Mechanical and Aerospace Engineering 171A. State-space description of linear time-invariant (LTI) and time-varying (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, singular values, Cayley-Hamilton theorem, Jordan form; solution of state equations; stability; controllability, observability, and minimality. Stabilization design via state feedback and observers; separation principle. Connections with transfer function techniques. Letter grading.

M240C. Optimal Control. (Formerly numbered Electrical Engineering M240C and Mechanical and Aerospace Engineering M208C.) Lecture, four hours; outside study, eight hours. Requisite: course 240B. Application of the Pontryagin maximum principle, Hamilton/Jacobi/Bellman equation (dynamic programming) to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. Letter grading.

241A. Stochastic Processes. (Formerly numbered Electrical Engineering 241A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 232A or 236A or 236B. Introduction to probabilistic models and their applications. Random variables and distribution functions. Probability generating functions and characteristic functions. Sums of random variables and the central limit theorem. Markov processes. Martingales. Letter grading.


C243A. Neural Signal Processing and Machine Learning. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 131A, 33A. Topics include fundamental properties of electrical activity in neurons; technology for measuring neural activity; spike timing and Poisson processes; generating models and classification; regression and Kalman filtering; principal components analysis, factor analysis, and expectation maximization. Concurrently scheduled with course C143A. Letter grading.

M248S. Seminar: Systems, Dynamics, and Control Topics. (2) (Formerly numbered Electrical Engineering M248S.) Same as Chemical Engineering M297 and Mechanical and Aerospace Engineering M299A. Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of electrical, computer, and control. Students who work in these fields present their papers and results. S/U grading.

M250A. 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 combination in the formation of MEMS. 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.) Same as Bioengineering M252 and Mechanical and Aerospace Engineering M282E. Lecture, four hours; outside study, eight hours. Introduction to MEMS design. Design methods, design rules, sensing and actuation mechanisms, microsensors, and microactuators. Designing MEMS to be produced with both ferro and non-ferro and how processes to design. Computer-aided design for MEMS. Design project required. Letter grading.

M255. Neuroengineering. (4) (Formerly numbered Electrical Engineering M255.) Same as Bioengineering M255B and Neuroscience M255C. Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 1B or SC. Introduction to principles and technologies of bioelectricity and neural circuit recording, processing, and stimulation. Topics include bioelectricity, electrophysiology (action potentials, local field potentials, EEG, ECOG), intracellular and extracellular recording, modeling of neurons, extracellular and intracellular processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulation artifact removal), brain-computer interfaces, deep-brain stimulation, and prosthetics. Letter grade or S/U grading.


M257. Nanoscience and Technology. (4) (Formerly numbered Electrical Engineering M257.) Same as Mechanical and Aerospace Engineering M287. Lecture, four hours; outside study, eight hours. Introduction to the fundamentals of nanotechnology. Basic physical principles, quantum mechanics, chemical bonding and nanostructures, top-down and bottom-up (self-assembly) nanofabrication; nanofabrication and nanofabrication; nanoelectronics, and nanobiofabrication technology. Introduction to new knowledge and techniques in nano areas to understand scientific principles behind nanotechnology and inspire students to create new ideas in multidisciplinary nano areas. Letter grading.


261. Microwave and Millimeter Wave Circuits. (4) (Formerly numbered Electrical Engineering 261.) Lecture, four hours; discussion, four hours; outside study, seven hours. Requisite: course 163A. Rectangular and circular waveguides, microstrip, stripline, finline, and dielectric waveguide distributed circuits, with applications. Principles and design of waveguide, millimeter wave inter- grated circuits. Substrate materials, surface wave phenomena. Analytical methods for discontinuity ef- fects. Design of passive microwave and millimeter wave circuits. Letter grading.


266. Computational Methods for Electromagnetics. (4) (Formerly numbered Electrical Engineering 266.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 162A, 163A. Computational techniques for partial and integral equations. Finite difference, finite element method, method of moments. Applications include transmission line resonators, integrated circuits, solid-state device modeling, electromagnetic scattering, and antennas. Letter grading.

270. Applied Quantum Mechanics. (4) (Formerly numbered Electrical Engineering 270.) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: modern physics (or course 123A), linear algebra. Topics in quantum mechanics. Quantum harmonic oscillator, central force problems, Hilbert spaces, WKB approximation, matrix mechanics, density matrix formalism, and radiation theory. Letter grading.


274. Optical Communication and Sensing Design. (4) (Formerly numbered Electrical Engineering 274.) Lecture, three hours; outside study, one hour. Requi- sites: courses 170A and 170B or equivalent. Top- down introduction to physical layer design in fiber optic communication systems, including Telecom, Datacom, and Fiber-Bus standards. Analytical and en- abling optical communication systems, fiber transmis- sion characteristics, and optical modulation tech- niques, including direct and external modulation and continuous and pulsed laser operation. Numerical tech- niques for fiber optic transceiver circuits, including preamplifier, quantizer, clock and data recovery, laser driver, and predistortion circuits. Letter grading.

279AS. Special Topics in Physical and Wave Elec- tronics. (4) (Formerly numbered Electrical Engi- neering 279AS.) Lecture, four hours; discussion, on hour; outside study, seven hours. Special topics in one or more aspects of physical and wave elec- tronics, such as electromagnetics, microwave and millimeter wave circuits, photonics and optoelectronics, plasma electronics, microelectromechanical systems, solid state, and nanotechnology. May be repeated for credit with topic change and graduate advisor approval.

279BS. Seminar: Physical and Wave Electronics. (2-4) (Formerly numbered Electrical Engineering 279BS.) Seminar, two to four hours; outside study, four hours. Preparation: graduate standing. Discussion of current and advanced topics in one or more aspects of physical and wave electronics, such as electromagnetics, microwave and millimeter wave circuits, pho- tonics and optoelectronics, plasma electronics, mi- croelectromechanical systems, solid state, and nano- technology. May be repeated for credit with topic change and graduate advisor approval.

279CS. Green IGERT Brown-Bag Seminar. (1) (Formerly numbered Electrical Engineering 279CS.) Seminar, one hour. Required of students in Clean Energy for Green Industry (IGERT) Research. Literature seminars presented by graduate students and experts from around country who conduct re- search in energy harvest, storage, and conservation. S/U grading.

CM262. Science, Technology, and Public Policy. (4) (CM282) (Same as Public Policy CM282.) Lecture, three hours. Recent and continuing advances in sci- ence and technology are raising profoundly important public policy questions. This course provides an overview of critical policy issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects. Concurrently scheduled with course CM182.


285B. Advanced Plasma Waves and Instabilities. (4) (Formerly numbered Electrical Engineering 285B.) Lecture, four hours; outside study, eight hours. Requi- sites: courses M185, and 285A or Physics 222A. In- teraction of intense electromagnetic waves with plasmas. Klystron, magnetron, and other bounded plasmas, nonlinear wave coupling and damping, parametric instabilities, anomalous resistivity, shock waves, echoes, laser heating. Emphasis on experi- mental considerations and techniques. Letter grading.


M293. Intellectual Property for Technology Entre- preneurs and Managers. (2) (Formerly numbered Electrical Engineering M293.) Seminar, two hours; outside study, four hours. Introduction to intellectual property (IP) in context of technology products and markets. Topics include best practices to put in place before product development starts, how to develop high-value patent portfo- lios, patent licensing, offensive and defensive IP litiga- tion considerations, trade secrets, opportunities and pitfalls for open source software, managing copyright in increasingly complex ecosystem, and adopting IP strategies to globalized marketplaces. Includes case studies inspired by com- plex IP questions facing technology companies today. S/U or letter grading.

295. Academic Technical Writing for Electrical En- gineers. (3) (Formerly numbered Electrical Engi- neering 295.) Seminar, three hours. Designed for elec- trical engineering PhD students who have completed preliminary examinations. Students read models of good writing and learn to make rhetorical observa- tions and writing decisions, improve their academic and technical writing skills and present oral conference and journal papers, and practice writing for and speaking to various audiences, including po- tential students, engineers outside their specific fields, and nonengineers (colleagues outside field, policymakers, etc.). Students write in variety of genres, all related to their professional development as electrical engineers. Emphasis on writing as vital way to communicate precise technical and profes- sional information in distinct contexts, directly re- sulting in specific outcomes. S/U grading.

Seminar: Research Topics in Electrical Engi- neering. (Formerly numbered Electrical Engi- neering 296.) Seminar, two hours; outside study, four hours. Advanced study and analysis of current topics in electrical engineering. Discussion of current re- search and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

297. Seminar Series: Electrical Engineering. (1) (Formerly numbered Electrical Engineering 297.) Seminar, one to four hours; outside study, four hours. Lim- ited to graduate electrical engineering students. Weekly seminars and discussion by invited speakers on research topics of heightened interest. S/U grading.

298. Seminar: Engineering. (2 to 4) (Formerly num- bered Electrical Engineering 298.) Seminar, to be ar- ranged. Limited to graduate electrical engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be ar- ranged. May be repeated with topic change. S/U or letter grading.

299. MS Project Seminar. (4) (Formerly numbered Electrical Engineering 299.) Seminar, to be arranged. Required of all MS students. Preparation: supervision in Office of Graduate Student Affairs. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) (For- merly numbered Electrical Engineering 375.) Seminar, to be arranged. Preparation and personal employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guide- nance and supervision of regular faculty member re- sponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Preparation Seminar: Teaching and Writing Pedagogy for Electrical Engineers. (2) (Formerly numbered Electrical Engineering M495.) (Same as English Composition M495K.) Seminar, two hours. Limited to graduate electrical engineering stu-
EMERGENCY MEDICINE

David Geffen School of Medicine
924 Westwood Boulevard, Suite 300
Box 951777
Los Angeles, CA 90095-1777

Emergency Medicine
310-794-0578

Gregory W. Hendey, MD, Chair

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.

ENGINEERING

ENGINEERING SCHOOLWIDE PROGRAMS

Henry Samueli School of Engineering and Applied Science
6426 Boelter Hall
Box 951601
Los Angeles, CA 90095-1601

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 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—Electrical, 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

10A. Introduction to Complex Systems Science.
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 social and biological collectives is their nature as complex adaptive systems, where individual 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. 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.

20. First-Year Engineering Transition Bridge. (2) Seminar, thirty-two hours. Design 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, studying at UCLA versus high school, policies and procedures, and campus resources. Advanced preparation and early exposure to Fall Quarter mathematics, chemistry, and computer science curricula. Collaborative learning techniques and community-building activities are integral processes to both day and evening programs. Intensive classroom instruction and collaborative learning workshops. Offered in summer only. P/NP grading.

21. Computing Immersion Summer Experience. (2) Seminar, thirty-two 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, studying 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 computer 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, at times to be arranged. 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, studying at UCLA versus high school, policies and procedures, and campus resources. Intensive introduction of advanced topics covered in upper-division engineering courses. Offered in summer only. P/NP grading.

87. Introduction to Engineering Disciplines. (4) Lecture, four hours; discussion, four hours; outside study, four hours. Introduces students to professional opportunity for freshman students by exploring difference between engineering disciplines and functions engineers perform. Development of skills and techniques for academic excellence through team process. Investigation of national need underlying current effort to increase participation of historically underrepresented groups in U.S. technological workforce. Letter grading.

95. Internship Studies in Engineering. (2 to 4) Tutorial, two to four hours. Limited to freshmen/sophomores. Internship studies course supervised by associate dean or designated faculty member. Further supervision to be provided by organization for which students are doing internship. Students may be required to meet on regular basis with instructor and provide periodic reports of their experience. May not be applied toward major. May be repeated for credit. Individual contract with associate dean required. P/NP grading.

96A. Introduction to Engineering Design. (2) Formerly numbered 96B.) Lecture, one hour; laboratory, one hour; outside study, four hours. Introduction to engineering design while building teamwork and communication skills and examination of engineering majors offered at UCLA and of engineering careers. Completion of hands-on design projects, preparation of short report describing projects, and presentation of results. Specific project details and relevant majors explored vary with instructor. Letter grading.

96B. Introduction to Engineering Design: Digital Imaging. (2) Lecture, one hour; laboratory, one hour; outside study, four hours. Recommended for undergraduate Aerospace Engineering, Bioengineering, Computer Science, Electrical Engineering, and Mechanical Engineering majors. Introduction to engi-
neering design while building teamwork and communica-
tion skills and examination of engineering majors
offered at UCLA and of engineering careers. Hands-on
experience with state-of-art solid-state imaging
devices. How to focus, expose, record, and manipu-
late telecommunication of photonic nanotechnology
from early chemical experiments to widespread
use of cell phone camera. Completion of
design projects, preparation of short reports, and
presentation of results. Letter grading.

96C. Introduction to Engineering Design: Internet of Things. (2) Lecture, one hour; laboratory, one hour;
outside study, eight hours. Lecture and laboratory
combined. Introduction to multidisciplinary engi-
neering and development of undergraduate Aerospace Engineering, Bioengineering, Computer Science, Electrical Engineering, and Me-
chanical Engineering majors. Introduction to engi-
neering design while building teamwork and commu-
nication skills and examination of engineering majors
offered at UCLA and of engineering careers. Hands-on
experience with state-of-art Internet of things (IoT)
technology to offer students opportunity to rapidly
develop innovative and inspiring systems that provide
ideal introduction to computing systems and IoT ap-
plications specific to their major field. IoT technology has
become one of most important advances in technol-
ogy history with applications ranging from wear-
able devices for healthcare to residential monitoring
systems, natural resource protection and manage-
ment, intelligent transportation systems, robotics systems,
and energy conservation. Comple-
tion of hands-on engineering design projects, prepa-
ration of short report describing projects, and presen-
tation of results. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (sup-
ervised research or other scholarly work), three
hours per week per unit. Entry-level research for
lower-division students under guidance of faculty
mentors. Students complete a formal academic stan-
dard and enrolled in minimum of 12 units (excluding
this course). Individual contract required; consult Under-
graduate Research Center. May be repeated. P/NP
grading.

Upper-Division Courses

M101. Principles of Nanoscience and Nanotechnol-
ogy. (4) (Same as Materials Science M105.) Lecture,
four hours, discussion, one hour; outside study, seven
hours. Enforced requisites: Chemistry 20A, 20B, Physics
1C. Introduction to underlying science
phenomena that emerge in very small systems (typi-

cally, four to ten nanometers) and new nanomaterials
which are unique materials with properties
never observed in larger systems. Topics include
trans-


teraction, and toxicity of nanoscale materials in


ecosystems and characteristics of effective leaders. How en-


termine career success. Importance of group dy-
namics in engineering practice. Teamwork and
workforce management. Letter grading.

110. Introduction to Technology Management and
Economics for Engineers. (4) Lecture, four hours;
discussion, one hour; outside study, seven hours.
Fundamental principles of micro-level (individual, firm,
and industry), and macro-level (international) economic
as they relate to technology manage-
ment. How individuals, firms, and governments
impact successfull commercialization of high-
technology and service sector innovation. Explore-
tions and applications. Letter grading.

111. Introduction to Finance and Marketing for En-

gineers. (4) Lecture, four hours; discussion, one hour;
outside study, seven hours. Critical components of fi-
nance 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 innova-
tion. Concepts include present value, future value,
cash flow analysis, capital budgeting, operational
analysis, and accounting disciplines as they impact
management of technology commercialization. Topics
include intellectual property management, team build-
ing, market forecasting, and entrepreneurial fi-
nance. Students work in small teams studying tech-
nology management plans to bring new technologies
from research lab to market. Topics include high tech-
nology concepts, many generated at UCLA, that are
in need of plans for movement from laboratory to
market. Letter grading.

112. Laboratory to Market, Entrepreneurship for
Engineers. (4) Lecture, four hours; dis-
cussion, one hour; outside study, seven hours. Critical
components of entrepreneurship, human re-
sources, and accounting disciplines as they impact
management of technology commercialization. Topics
include intellectual property management, team build-
ing, market forecasting, and entrepreneurial fi-
nance. Students work in small teams studying tech-
nology management plans to bring new technologies
from research lab to market. Topics include high tech-
nology 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.
Manage-
ment as well as engineering trade-offs are nearly
always the site: course M101. Introduction to potential implica-
tions of basic sciences and nanosciences into synthetic
systems, where biological components are reengi-
neered and rewired to perform desirable functions in
both intracellular and cell-free environments. Discus-
sion of basic technologies and systems analysis that
deal with dynamic behavior, noise, and uncertainties.
Design project in which students are challenged to
design non-invasive synthetic systems for non-
trivial task required. Letter grading.

114. Synthetic Biosystems and Nanosystems De-
sign. (4) Lecture, four hours; outside study, eight
hours. Requisites: course M101, Life Sciences 3.
Introduction to the design and engineering of


tegrating biology with nanomaterials to create
cytotoxic bioscience and nanomaterials into synthetic
systems, where biological components are reengi-
neered and rewired to perform desirable functions in
both intracellular and cell-free environments. Discus-
sion of basic technologies and systems analysis that
deal with dynamic behavior, noise, and uncertainties.
Design project in which students are challenged to
design non-invasive synthetic systems for non-
trivial task required. Letter grading.

115. Environmental Nanotechnology: Implica-
tions and Applications. (4) (Same as Civil Engi-
neering M165.) Lecture; four hours; discussion, two
hours; outside study, six hours. Recommended requi-
site: course M101. Introduction to potential implica-
tions of nanotechnology to environmental systems as
well as potential application of nanotechnology to
environmental protection. Technical outcomes include
three multidisciplinary areas: (1) physical, chemical,
and biological properties of nanomaterials, (2) trans-

Graduate Courses

200. Program Management Principles for Engineers and Professionals. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students and professionals new to management and project management. Core course in online MS program. Project course that provides hands-on experience with introduction to entrepreneurship. Letter grading.

201. Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students and professionals new to management and project management. Core course in online MS program. Project course that provides hands-on experience with introduction to entrepreneurship. Letter grading.

202. System Architecture. (4) Lecture, four hours; outside study, eight hours. Requisite course 201. Designed for graduate students with BS degrees in engineering or science and one to two years work experience in selected domain. Art and science of architecting and designing software systems using analytical tools provided to enable students to better understand the nature, roles, and relationships of their project, organization, and context. May be repeated for credit. Letter grading.

203. Data and Business Analytics. (4) Lecture, four hours; outside study, eight hours. Introduction to concepts reflecting material generally covered in certain MBA core and elective courses. Integration of both theory—introduce essential conceptual building blocks of data science, statistical, and empirical models—and practice—to emphasize how these theories are actually implemented in real world. Cases, comprehensive problems, and recent events presented to provide students with richness in applying material presented as possible. Letter grading.

211. Financial Management. (4) Lecture, four hours; outside study, eight hours. Introduction to concepts reflecting material generally covered in certain MBA core and elective courses. Integration of both theory—introduce essential conceptual building blocks of data science, statistical, and empirical models—and practice—to emphasize how these theories are actually implemented in real world. Cases, comprehensive problems, and recent events presented to provide students with richness in applying material presented as possible. Letter grading.

212. Intellectual Property Law and Strategy. (4) Lecture, four hours; outside study, eight hours. Prior knowledge of legal concepts is 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 partnering in workplace, with principles of intellectual property not only by learning fundamental rules associated with patent, copyright, trademark, and trade secret protection but also by understanding how these rules support. Examples and case studies are 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. Introductory to concepts reflecting material generally covered in certain MBA core and elective courses. Integration of both theory—introduce essential conceptual building blocks of data science, statistical, and empirical models—and practice—to emphasize how these theories are actually implemented in real world. Cases, comprehensive problems, and recent events presented to provide students with richness in applying material presented as possible. Letter grading.

215. Entrepreneurship for Engineers. (4) Lecture, four hours; outside study, eight hours. Introduction to concepts reflecting material generally covered in certain MBA core and elective courses. Integration of both theory—introduce essential conceptual building blocks of data science, statistical, and empirical models—and practice—to emphasize how these theories are actually implemented in real world. Cases, comprehensive problems, and recent events presented to provide students with richness in applying material presented as possible. Letter grading.

216. Engineering for Systems Assurance. (4) Lecture, four hours; outside study, eight hours. Requisite course 204, Computer Science 236. Systems are constructed to perform complex functions and to understand needs of the user, analysis of requirements and derived requirements, creation of various system architecture products, and design and integration of various components 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 of introduction, investigation, and analysis of framework of assurance to accomplish total system assurance. Development of secure, reliable, and dependable systems from complex commercial-realm such as air traffic control, Supervisory Control and Data Acquisition (SCADA), and autonomous vehicles to military realm such as command, control, communication, intelligence, and cyber. Letter grading.

217. Engineering for Systems Assurance. (4) Lecture, four hours; outside study, eight hours. Requisite course 204. Designed for graduate students with one to two years experience. Integrated logistic support (ILS) is major driver of system life-cycle costs. Cost and schedule drivers and a part of the system engineering activities. Overview of engineering disciplines critical to this function—reliability, maintainability, and supportability—and their relationships, taught using probability, reliability, maintainability, and supportability. 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 organization’s defining strategic decisions, those related to key processes affecting organizational unit’s performance. Letter grading.

218. Special Courses in Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

191. Seminar Series in Engineering Research. (1) Seminar, one hour. Seminar series in cutting-edge engineering research at UCLA. Each seminar is given by UCLA graduate research or post-doctoral scholar. Designed to be accessible to undergraduate students in any science, technology, engineering, and mathematics (STEM) field. Offers a unique window into excitement of graduate student research experience. Also offers opportunity for graduate students to learn about what their peers are doing. Letter grading.

192. Fundamentals of Engineering Mentorship. (2) Seminar, two hours; outside study, four hours. Principles and practical techniques for instruction of hands-on engineering design projects in high school outreach programs. Curriculum planning, proposal preparation, and project management with firsthand experience of students window into excitement of graduate student research experience. Also offers opportunity for graduate students to learn about what their peers are doing. Letter grading.

193. Directed Research in Engineering. (2 to 8) Tutorial, two to four hours. Limited to seniors/juniors. In-depth study course supervised by associate dean or designated faculty members. Further supervision to be provided by organization for which students are doing research. Students may be required to meet on regular basis with instructor and provide periodic reports of their experience. May not be applied toward major requirements. May be repeated for credit. Individual contract with associate dean required. P/NP grading.

210. Operations and Supply Chain Management. (4) Lecture, three hours; outside study, six hours. Prior knowledge of legal concepts is 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 partnering in workplace, with principles of intellectual property not only by learning fundamental rules associated with patent, copyright, trademark, and trade secret protection but also by understanding how these rules support. Examples and case studies are to be taken from across content, technology, and pharmaceutical industries. Letter grading.

214. Management Communication. (4) Lecture, four hours. Exploration of knowledge, attributes, skills, and strategies necessary to succeed communication skills. Letter grading.

219. Applied Research in Engineering. (2 to 8) Tutorial, to be arranged. Limited to seniors/juniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with approval of school approval. Individual contract required; enrollment petition available in Office of Academic and Student Affairs. Letter grading.

299. Capstone Project. (4) Activity, 10 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 apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

470A–470D. Environmental Engineering. (3 each) Lecture, three hours; outside study, six hours. Limited to Engineering Executive Program students. Theory and application of quantitative methods in design 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.
When selecting courses to fulfill requirements for the majors, students are expected to choose those that best reflect their own interests and simultaneously contribute toward a coherent program in literary studies. A graduate program leading to the Master of Arts degree is available for students who wish to continue the study of literature at an advanced level. A parallel program continues to the PhD degree. Because the PhD program may require five years or more, it is intended only for qualified students who are seriously committed to advanced literary scholarship and, in some cases, to a career in college or university teaching.

**Undergraduate Study**

Students must have completed the Entry-Level Writing requirement before taking any courses in English (other than English Composition 1 or 2). For more information regarding Entry-Level Writing, see the Undergraduate Study chapter. The English major and American Literature and Culture major are designated capstone majors. Students in both majors have the option of completing a capstone seminar or other culminating work that enables them to use knowledge and skills acquired through previous coursework to engage, under the guidance of a faculty member, in literary research or other creative projects that result in a final paper or other product.

**Extra-Departmental Requirement in Foreign Literature or Foreign Language**

All English majors must have completed either (1) level five or equivalent in any one foreign language or (2) level three or equivalent in one foreign language and two additional courses in foreign language or foreign literature, including foreign literature in translation (see course listings under Foreign Literature in Translation). Transfer students who have satisfied the IGETC program may satisfy the departmental requirement with five foreign literature and foreign language courses. The courses may be taken on a P/NP grading basis.

**English BA**

**Capstone Program**

The Bachelor of Arts degree in English has an optional concentration in creative writing for students who have been admitted to and completed three creative writing workshops in a single genre of either poetry or short story. Students are expected to meet with the undergraduate counselors and undergraduate faculty adviser to plan and follow a course of study that incorporates their interests and goals with the fulfillment of requirements for the degree.

**Learning Outcomes**

The English major has the following learning outcomes:

- Proficiency in a broad knowledge/skill set including research methods, critical thinking, and analytical writing
- Familiarity with basic project material including data from multiple sources
- Familiarity with relevant scholarly and current debates in the field
- Conception and execution of an independent project
- Demonstrated seminar or workshop skills
- Demonstrated oral and written communication skills
- Demonstrated defense-of-scholarship skills

**Preparation for the Major**

**Required:** English Composition 3, English 4W or 4HW or 4WS, 10A, 10B, 10C taken in the stated sequence (each course is a requisite 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, 166B through 168, 176, or indicated sections of 169 or 169R, and (d) literatures in English, 1850 to present—course M101B, M101C, M102A, M102B, M104A through M104D, M105B through M105E, 116B, 130, 131, 164B, 164C, 164D, 167A, 167B, 168, 170A through 174C, 176, 179, or 179R; (2) three breadth courses, one from each of three 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, 159, 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, 156, 161A, 161B, 161C, 163A, 163C, 164A through 164D, 167A, 167B, 171A through 177, or indicated sections of 149, 159, 159R, 169, 169R, 179, or 179R, and (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) one seminar from course 180 through 184, or M191A through M191E. Admission to creative writing workshops (courses 136, 137, M138) is by application only. Each course applied toward requirements for the major must be 4 or 5 units and be taken for a letter grade.

**Creative Writing Concentration**

The creative writing concentration consists of the same requirements as the major, with the exception that one breadth course must be taken from the creative writing area (English 136, 137), and both electives must be creative writing workshops (courses 136, 137). All other requirements remain the same. English M138 cannot satisfy any breadth or workshop requirements in the concentration and may only be applied toward the basic English major. Students may declare creative writing as a concentration only after they have completed three creative writing workshops in a single genre of either poetry or short story. Students may not enroll in more than one workshop (course 136, 137, or M138) per term or in more than two workshops with the same instructor. No student may take for credit more than three poetry or short story workshops. Students planning to select this program should contact the departmental counselor for more details.

**American Literature and Culture BA**

**Capstone Program**

Students are expected to meet with the undergraduate counselors and undergraduate faculty adviser to plan and follow a course of study that incorporates their interests and goals with the fulfillment of requirements for the degree.

**Learning Outcomes**

The American Literature and Culture major has the following learning outcomes:

- Proficiency in a broad knowledge/skill set including research methods, critical thinking, and analytical writing
- Familiarity with basic project material including data from multiple sources
- Familiarity with relevant scholarly and current debates in the field
- Conception and execution of an independent project
- Demonstrated seminar or workshop skills
- Demonstrated oral and written communication skills
- Demonstrated defense-of-scholarship skills

**Preparation for the Major**

**Required:** English Composition 3, English 4W or 4HW or 4WS taken in the stated sequence (English Composition 3 is requisite to any English 4 course), 11, 87. A grade of C or better is required in each course.
Transfer Students

Transfer applicants to the American Literature and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one English composition course, one English critical reading and writing course, 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


Honors Program

Admission

The honors program is open to departmental majors with a 3.5 departmental and a 3.25 overall grade-point average (GPA). Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors. Students should apply by winter quarter of the junior year. For application forms and more information, contact the departmental counselor.

Requirements

All honors students are required to take one theory course from English 120 through 128 (may fulfill one of three required breadth courses) no later than winter quarter of the junior year. Students in the creative writing concentration are required to have completed or been accepted into their third workshop in a single genre prior to or concurrent with enrollment in course 191H. In spring quarter of the junior year, students must take course 191H (may fulfill one of two electives for the major). During fall and winter quarters of the senior year, they take courses 198A and 198B, in which they write a thesis under the direction of a faculty member (198B may fulfill the second of two electives for the major). The thesis determines whether they receive highest honors, honors, or no honors.

English Minor

The English minor is designed for students who wish to enhance their major program with the benefits of intensive study of English language and literatures, including a better understanding and appreciation of literatures in English and improvement in critical thinking, reading, and writing skills.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed English 10A with a grade of C or better, and have satisfied the English Composition 3 requirement and completed English 4W. Students must file a petition to declare the minor by meeting with a student affairs officer in the Undergraduate Counseling Office, 158/160 Humanities Building, 310-825-1389. For more information, see the minor website.

Required Lower-Division Courses (10 units): English 10B and M30 (or M30SL), with grades of C or better.

Required Upper-Division Courses (20 to 23 units): (1) English 118E and either course M118F or one additional 118E course on a different topic or one other English course that has a primary focus on environmental issues to be selected from a list available in the Undergraduate Counseling Office prior to the opening of enrollment each term (students may petition to substitute other courses), (2) one course selected from American Indian Studies C178, Anthropology 133, 166P, Art History 133D, 133E, C145A, Chicano and Chicano Studies M144, M183, Honors Collegium 141, 147, 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, 134, M137, 150, M153, 157, 159, M161, 163, M164, 166, 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 ecclesiical 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. At least 15 upper-division units applied toward the minor must be taken in residence during the regular academic year (excluding summer sessions) at UCLA. Transfer credit is subject to department approval; consult with the undergraduate counselors before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Literature and Environment Minor

The Literature and Environment minor provides students with both a solid foundation for literary interpretation and a superstructure that integrates those skills and perspectives with the questions about the past, present, and future of the biosphere. It is designed for undergraduates who wish to enhance their major program with intensive study of literature in its relationship to the natural environment, while improving their skills in reading, writing, creative and critical thinking, and analysis of complex situations in an ethical frame. The minor examines how different cultural forms (for example, fiction, journalism, poetry, film, design, and other arts) represent environmental issues, including biodiversity, animal studies, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change.

To enter the minor, students must be in good academic standing with an overall grade-point average of 2.0 or better and have completed English 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 Humanities Building, 310-825-1389. For more information, see the minor website.

Required Lower-Division Courses (10 units): English 10B and M30 (or M30SL), with grades of C or better.

Required Upper-Division Courses (20 to 23 units): (1) English 118E and either course M118F or one additional 118E course on a different topic or one other English course that has a primary focus on environmental issues to be selected from a list available in the Undergraduate Counseling Office prior to the opening of enrollment each term (students may petition to substitute other courses), (2) one course selected from American Indian Studies C178, Anthropology 133, 166P, Art History 133D, 133E, C145A, Chicano and Chicano Studies M144, M183, Honors Collegium 141, 147, 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, 134, M137, 150, M153, 157, 159, M161, 163, M164, 166, 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 ecclesiical 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.
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 (CPhI), 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) or equivalent required. 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. Service learning component includes meaningful work with off-campus agency selected by instructor. Satisfies Writing II requirement. Letter grading.

10A. Literatures in English to 1700. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Survey of major 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. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

10C. Literatures in English, 1850 to Present. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW, 10A, 10B. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

11. Introduction to American Cultures. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: English Composition 3, English 4W or 4HW or 4WS. Exploration of question of what is meant by America, and hence what is meant by American Culture and American Studies. Addresses concepts of origins (real or imagined beginnings of cultural formations), identities (narratives of people and places), and media (creative process as manifest in aesthetic forms, artistic movements, and information systems). P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of interdisciplinary importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

20. Introduction to Creative Writing. (4) Lecture, four hours; discussion, one hour (when scheduled). Preparation: submission of creative or expository writing samples to screening committee. Enforced 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 on poetry, fiction, drama, or nonfiction based on wishes of instructor(s) during any given term. Readings from assigned texts and weekly writing assignments required. P/NP or letter grading.

20W. Introduction to Creative Writing. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: satisfaction of Entry-Level Writing requirement, English Composition 3. Not open for credit to students with credit for course 20. Designed to introduce fundamentals of creative writing and writing workshop. Emphasis on poetry, fiction, drama, or creative nonfiction depending on wishes of instructor(s) during any given term. Readings from assigned texts, weekly writing assignments, and critical response to classmates’ work required. Final portfolio required. Satisfies Writing II requirement. Letter grading.

M30. Environmental Literature and Culture. (5) (Same as Environment M30SL.) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. 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 (Service Learning). (5) (Same as Environment M30SL.) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. 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 selected by instructor. Satisfies Writing II requirement. Letter grading.

88A-88Z. Lower Division Seminars: Special Topics in English. (6) Seminar, three hours. Limited to 15 students. Content varies; see departmental counselor for information. P/NP or letter grading.

88A. Medieval Literature; 88B. Renaissance Literature; 88C. 17th-Century Literature; 88D. 18th-Century Literature; 88E. Romantic Literature; 88F. 19th-Century Literature; 88G. 20th-Century British Literature; 88H. Colonial American Literature; 88J. 19th-Century American Literature; 88K. 20th-Century American Literature; 88L. History of English Language; 88M. Folklore and Mythology; 88N. Literature and Society; 88P. Service Learning. Seminar, three hours; fieldwork, three hours. Textual analysis, analytical discussion, and written assignments about works of literature that raise issues relevant to contemporary society. Service learning component includes minimum of 20 hours service with agency involved in issues of public advocacy and social justice.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Shakespeare. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any course in 170 series. Introduction to a wide variety of major works by Shakespeare, 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. Recommended for instructional credential candidates. Study of critical issues (metre, diction, figurative language, symbolism, irony and ambiguity, form and structure) and
aesthetic issues, including evaluative criteria, fol-
lowed by close critical analysis of selection of repre-
sentative poems. P/NP or letter grading.

91B. Introduction to Drama. (5) Lecture, three
hours; discussion, one hour. Enforced requisite: satis-
faction of requirement. Examination of representative plays; readings may range from Greek to modern drama. Emphasis on critical ap-
proaches to dramatic text; study of issues such as plot construction. Enforced requisite: English Com-
position 3. Lecture, four hours; discussion, one hour
(when scheduled). Enforced requisite: English Com-
position 3. Examination of cultural production, specif-
ically literature produced by queer people. Enforced
requisite: English Composition 3 or 3H. Survey of Asian Amer-
ican literary expression from late 1950s through 1970s. Topics include rise of Black Arts Movement of 1960s and emergence of black women’s writing in early 1970s, with focus on authors such as Lorraine Hansberry, Amiri Baraka, Ntozake Shange, Toni Morrison, Ishmael Reed, Audre Lorde, Paul
Marshall, and Ernest Gaines. P/NP or letter grading.

91D. Introduction to Fiction. (5) Lecture, three
hours; discussion, one hour. Enforced requisite: satis-
faction of requirement. Introduction to prose narrat-
vie, its techniques and forms. Analysis of short and
long narratives and of critical issues such as plot, characteriza-
tion, setting, narrative voice, realistic and nonrealistic forms. P/NP or letter grading.

91E. Introduction to Graphic Fiction. (5) Lecture,
three hours; discussion, one hour (when scheduled).
Requisite: satisfaction of Entry-Level Writing require-
ment. Introduction to popularity and important cul-
tural work of comic books and graphic novels. Em-
phasis on how text and image combine to create mean-
ing, including problem of appropriateness of comic
books for serious cultural topics. P/NP or letter
grading.

97H. Honors Research Seminar for Freshmen and
Sophomores. (4) Seminar, three hours, Enforced re-
quii: English Composition 3, English 4W (or 4W) Re-
commended for lower-division students who desire
familiarity with research methods in literary studies. Areas may include use of archives; locating, reading,
and incorporating secondary criticism; critical and
textual studies; history of books. Specific literatures vary with instructor. May not be repeated for credit. P/
NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (su-
ervised 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 Under-
graduate Research Center. May be repeated. P/NP
grading.

Upper-Division Courses

100. Ways of Reading Race. (5) Lecture, four hours;
discussion, one hour (when scheduled). Requisite: English Composition 3. Introduction to interdisci-
plinary study of race and ethnicity, with primary focus on literature and exploration of institutions that
form understanding of race—citizenship, nationalism, class, gender, and labor—interrogation of how we
come to think of ourselves and others as having race, and effects of such racialized thinking. Course is not
about any particular racial or ethnic group, but high-
lights creation of ethnic categories and their effects
on cultural production. P/NP or letter grading.

M101A. Premodern Queer Literatures and Cul-
tures. (5) (Same as Gender Studies M101A and Les-
bian, Gay, Bisexual, Transgender, and Queer Studies M101A.) Lecture, four hours; discussion, one hour
(when scheduled). Enforced requisite: English Com-
position 3. Survey of discrete period of queer litera-
ture 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.

M101B. Queer Literatures and Cultures, 1850 to
1970. (5) (Same as Gender Studies M101B and Les-
bian, Gay, Bisexual, Transgender, and Queer Studies M101B.) Lecture, four hours; discussion, one hour
(when scheduled). Enforced requisite: English Com-
position 3. Survey of discrete period of queer litera-
ture from 1850 to 1970. Works by such authors as Walt Whitman, Radclyffe Hall, Ger-
trude Stein, Virginia Woolf, Langston Hughes, Ten-
nessee 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) (Same as Gender Studies M101C and Lesbian,
Gay, Bisexual, Transgender, and Queer Studies M101C.) Lecture, four hours; discussion, one hour
(when scheduled). Enforced requisite: English Com-
position 3. Examination of cultural production, specif-
cally literature produced by queer people. Enforced
requisite: English Composition 3 or 3H. Survey of Asian Amer-
ican literary expression from late 1950s through 1970s. Topics include rise of Black Arts Movement of 1960s and emergence of black women’s writing in early 1970s, with focus on authors such as Lorraine Hansberry, Amiri Baraka, Ntozake Shange, Toni Morrison, Ishmael Reed, Audre Lorde, Paul
Marshall, and Ernest Gaines. P/NP or letter grading.

M104D. Contemporary African American Litera-
ture. (5) (Same as African American Studies M104D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of African American liter-
ature from 1800s to present covering range of genres, with emphasis on diversity of perspectives and styles that have emerged over past 30 years or so. Authors may include Toni Morrison, August Wilson, Octavia Butler, Anna Deavere Smith, June Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.

M104E. Topics in African American Literature and
Culture. (5) (Same as African American Studies M104E.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Com-
position 3 or 3H. Variable problem or issue in terms of its relationship to queer literatures and cultures. Topics focus on partic-
ular problem or issue in terms of its relationship to queer literatures and cultures. Topics may include
Queer Studies 101, Queer Studies 102, Queer
Studies 103, Queer Studies 104. P/NP or letter
grading.

M105A. Early Chicana/Chicana Literature, 1400 to
1920. (5) (Same as Chicana and Chicano Studies M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Com-
position 3 or 3H. Survey of Chicana/Chicana literature from poetry of Triple Alliance and Aztec Empire through end of Mexican Revolution (1920), including oral
and written forms (poetry, corridos, testimonios, folk-
lore, novels, short stories, and drama) by writers such as Nezahualcoyotl (Hungry Coyote), Cabaza de Villa, Joaquin C. Ruiz de Zavala, and Luis Eusebio
Baldwin may be included. May be repeated for credit
with topic or instructor change. P/NP or letter
grading.

M105B. Chicana/Chicana Literature from Mex-
ican Revolution to el Movimiento, 1920 to 1970s. (5)
(Same as Chicana and Chicano Studies M105B.) Lecture,
four hours; discussion, one hour (when scheduled).
Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature from poetry of Triple Alliance and Aztec Empire through Great Depression and World War II, ending with Chi-
cana/Chicano civil rights movement. Oral and written
narratives by writers including Corrada Espinoza, Jo-
vita González, Cleofas Jaramillo, Angelico Chávez,
Miguel Ángel, Oscar Acosta, and Evangélica Vígil.
P/NP or letter grading.

M105C. Chicana/Chicana Literature since el Mov-
imiento, 1970s to Present. (5) (Same as Chicana and Chicano Studies M105C.) Lecture, four hours; dis-
cussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature from 1970s through Great Depression and World War II, ending with Chi-
cana/Chicano civil rights movement. Oral and written
narratives by writers including Corrada Espinoza, Jo-
vita González, Cleofas Jaramillo, Angelico Chávez,
Miguel Ángel, Oscar Acosta, and Evangélica Vígil.
P/NP or letter grading.

M105D. Chicana/Chicana Literature since el Mov-
imiento, 1970s to Present. (5) (Same as Chicana and Chicano Studies M105D.) Lecture, four hours; dis-
cussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature from 1970s through Great Depression and World War II, ending with Chi-
cana/Chicano civil rights movement. Oral and written
narratives by writers including Corrada Espinoza, Jo-
vita González, Cleofas Jaramillo, Angelico Chávez,
Miguel Ángel, Oscar Acosta, and Evangélica Vígil.
P/NP or letter grading.
M105D. Introduction to Latina/Latino Literature. (5) (Same as Chicana and Chicano Studies M105D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of U.S. Latina/Latino literature and introduction to major critical trends, with emphasis on groups of Caribbean, Mexican, South American, and Central American origin. Representative works read in relation to such topics as relationship between Latina/Latino population and U.S. cultural sphere, struggle for self-determination, experiences of exile and migration, border zones, enclaves and language, and mestizaje and its impact on cultural production. P/NP or letter grading.

M105E. Studies in Chicana/Chicana and/or Latina/Latina/Latin American Literature. (5) (Same as Chicana and Chicano Studies M105E.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Variable topics course to give students broad introduction to issues and themes in Chicana/Chicana and/or Latina/Latina/Latin American literature. Topics include border, immigration, revolution, language, gender, sexuality, diaspora, and others. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105SL. Seminar: Chicana/Chicana and/or Latina/Latina/Latin American Literature. (Same as Chicana and Chicano Studies M105SL.) Lecture, seminar, three or four hours; field placement, three or four hours. Enforced requisite: English Composition 3 or 3H. Study of Chicana/Chicana and/or Latina/Latina/Latin American literature. In-depth study of various topics related to Chicano/Latino communities in Southern California, including Chicana/Chicana visions, oral tradition, migration, exil, autobiography and historical-chicana/Chicana Chicano journalism; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work on agency involved with Chicana and/or Latina/Latina/Latin American 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 histories, decolonization and sovereignty, identity and 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 Women's Writing. (5) (Same as Gender Studies M107A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Focus on women writers that may include historical, regional, national, or thematic emphasis, with possible topics such as authorship, self-writing, sexuality, gender, and race. 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, Queer, and Transgender Students M107B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Focus on women writers that may include historical, regional, national, or thematic emphasis, with possible topics such as authorship, self-writing, sexuality, gender, and race. May be repeated for credit with topic or instructor change. P/NP or letter grading.

108. Intercollegiate Encounters. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literary, cultural, and/or cinematic texts produced by people from different ethnic and religious backgrounds and providing comparative cultural perspectives on living in multietnic societies. May be repeated for credit with topic or instructor change. P/NP or letter grading.

109. Topics in Race, Ethnicity, Gender, and Sexualities. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic. May be repeated for credit with topic or instructor change. P/NP or letter grading.

110A. Writing in English Major: Analytical. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 4W (or 4HW), 10A, 10B, 10C, English Composition 3. Open only to English majors. Writing to students with credit for course 110T. Improvement and refinement of writing about literature. Focus on writing as process, rewriting, and argument; minimum 15 to 20 pages of revised writing. May not be repeated for credit. P/NP or letter grading.

110B. Writing in English Major: Adjunct. (2) Seminar, two hours. Students must be concurrently enrolled in affiliated English lecture course (consult Schedule of Classes for courses designated). Improvement and refinement of writing about literature. Brings together students enrolled in base American Literature and Culture or English courses in workshop settings. Focus on writing-specific wrt. to developing skills, especially art of developing literary critical analysis and argument. May be repeated for credit with topic or instructor or lecture course change. P/NP or letter grading.

110E. Writing in English Major: Advanced Essay. (5) Seminar, three or four hours. Enforced requisites: courses 4W (or 4HW or 4WS), 10A, 10B, 10C, English Composition 3. Limited to American Literature and Culture and English majors. Weekly workshop in writing of advanced literary analyses; study of methods and techniques of developing complex critical arguments. Minimum 15 to 20 pages of revised writing required. May not be repeated for credit. P/NP or letter grading.

110P. Writing in English Major: Pre-Professional Portfolio. (2) Seminar, two hours. Requisites: course 4W, English Composition 3 or equivalent. Limited to American Literature and Culture and English majors. Writing for professions. Students review written materials completed in previous English courses and develop new documents, projects, and writing samples relevant to success in variety of professions including postgraduate study. Culminates in writing portfolio of each student's work. May not be repeated for credit. P/NP or Pass/Fail.

110T. Writing in English Major: Transfer Students. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 4W (or 4HW or 4WS), 10A, 10B, 10C, English Composition 3. Open only to English majors. Not open for credit to students with credit for course 110A. Improvement and refinement of writing about literature and culture. Focus on writing as process, rewriting, and nuanced argument; minimum 15 to 20 pages of writing required. May not be repeated for credit. P/NP or letter grading.

111A. Hebrew Bible in Translation. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Literary study of Hebrew Bible (Old Testament), with emphasis on literary devices and narrative structures in relation to Judaic historical, political, psychological, philosophical, and theological themes. P/NP or letter grading.


111C. Topics in Biblical Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Recommended: course 111A or 111B. Study of topics in Hebrew Bible and/or New Testament with attention to particular literary themes, motifs, genres, and 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. Survey of early textual materials pertaining to Celtic peoples and their stories, with emphasis on techniques of mythological analysis. P/NP or letter grading.

112C. Survey of Medieval Celtic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Knowledge of Irish or Welsh not required. General course dealing with Celtic literature from earliest times to 14th century. P/NP or letter grading.

112D. Celtic Folklore. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Folkloric traditions of modern Ireland, Scotland, and other Celtic countries, with attention to colonial and postcolonial issues and folkloristic method. P/NP or letter grading.

112E. Food and Fantasy in Irish Tradition and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Folkloric traditions of modern Ireland, Scotland, and other Celtic countries, with attention to colonial and postcolonial issues and folkloristic method. 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. Introduction to techniques of linguistic description as applied to pronunciation, grammar, and vocabulary of modern English. P/NP or letter grading.

113B. Introduction to Structure of Present-Day English. (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 poetic revolution, changing conceptions 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. Exploration of lyric poetry in English across centuries. Topics may include poetic revolution, changing conceptions 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.

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 Elizabethan and 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 backgrounds and development of types of children's literature, folklore and oral tradition, criticism, illustration, and bibliography
115D. Detective Fiction. (5) Lecture, four hours; dis- cussion, one hour (when scheduled). Enforced requi- site: English Composition 3 or 3H. Study of British and American detective fiction and literature of detec- tion. P/NP or letter grading.

115E. Science Fiction. (5) Lecture, four hours; dis- cussion, one hour (when scheduled). Enforced requi- site: 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 Civic Engagement M110SL.) Lecture, two hours; discussion, one hour (when scheduled; fieldwork, two hours. Enforced requisite: English Composition 3. Service-learning course that examines history and development of one or more genres, such as binding and book design. Focus generally on parlor 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 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.

116A. Experimental Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced re- quisite: English Composition 3 or 3H. Study of novels and short stories, essay, essay poetry, play, and drama. Modes of inquiry around one or more of these concepts of cultural exchange, development, migration, urban rebellion, and style. Topics may include meaning of urban form as urban space and time, city as urban village or cosmopolitan hub, segregated dystopia or postmodern future, and impact of exile, tourism, and migration in making of cities. May be repeated for credit with topical or instructor change. P/NP or letter grading.

116B. Introduction to Electronic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Overview of literatures involving digital tech- nology, such as hypertext fiction, interactive fiction, animated and interactive poetry, multimedia works, video game narrative, and works employing network protocols and print-based works influenced by digital culture. Basic introduction to new media theory. P/NP or letter grading.

117. Literature of California and American West. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literature in English dealing with exploitation, settler culture, and 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, psychol- ogy. May be repeated for credit with topic or in- structor change. P/NP or letter grading.

118B. Literature and Other Arts. (5) Lecture, four hours; discussion, one hour (when scheduled). En- forced requisite: English Composition 3 or 3H. Investi- gation of literatures dealing with one or more other arts, including music (opera, musical theater, popular music, jazz), painting, photography, other visual arts, sculpture and other plastic arts, performance art, dance, architecture. Topics vary and may include study of 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). En- forced requisite: English Composition 3 or 3H. Study of visual images (photography, film, video) and their relation to literary and/or popular culture. Topics include advertisement, fashion, news, 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). En- forced requisite: English Composition 3. Study of litera- ture from environmental perspectives, including eco- critical and interdisciplinary consideration of issues such as environmental justice, animal studies, food studies, gender studies, urban and postcolonial ecol- ogies, climate change, cultural biophilia and bio- phobia, and relationship of literature to sciences. May be repeated for credit with topical or instructor change. P/NP or letter grading.

118F. Food Cultures and Food Politics. (5) (Same as Food Studies M132 and Society and Genetics M121.) Lecture, four hours; discussion, one hour (when scheduled). Requisite: English Composition 3. Introduction to interdisciplinary field of food studies, with focus on how literature, art, science writing, and visual culture address political dimensions of food and agriculture in specific contexts. P/NP or letter grading.

119. Literary Cities. (5) Lecture, four hours; discus- sion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of place of literary imagination in making of cities, with focus on questions of cultural exchange, development, migra- tion, urban rebellion, and style. Topics may include meaning of urban form as urban space and time, city as urban village or cosmopolitan hub, segregated dystopia or postmodern future, and impact of exile, tourism, and migration in making of cities. May be repeated for credit with topical or instructor change. P/NP or letter grading.

119SL. Literary Cities—Service Learning. (5) Lecture, four hours; discussion, one hour (when sched- uled); fieldwork, two hours. Enforced requisite: En- glish Composition 3. Exploration of place of literary imagination in making of cities, with focus on ques- tions of cultural exchange, development, migration, urban rebellion, and style. Topics may include meaning of urban form as urban space and time, city as urban village or cosmopolitan hub, segregated dystopia or postmodern future, and impact of exile, tourism, and migration in making of cities. Service learning component includes meaningful work with local nonprofit or- ganizations selected in advance by instructor. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

120. History of Aesthetics and Critical Theory. (5) Lecture, four hours; discussion, one hour (when sched- uled). Enforced requisite: courses 10A, 10B. Investigation of texts and ideas in history of aesthetics, critical theory, and interpretation. Topics may include Marx, psychoanalysis, structuralism, poststructuralism, feminism, and postcolonialism. May not be repeated for credit. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

121. Modern and Contemporary Aesthetics and Critical Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Investigation of some dominant trends in 19th- and 20th-century aesthetics, critical theory, and interpretation. Topics may include Marxism, psychoanalysis, structuralism, poststructuralism, feminism, and postcolonialism. May not be repeated for credit. May be repeated for credit with topic or instructor change. P/ NP or letter grading.

122. Keywords in Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requ- isites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Taking its model from Raymond Williams’ classic vocabulary of culture and society, inves- tigation of fundamental theoretical concepts, or keywords, that have emerged from a variety of intellec- tual disciplines to be translated into literary or cultural studies. Consideration of lexical development of such key- words; how they alter and enrich assumptions about textuality, readers, and authorship; and how they en- gage with and inform literary and cultural studies. May be repeated for credit with topical or instructor change. P/NP or letter grading.

123. Theories of History and Historicism. (5) Lecture, four hours; discussion, one hour (when sched- uled). Enforced requisites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Exploration of the- ories of history and historicism that offer productive approaches to literary texts. Investigation of how the- orists negotiate between abstract concepts of history and situated historical narratives, how histories are constructed, trope, and given authority, how histo- ries of past and present in relationship to each other to stabilize tradition or induce change, and complex ways that literary texts operate within and on their historical contexts. May be repeated for credit with topical or instructor change. P/NP or letter grading.

124. Theories of Religion. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requi- sites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Examination of relationship between literary and religious practices and traditions. Topics may include legacies of monotheisms, theories of sacrifice, sacredness, culture, and mystic theories, as well as history of allegory and theological ap- proaches to reading. Selected topics may address liter- ary applications of religious categories as treated in cultural anthropology, philosophy, and critical theory. May be repeated for credit with topical or instructor change. P/NP or letter grading.

125. Violence in Cultural Theory and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Recommended: courses 120, 121. Examination of literary, philosophical, religious, and/or psychol- ogy texts that theorize causes, effects, political justifications, cultural subversions, and uses and critiques of violence. P/NP or letter grading.

M126. Feminist and Queer Theory. (5) (Same as Gender Studies M126 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M126.) Lecture, four hours; discussion, one hour (when scheduled). En- forced requisite: English Composition 3. Recommended: one course from 120, 121, Gender Studies 102, 103, or investigation of key concepts and debates in study of gender and sexuality, with focus on their interrelated significance for making of culture. Readings to be interdisciplinary, with possi- ble emphasis on impact of changing ideas of 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 requisites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Examination of concepts and modes of performance, culture, and/ or media. Broadly construing performance in terms of modes of inquiry around one or more of these concepts, as well as their intersection, in various intellec- tual traditions, including fields of cultural studies, per- formance studies, literary analysis, and film theory. May be repeated for credit with topic or instructor change. P/NP or letter grading.

128. Postcolonial and Transnational Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: courses 130, 131. Exploration of methodological, aesthetic, and theoretical implications of postcolonial and transnational approaches to study of literature and culture. Topics may include theories of subaltern, orientalist, feminist, and/or indig- enous representation and histories and may ad- dress representational issues of national sovereignty in wake of globalization and neocolonialism. May be repeated for credit with topical or instructor change. 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 requi- sites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Consult Schedule of Classes for offering status and topics that may be studied. Same as course 128. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic. May be repeated for credit with topical or in- structor change. P/NP or letter grading.
130. Introduction to Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Introduction to major themes and issues in postcolonial literature, with focus on contemporary literature and writings produced after decolonization, often engaging history of British or other empires with emphasis on Anglophone writers from Africa, Caribbean, South Asia, and indigenous Pacific. May not be repeated for credit.

131. Studies in Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Strongly recommended course 130. Survey of colonial and decolonization have shaped literary and cultural expression, with specific emphasis on regional or thematic concerns. Topics may include literatures of Africa and African diaspora, environment and empire, Caribbean contact zones, or literatures of indigenous Pacific. May be repeated for credit with topic or instructor change. P/NP or letter grading.

132. Culture and Imperialism. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Exploration of relationship between culture and imperialism through lens of literary texts to raise questions about what imperialism means about relationships between power and knowledge. Discussion of shifting patterns and paradigms of imperial rule, including way both metropolitan and peripheral or colonial spaces were transformed. Enforced requisites: courses 10A, 10B, 10C. May adopt thematic approach, such as Orientalism. Topics may include construction of gender, race, otherness, nature, religion, and nation. 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 requisites: courses 10A, 10B, 10C. Examination of cultural, political, and ideological issues that followed from transatlantic movement of people, ideas, commodities, and cultural artifacts. In addition to literatures of U.S. and U.S. culture may include texts from Africa, Caribbean, Mexico, South America, Spain, and other parts of Europe. May be repeated for credit with topic or instructor change. P/NP or letter grading.

134. Nationalism and Transnationalism. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Examination of critical frameworks of nation and migration, transnationalism and globalization, and tradition and modernity analysis of literary texts, particularly relationship between literature and nation. Course may include national literatures in relationship to regional identities as well as discussions of national expansion, diaspora, resettlement, and exile and foundational narratives of nation in relationship to representations of mobility. Genres may include epic, romance, travel narrative, novel, and autobiography. May be repeated for credit with topic or instructor change. P/NP or letter grading.

135. Literature of Americas. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Survey of literatures of Americas, with emphasis on complex ways in which letters of North America, Central America, South America and Caribbean forge distinctly American perspective on global affairs. Spans literature from age of encounter to 19th-century U.S. American revo- lution and Latin American independence movements and beyond, including topics such as colonialism, ethnic- ialism, slavery, transnational dynamics, and cross-cultural transformations among indigenous, Euro- pean, and African civilizations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

136. Creative Writing: Poetry. (5) Seminar, three or four hours. Enforced requisites: English Composition 3 or 133. Weekly workshops 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 or four hours. Enforced requisites: English Composition 3 or 133, English 4W or 4HW. Three average-length stories to be completed each term. Some stories may, with instructor's consent, be substantial revisions of other stories presented. Classroom discussion based on 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.

138. Topics in Creative Writing. (Formerly numbered 138.) (Same as English Composition 138.) Seminar, three hours. Requisite: English Composition 3 or 3D or 3SL. Introductory workshop in genre(s) of instructor choice, that may include mixed genres, playwriting, screenwriting, literary nonfiction, or others. Enrollment in more than one section per term not permitted. May be repeated for max- imum of 10 units. No unit may be used to satisfy work- shop requirements for English creative writing concentra- tion. P/NP or letter grading.

139. Individual Authors. (5) Lecture, four hours; dis- cussion, one hour (when scheduled). Enforced requi- site: English Composition 3. Specialized study of work of 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. Introductory study of Chaucer's language, versification, and historical and literary background, including analysis and discussion of his long major poem, Canterbury Tales. 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.

141. Early Medieval Literature. (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. Texts and topics include Beowulf, Vikings, poems on women, Bede, and King Alfred. P/NP or letter grading.

141R. Early Medieval Literature: Research Compo- nent. (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 his- torical explication of major writers of later medieval Britain (e.g., Gawain-poet, Langland, Gower, Margery Kempe, Malory, miracle and morality plays, prose, and lyric). P/NP or letter grading.

142R. Later Medieval Literature: Research Compo- nent. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Historical explication of major writers of later medieval Britain (e.g., Gawain-poet, Langland, Gower, Margery Kempe, Malory, miracle and morality plays, prose, and lyric). Substantial re- search 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; dis- cussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. English drama from its Latin and Anglo-Norman roots to opening of first public play- house. 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. Investigation of medieval court culture, exploring con- cepts of nobility, governance, love, loyalty, and power in range of genres: romance, lyric, debate, and 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.

145. Medieval Literatures of Devotion and Dissent. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of devotion and spirituality in Middle Ages and their complex relationship with traditions of dissent in medieval English culture, encompassing hagiography, vision, con- versation, intertextual debate, heresy trials, and Lollard manifestos and translations. Texts may include Dream of Rood, South English Legendary, Ancrene Wisse, Pier Plowman, Lollard writings, marco- plays, Wakefield cycle, Shoemakers of Julian of Nor- wegian, and Book of the True Kemp. 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 story cycles and story collections as narrative forms. Medieval story cycles encroachment in complex literatures and medieval culture, periods, genres, and languages, while story collections offer stage art of storytelling within narrative 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 Malabogini, manuscript collections such as Aulniceh unmanuscript or letter book, famous romances such as De- camerion, Canterbury Tales, 1001 Nights, and Gower's Confessio Amantis, or collections of exempla, lengu- ends, and dicta. 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 tra- dition. Medieval histories survive in every language of medieval Britain, including Latin, Old English, Welsh, Irish, Anglo-Norman French, and Middle English. Mul- tilingual ubiquity of history writing points to pressures on traditions of history production. Texts 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). Interdisciplinary survey of particular medieval societies, with special emphasis on complex interactions between different ethnic and cultural traditions of medieval world. Ex- amination of processes of interchange and transmission: classical or patristic traditions into me- dieval culture, crusade, travel literature, and literature of contact zones, including interactions between Celts, Anglo-Saxons, and northern and southern Pagans, Jews, Christians, and Muslims. May be repeated for credit with topic or instructor change. P/NP or letter grading.

149. Medievalisms. (5) Lecture, four hours; dis- cussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploitation of postmedieval production of Middle Ages as period for scholarly study, as the premodern to modern and contempo- rary, and commodity continually reinvented by postmedieval writers, artists, and popular media. Topics may include 19th-century production of medi- eval studies and its links to nationalism, notable medi- evalists and their work, and uses of Middle Ages in popular culture from Umberto Eco to Tolkien, Robin
Hood, Arthur, and Merlin. May be repeated for credit with topic or instructor change. P/NP or letter grading.

150A. Shakespeare: Poems and Early Plays. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive 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. Intensive study of representative problem plays, major tragedies, Roman plays, and romances. P/NP or letter grading.

150C. Topics in Shakespeare. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Introduction to or advancement of student knowledge of Shakespeare’s works through broad or specific topics set by instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

151. Milton. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of 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. Topics may include professional and amateur performances in court, cities, churches, and countryside of varied sorts of texts—masques, religious drama, secular drama, chamber music, examination of texts, performers, and performance spaces from 1509 to 1642. May be repeated for credit with topic or instructor change. P/NP or letter grading.

153. Theatrical Renaissance: Early Modern Texts and Performances. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Topics may include professional and amateur performances in court, cities, churches, and countryside of varied sorts of texts—masques, religious drama, secular drama, chamber music, examination of texts, performers, and performance spaces from 1509 to 1642. May be repeated for credit with topic or instructor change. P/NP or letter grading.

154. Renaissance Worlds. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Variable topics, including travel literature, exploration and expansion, transnational and transoceanic texts, science and cosmography, conceptual worlds of myth and philosophy, as expressed in literature and other arts. 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 persons, places, and events of the Renaissance period, with attention to issues such as personal voice, relations of privacy/ community, bodies/souls, selves/others, as impacted by quotients such as gender, sexuality, race, and ethnicity as they are understood in period from 1500 to 1650. May be repeated for credit with topic or instructor change. P/NP or letter grading.

156. Devotion and Devise. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of religious thought and practice associated with Reformation and Counter-Reformation enterprises in early modern period and consideration of how various types of writing—poems, prayer books, sermons, historical chronicles, essays, travel narratives, trial records—reflect and assess religious ferment of era. Coverage of either broad historical range such as from Henry VIII’s break with Rome to Charles II, and one specific topic such as varieties of martyrdom, 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 requisites: courses 10A, 10B. Study of translations of English Renaissance literature and culture in relation to literatures of antiquity and continental Renaissance. Topics may include epic tradition, forerunners of novel, Renaissance humanism, literature of love, monsters and marvels, representing nature. Ovidian transformations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

159. Topical Literature, circa 1500 to 1700. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of literatures from or about this time period and conventions of literary research. Substantial research component included. 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. Topical Literature, circa 1500 to 1700: Research component. Four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of literatures from this time period and conventions of literary research. Substantial research component included. 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.

160A. Literature of Restoration and Earlier 18th Century. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: 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 requisites: 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 requisites: courses 10A, 10B. Study of poetry across genres and throughout period. Topics may include rise of satire, verse forms including Pin- daric ode, mock-epic, and verse-epistle, questions of literary imitation and originality, poetry's relationship to and meaning of political authority. 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 requisites: courses 10A, 10B. Survey of drama in English until 1850. May be repeated for credit with topic or instructor change. P/NP or letter grading.

161C. Novel in English to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Survey of major novelists until 1850. May be repeated for credit with topic or instructor change. P/NP or letter grading.


162B. Later Romantic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of relationships among and between different revolutionary currents—political, economic, and aesthetic—in British Romantic period, developing readings of literary and extra-literary texts emerged in common relationship; development of deeper understanding of nature and romanticism itself. Readings from work by Blake, Wordsworth, Coleridge, Southey, Austen, Byron, Keats, Wollstonecraft, and others. May not be repeated for credit. P/NP or letter grading.


153C. Jane Austen and Her Peers. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Coverage of six novels of Jane Austen, as well as literary works that most influenced her: Mary Wollstonecraft’s Vindication of the 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 requisites: courses 10A, 10B. Developments in English Romantic poetry from late 18th century 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-in-versa. P/NP or letter grading.

164B. 19th-Century Critical Prose. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of tradi- tions in critical thought from 1800 to 1900 in relation to development of cultural and literary criticism, social thought, and political writing. P/NP or letter grading.

164C. 19th-Century Novel. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of development of novel from 1800 to 1900, with focus on evolution of genre in relation to cultural, social, and political contexts in which readings were composed, circulated, and received. May be repeated for credit with topic or instructor change. P/NP or letter grading.

164D. Global 19th Century. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of 19th-century literature as global phenomenon. Ways imaginative works engaged with 19th-century global forma- tions, that may include structures and discourses of empire, international law, domestic and trans- port systems, political boundaries and state sover- eignty, slave trade, transnational economics, travel and exploration, religious communities, military en- gagements, and/of cultural conflicts. May not be re- peated for credit. P/NP or letter grading.

165A. Imperial Culture, 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of relationship between culture and imperialism in 18th and 19th centuries. Discussion of relationship between literary and extra-literary texts and shifting pat- terns (and paradigms of imperial) of metropolitan and peripheral spaces were transformed beyond recog- nition in this period. Particular attention to repre- sentations of otherness both in emergent metropolitan centers and in sites of contact and conquest over- seas, shifts in forms of Orientalism, developing concepts of race and nation, and ways imperial cul- ture gradually infused almost every aspect of British culture and literature by middle of 19th century. May not be repeated for credit. P/NP or letter grading.

165B. Gender, Sexuality, and Body, 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of question of gender and literature of period known for its invention of sex/gender system. Topics may include varying representations of gender and sexuality across period, gender and authorship,
165C. Protestant Dissent and English Literature, 1640 to 1832. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Historical survey of American literatures of discovery and exploration, contact, and settlement, with emphasis on genres that express distinctive colonial identities, myths, and religious visions. P/NP or letter grading.

166B. American Literature, 1776 to 1832. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Histori- cal survey of American literatures from Revolution through Civil War, 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.

166C. American Literature, 1832 to 1865. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Histor- ical survey of American literatures from Jacksonian era to end of Civil War, including emergent tradition of American Romanticism, augmented and challenged by genres of popular protest urging application of democratic ideals to questions of race, gender, and social equality. P/NP or letter grading.

167A. American Poetry to 1900. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of American poetry from Puritan period through end of 19th century. P/NP or letter grading.

167B. American Fiction to 1900. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of Amer- ican fiction 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). Enforced requisites: courses 10A, 10B. Broad survey of representative American writers across several centu- ries, designed to give concise account of broad nar- rative of American literary development, from origins through 19th century. Includes mainly works that have traditionally been identified as American classics and asks both what makes American literature distinctive and what its relations are to other literatures in Eng- lish. P/NP or letter grading.

169. Topics in Literature, circa 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of literatures from or about this 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.

170A. American Literature, 1850 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Historical survey of American literature since end of World War II. P/NP or letter grading.

170B. American Literature, 1940 to 1954. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American poetry from beginning of 20th century to end of World War II. P/NP or letter grading.

171A. Later 19th-Century Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Developments in English poetic genres in relation to signifi- cant movements such as aestheticism, decadence, feminism, and imperialism from middle decades of 19th century to turn of 20th century. P/NP or letter grading.

171B. 20th-Century British Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of major British poets from 1900 to present. P/NP or letter grading.

171C. 20th-Century British Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Survey of major British novelists and short story writers from 1900 to present. P/NP or letter grading.

172A. Drama, 1850 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Survey of drama in English, with its principal cultural influ- ences, from 1850 through World War II. P/NP or letter grading.

172B. Drama, 1945 to Present. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of drama in English, with its principal cultural influ- ences, since World War II. P/NP or letter grading.

172C. American Drama. (5) Lecture, four hours; dis- cussion, one hour (when scheduled). Enforced requi- sites: courses 10A, 10B, 10C. Study of American drama from its infant day. Historical period may vary with instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

173A. American Poetry, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American poetry from beginning of 20th century to end of World War II. P/NP or letter grading.

173B. American Poetry since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American poetry since end of World War II. P/NP or letter grading.

173C. Contemporary American Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American poetry, mostly by living authors, with em- phasis on emergent forms. May be repeated for credit with topic or instructor change. P/NP or letter grading.

174A. American Fiction to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). En- forced requisites: courses 10A, 10B, 10C. Study of American novels and short stories from beginning of 20th century to end of World War II. P/NP or letter grading.

174B. American Fiction since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). En- forced requisites: courses 10A, 10B, 10C. Study of American novels and short stories since end of World War II. P/NP or letter grading.

174C. Contemporary American Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American novels and short stories, mostly by living authors, with emphasis on emergent issues and aesthetics. May be repeated for credit with topic or in- structor change. P/NP or letter grading.

175. American Nonfictional Prose. (5) Lecture, four hours; discussion, one hour (when scheduled). En- forced requisites: courses 10A, 10B, 10C. Study of American nonfictional prose (essays, autobiogra- phies, 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). Enforced requisites: courses 10A, 10B, 10C. Examination of primarily North American literature from hemispheric rather than nation-based perspective. Histori- cal breadth in study of American literature while posing such crucial theoretical issues as emergence of U.S. Empire or relations between North America and global south, including Africa, Latin America, and Caribbean. May be repeated for credit with topic or instructor change. P/NP or letter grading.

177. Interdisciplinary Studies of American Culture. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Interdisciplinary study of American literature in its relationships to other disciplines, including art, ar- chitecture, film, history, music, politics, and various social sciences, with emphasis on application of lit- erary methodology to historical survey of American culture. May be repeated for credit with topic or in- structor change. P/NP or letter grading.

179. Topics in Literature, circa 1850 to Present. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Examination of literatures from or about this 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.

179R. Topics in Literature, circa 1850 to Present: Research Component. (5) Lecture, four hours; dis- cussion, one hour (when scheduled). Enforced requi- sites: courses 10A, 10B, 10C. Study of literatures from the 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.

180. Topics in Literature and Language. (5) Sem- inar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for au- thor, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or in- structor change. P/NP or letter grading.

180R. Junior Research Seminar. (5) Seminar, three hours. Enforced requisites: courses 10A, 10B, 10C. Strongly recommended for students who plan to enroll in capstone seminars. Study of range of ap- proaches to literary and cultural research, including archival, literary critical, and theoretical to equipping stu- dents with skills working with primary sources, sec- ondary criticism, and online databases. Specific liter- atures vary with instructors. May not be repeated for credit. P/NP or letter grading.

181A. Topics in Genre Studies. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.
181B. Topics in Interdisciplinary Studies. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

181C. Topics in Critical Theory. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

181D. Topics in Imperial, Transnational, and Postcolonial Studies. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182A. Topics in Medieval Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182B. Topics in Renaissance and Early Modern Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182C. Topics in 18th-Century Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182D. Topics in Romantic Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182E Topics in 19th-Century Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182F. Topics in 20th- and 21st-Century Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183A. Topics in Colonial American Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183B. Topics in 19th-Century American Literature. (8) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183C. Topics in 20th- and 21st-Century American Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

184. Capstone Seminar: English. (5) Tutorial, three or four hours. Enforced requisites: English Composition 3 or 3H. Variable special studies course in English. Topics may include drama, poetry, or other works to be studied in depth. May be repeated for credit with topic or instructor change. P/NP or letter grading.

185. Honors Research Colloquia in English. (1) Seminar, one hour. Enforced corequisite: course 199A or 199B. Designed to bring together students undertaking special research projects. Topics will be announced at the beginning of each semester. Students may register for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

186. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Enforced requisites: English Composition 3 or 3H. Enforced grading. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

186C. Topics in 20th- and 21st-Century American Literature. (5) (Same as English American Studies M179A.) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3H. Enforced grading. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190H. Honors Research Colloquia in English. (1) Seminar, one hour. Enforced corequisite: course 199A or 199B. Designed to bring together students undertaking special research projects. Topics will be announced at the beginning of each semester. Students may register for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Topics in African American Literature. (5) (Same as English American Studies M179A.) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3H. Enforced grading. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

191B. Topics in Chicana/Chicano and/or Latina/Latino Literature. (5) (Same as Chicana and Chicano Studies M193.) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3H. Variable special studies course in Chicana/Chicana and/or Latina/Latino literature. Topics include labor and literature; Chicana/Chicano visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicano journalism; literary New Mexico; specific nationalities within Asian American and African American fiction, African American poetry. May be repeated for credit with topic or instructor change. P/NP or letter grading.

191C. Topics in Asian American Literature. (5) (Same as Asian American Studies M181B.) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3H. Variable special studies course in Asian American literature. Topics may include genres (autobiography, novel, poetry, short fiction, or drama); specific nationalities within Asian American community; themes of transnational migration; cross-cultural, interdisciplinary, or intercultural negotiation; and gender and post-colonial, intersectional, and creative projects under guidance of faculty member. May be repeated for credit with topic or instructor change. P/NP or letter grading.

191D. Topics in Queer Literatures and Cultures. (5) (Same as Gender Studies M191D and Lesbian, Bisexual, Transgender, and Queer Studies M191D.) Seminar, three or four hours. Enforced requisites: 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.

191E. Topics in Interdisciplinary Studies. (8) (Same as Gender Studies M191E and Lesbian, Bisexual, Transgender, and Queer Studies M191E.) Seminar, three or four hours. Enforced requisites: 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.

191H. Honors Research Seminars: English. (5) Seminar, three hours. Enforced requisites: one course from 120 through 128. Open only to students who are eligible and apply for honors program in English. Introduction to research techniques and study of various approaches and applications of critical methodology as it relates to interpretation and evaluation of texts. Development and presentation of proposals for honors projects. Consult undergraduate adviser. May be repeated for credit. Letter grading.

M192. Undergraduate Practicum in English: Journals. (2) (Formerly numbered 192.) (Same as English Composition M192 and Environment M192.) Seminar, two hours. Training and supervision of undergraduate student editors of campus journals supervised by faculty member in English, Institute of the Environment and Sustainability, and Writing Programs. May be repeated for credit. 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 readings by writers by 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. Letter grading.

195CE. Community and Corporate Internships in English. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, 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 not be applied toward major requirements. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member 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 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-198B. Honors Research in English. (5-5) Tutorial, to be arranged. Required: course 191H. Limited to juniors/seniors. Development and completion of honors thesis under direct supervision of faculty member. May be repeated for credit. Individual contract required. In Progress (198A) and letter (198B) grading.

199. Directed Research or Senior Project in English. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual literary research and creative projects under guidance of faculty member. Supervised reading or other project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


201A. Criticism and Interpretation from Classical to Renaissance. (4) Lecture, three hours. Examination of major texts in history of critical theory and interpretation from pre-Socratic 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 (Dante, Boccaccio, Sidney). S/U or letter grading.

201B. Aesthetics and Criticism from Enlightenment to Present. (4) Lecture, three hours. Continuation of course 201A, proceeding from neoclassical and Enlightenment critical theory through Victo-
IAN AND DECADENT AESTHETIC 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.

201C. Dicussion and Issues in Modern Critical Theory. (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 Freud, Derrida, Saussure, Heidegger, Shklovsky, Benjamin, Adorno, Levi-Strauss, Lacan, Barthes, Derrida, Deleuze, Fanon, Foucault, Irigaray, Lyotard, Bourdieu, and Bhabha. S/U or letter grading.


204. History of Rhetoric. (4) Lecture, four hours. Reading of basic texts in history of rhetoric and selections from standard commentaries. Survey of classical period and medieval-to-modern period in alternate years. S/U or letter grading.


210A. 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 literatures, European romantic (re)discovery of oral tradition, 20th-century heuristic models of oral composition, and modern-day exploration of oral and popular verbal genres, such as joking and rapping. S/U or letter grading.

210B. Collecting Oral Tradition. (4) (Same as Scandinavian M272.) Seminar, three hours. Description and evaluation of various modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural event. Consideration of approaches ranging from written transcription and text analysis to recording and audio and video presentation. S/U or letter grading.

210C. Studies in Oral Traditional Genres. (4) (Same as Scandinavian M273.) Seminar, three hours. Exploration in depth of variety and history of, and scholarship on, particular oral traditional genre (e.g., ballad, song, epic, proverb, riddle, folklore, legend) or set of closely related oral traditional genres. S/U or letter grading.


211. Old English. (4) Lecture, four hours. Study of Old English grammar, morphology, syntax, pronunciation to enable students to read literature silently and aloud. Reading of as much of more interesting Old English prose and poetry as can be read in one term. S/U or letter grading.

212. Middle English. (4) Lecture, four hours. Requirements: course 211. Detailed study of linguistic aspects of Middle English and of representative examples of better prose and poetry. S/U or letter grading.


215. Paleography of Latin and Vernacular Manuscripts, 900 to 1500. (4) (Same as Classics M218, French M210, and History M218.) Lecture, three hours; discussion, two hours. Introduction to history of Latin and vernacular manuscript book from 900 to 1500 to (1) train students to make informed judg-

...ments 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 their respective presentation of written texts. S/U or letter grading.


230. Workshop: Native Writing. (2 to 4) Lecture, two to four hours. Preparation and submission of writing samples in specified genre (poetry, fiction, or drama). May be repeated but may not satisfy more than one of nine courses required for first qualifying examination nor any of five courses required for second qualifying examination. S/U or letter grading.

240. Studies in History of Language. (4) Lecture, four hours. Individual seminars dealing with any phase of present or development of one particular linguistic characteristic (phonology, syntax, semantics, dialectology) through various periods. May be repeated for credit. S/U or letter grading.

241. Studies in Structure of English Language. (4) Lecture, four hours. Topics in various aspects of structure of modern English, especially syntax and semantics. May be repeated for credit. S/U or letter grading.

242. Language and Literature. (4) Lecture, four hours. Application of linguistics to literary analysis, Individual seminars dealing with one historical period (medieval and Renaissance, neoclassical, or 19th century and modern), specific authors, or contributions of specific groups of linguists to literary analysis. May be repeated for credit. S/U or letter grading.

244. Old and Medieval English Literature. (4) Lecture, four hours. Studies in poetry and prose of Old and medieval English literature; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

245. Chaucer. (4) Lecture, four hours. May be repeated for credit. S/U or letter grading.

246. Renaissance Literature. (4) Lecture, four hours. Studies in poetry and prose of Renaissance English literature, exclusive of Shakespeare; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

247. Shakespeare. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.


250. Restoration and 18th-Century Literature. (4) Lecture, three hours. Studies in English poetry and prose, 1660 to 1800; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

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 literature; 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.


260A. Topics in Asian American Literature. (4) (Same as Asian American Studies M260.) 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, issues, and authors in Chicana/Chicano literature and culture. Examination of political, aesthetic, economic, and cultural context that emerges 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. 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 way imperialism, colonialism, and postcolonialism have 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 M206B.) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms of dance, song, religion, and ritual—al in selected Native American societies, as these traditional and tribal contexts have been translated into contem-
porary 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 and/or topic change. Letter grading.

M270. 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. S/U or letter grading.

M286. Interdisciplinary Studies in 17th and 18th Centuries. (4) (Same as History M296.) Discussion, four hours. Topics vary according to participating faculty. May be repeated for credit. S/U or letter grading.

M299. 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 in English. 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 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. (2 to 4) Tutorial, to be arranged. Limited to students preparing for first qualifying examination or engaging in intensive directed research project. May not be applied toward any course requirement for degree. Consent graduate counselor to enroll or obtain information. S/U or letter grading.

597. Preparation for PhD Examinations. (4 to 12) Tutorial, to be arranged. Limited to second-stage PhD students preparing for second qualifying examination. S/U grading.

598. MA Research and Thesis Preparation. (4 or 5) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any course requirement for degree. S/U grading.

599. PhD Dissertation Research. (4 or 8) Tutorial, to be arranged. Limited to PhD students unable to enroll in seminars in their fields or to students concurrently enrolled in such seminars. (Exception to this rule must be requested by petition.) S/U grading.

**English Composition**

See Writing Programs

**Entrepreneurship Minor**

Interdisciplinary Minor

John E. Anderson Graduate School of Management

149 Humanities Building

Los Angeles, CA 90095-1530

Entrepreneurship 310-825-1389

E-mail contact

Alfred E. Osborne, Jr., PhD, Chair

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. Unzueta, PhD (Management)

Willeke Z. Vendrich, PhD (Near Eastern Languages and Cultures)

**Scope and Objectives**

The Entrepreneurship minor introduces undergraduate students to the field of entrepreneurship. A key element of entrepreneurship is the concept of opportunity recognition where individuals or teams pursue business concepts without regard to immediate access to resources utilizing lean start-up principles. Faculty members from applied fields in the professional schools and industry collaborate with faculty from academic disciplines across the campus to provide a critical framework for questioning and connecting topics related to entrepreneurship.

Through a carefully developed core curriculum and an integrative capstone experience, students in the minor obtain both breadth and depth in their understanding of the concepts, frameworks, and practical implications of entrepreneurship.

**Undergraduate Study**

**Entrepreneurship Minor**

To enter the Entrepreneurship minor, students must (1) have an overall grade-point average of 3.0 or better and (2) submit an application supporting their interest in pursuing the minor. Applications are accepted in fall, winter, and spring quarters. To help plan the course schedule and internship/field experience, students are expected to work closely with the academic adviser. Applications are available on the minor website:

Required Lower-Division Course (4 or 5 units): Communication 1 or any Writing II course.

Required Upper-Division Courses (24 or 25 units): Management 160, 161, 199 (4 units minimum), and three elective courses selected from the following:

- Management 160, 161, 199 (4 units minimum), and three elective courses selected from the following:
- Management 160, 161, 199 (4 units minimum), and three elective courses selected from the following:
- Management 160, 161, 199 (4 units minimum), and three elective courses selected from the following:
- Management 160, 161, 199 (4 units minimum), and three elective courses selected from the following:
- Management 160, 161, 199 (4 units minimum), and three elective courses selected from the following:
Robert K. Wayne, PhD
Yilang Zhu, PhD

Professors Emeriti
Randall D. Crane, PhD
J. Nicholas Entrikin, PhD
John R. Froines, PhD
William M. Hamner, 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
Allison B. Carruth, PhD
Shaly Mahendra, PhD
Aradhna K. Tripathi, PhD

Assistant Professors
Liz Koslov, PhD
Deepak Rajagopal, PhD
Robert Eagle Tripathi, PhD
Alex Wang, JD

Adjunct Professors
Mark A. Gold, DeEnv
James R. Greenwood, PhD
Lawrence W. Harding, PhD
Robert J. Lempert, PhD
Carl A. Maida, PhD
Michael J. McGuire, PhD
Sasan S. Saatchi, PhD

Adjunct Associate Professors
Sasan S. Saatchi, PhD
Michael J. McGuire, PhD

Adjunct Associate Professors
Travis R. Longcore, PhD
Rebecca F. Shippe, PhD

Adjunct Assistant Professors
Wolfgang Buermann, PhD
Jon A. Christensen, PhD
Trevon L. Fuller, PhD
Ryan J. Harrigan, PhD
Emily L. Lindsey, PhD
Miriam E. Marlier, PhD
Kevin Y. Njabo, PhD
Kristen C. Ruegg, PhD
Xavier Swaminathan, DeEnv

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 megacity located in one of the world's most biologically diverse regions, Los Angeles is a magnet for scholars from around the world who are facing similar issues of pollution, access to potable water, demand for energy, fragmentation of habitat, and the need to restore ecological function to sprawling urban settlements in a manner that supports economic growth and that is socially just and equitable.

The IoES offers creative, multidisciplinary academic programs and courses that address the full complexity of current environmental problems and sustainable solutions. The Bachelor of Science degree in Environmental Science is an innovative dual-component degree program for students seeking a challenging and invigorating science curriculum. The first component, the Environmental Science major, provides students with disciplinary breadth in several areas important to environmental science. The second component, a minor or concentration in one of seven environmental science areas, provides students with focused disciplinary depth in an area of their choosing. The minor in Environmental Systems and Society is designed for students who wish to gain a deeper understanding of the relationships between environmental science and associated social and political issues.

The IoES also sponsors Environment M1A, M1B, M1CW and Clusters M1A, M1B, M1CW-titled Food: Lens for Environment and Sustainability. The cluster format is a series of three integrated freshman-team-taught courses over the fall, winter, and spring quarters. The fall and winter quarter courses consist of lectures and discussions. The spring quarter consists of seminars and activities in which students explore specialized food-related environmental and sustainability topics such as sustainable agriculture, food culture and justice, and strategies for feeding the growing human population.

At the graduate level, the IoES offers two degree programs and a graduate certificate. The first program is the Environmental Science and Engineering (DeEnv) 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 distinct areas of research and scholarship.

The national award-winning Leaders in Sustainability graduate certificate program is free to UCLA graduate students pursuing degrees in any discipline. Companies, consumers, and governments across the world increasingly focus on making products, services, operations, and lives more sustainable. The certificate program gives students the tools to make that happen in a collaborative, action-oriented setting. By bringing together students and faculty from diverse academic fields, the program fosters cross-pollination for innovative ideas and solutions. Each graduate student takes a core sustainability class along with electives of their 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.

Undergraduate Study

The Environmental Science major is a designated capstone major. In collaboration with a local agency or nonprofit institution, students work individually and in groups to complete projects that require them to integrate many of the skills, principles, theories, and concepts they have learned throughout the curriculum and apply them to real systems. Students are expected to contribute meaningfully to the analysis and solution of particular environmental science issues involving multiple disciplines and stakeholders with different perspectives. Those completing the major should possess critical thinking skills, problem-solving abilities, and familiarity with essential computational, data collection, and analysis skills, as well as demonstrate effective oral and written communication skills. Graduates should also be able to identify key ethical issues and analyze the consequences of various professional dilemmas, as well as work productively as part of a team.

Environmental Science BS Capstone Major

The Environmental Science BS program represents strong collaboration between the Institute of the Environment and Sustainability and the departments of Atmospheric and Oceanic Sciences; Civil and Environmental Engineering; Earth, Planetary, and Space Sciences; Ecology and Evolutionary Biology; Environmental Health Sciences; and Geography. The program is designed for students who are deeply interested in the study of environmental science. There are two components to the program, and both must be completed to receive the degree. The first component, the Environmental Science major, requires completion of lower-division requirements grounded in basic natural sciences, a five-course upper-division environmental science requirement reflecting the disciplinary breadth of environmental science, three social sciences/humanities courses, par-
Environment and Sustainability, Institute of the

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participation in a sustainability-focused speaker series, and completion of an environmental science practicum. The second component is a minor or concentration in one of seven environmental science areas, each associated with a particular department. With assistance from IoES staff, students must formally apply to and be accepted by the associated department to receive the minor.

Learning Outcomes
The Environmental Science major has the following learning outcomes:

- Ability to apply theories or concepts from coursework to analysis of issues in the field
- Ability to make meaningful contribution to analysis and solution of particular issues involving multiple disciplines and stakeholders with different perspectives
- Critical thinking skills, problem-solving abilities, and familiarity with computational and data collection and analysis procedures essential to the field
- Ability to identify ethical issues raised by a particular issue
- Ability to analyze the consequences of various professional dilemmas
- Ability to work productively with others as part of a team
- Effective oral and written communication skills

Preparation for the Major
Required: Chemistry 14A, 14B, and 14BL (or 20A, 20B, and 20L), Environment 10, Geography 7, Life Sciences 7A, 7B, Mathematics 3A and 3B (or 31A and 31B, or Life Sciences 30A and 30B), Physics 5A and 5C (or 1A and 1B), Statistics 12 or 13 (or Life Sciences 40).

For the atmospheric and oceanic sciences minor, Chemistry and Biochemistry 14C (or 30A) or Mathematics 3C (or 32A) or Physics 1C (or 5B) is also required.

For the conservation biology minor, Chemistry and Biochemistry 14C (or 30A) or Life Sciences 7C and 23L is also required.

For the Earth and environmental science minor, Chemistry and Biochemistry 14C (or 30A) or Mathematics 3C (or 32A) or Physics 1C (or 5B) is 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 1G) 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 1G), 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 175 and found additional courses from the following physical and life science areas. No more than two courses may be from any one department. Atmospheric and Oceanic Sciences 101, 102, 103, 104, M105, 107, 112, 130, 141, Chemical Engineering C118, Civil Engineering 153, 154, M166, Earth, Planetary, and Space Sciences 101, C113, 119, 139, 150, 153, Ecology and Evolutionary Biology 100, 109, 116, 151A, 154, Environment 121, 157, Environmental Health Sciences 100, C125, C152D, C164, Geography 100, 102, 104, 105, M106, 107, 111, 113, M127, M131.

Social Sciences and Humanities Requirements

Practicum/Sustainability Talks Requirements
Required: Environment 180A, 180B, 180C, and two terms of 185A.

Minor and Concentration Requirements
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Successful completion of a minor is indicated on the transcript and diploma.

For the atmospheric and oceanic sciences minor, seven 4-unit courses, including M153 (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, 114A, 114B, 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, 131, 135 (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, C135, C185A, C185B, and three courses from Chemistry and Biochemistry 153A, 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, M155, 157, 159, 160, M161, 162, 163, M164, 166, M167, Geography M128, 135, M137, 150, M153, 156, Philosophy C125, Public Policy C115.

For the geography/environmental studies minor, three courses from Geography M106, M107, M109, 110, 113, M115, 116, 122, 123,
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Institute of the Environment and Sustainability offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Environment and Sustainability, and the Doctor of Environmental Science and Engineering (DEng) degree.

**Environment Lower-Division Courses**

M1A-M1B-M1CW. Food: Lens for Environment and Sustainability. (5–6–6) (Same as Clusters M1A-M1B-M1CW) Course M1A in environmental learning component M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. Lecture grading. M1A-M1B. Lecture; three hours; discussion, two hours. Food as lens for local and global environment 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.) Lecture; three hours; laboratory, one hour. Limited to undergraduate students. Introduction to environmental science as discipline and as way of thinking. Discussion of critical environmental issues at local and global scales. Fundamentals of physical, chemical, and biological processes important to environmental science. Laboratory exercises to augment lectures. Letter grading.

12. **Sustainability and Environment.** (4) Lecture; three hours; discussion; one hour. Introduction to sustainability with emphasis on environmental component, including Earth’s physical, chemical, and biological processes as related to resource demands and management. Examination of application of scientific 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 creating sustainable human society that is environmentally sound, economically viable, and socially just. Discussion 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 required. Honors content noted on transcript. Letter grading.

99. **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. P/NP 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. P/NP grading.

**Upper-Division Courses**

M109. Human Impact on Biophysical Environment: What Science Has Learned. (4) (Same as Geography M109.) 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 (food, biodiversity, water, and landforms). P/NP or letter grading.

M111. Earth and Its Environment. (4) (Same as Atmospheric and Oceanic Sciences M110.) Lecture, three hours. Overview of Earth as system of distinct, yet intimately related, physical and biological elements. Origins and characteristics of atmosphere, oceans, and land masses. Survey of history of Earth and of life on Earth, particularly in relation to evolution of physical world. Consideration of possibility of tech-
nological solutions to global environmental problems using knowledge gained during course. Letter grading.

M114. Soil and Water Conservation. (4) [Same as Geography M107.] Lecture, three hours; discussion, one hour. Requisites: Geography 1 or Life Sciences 1 or 3. 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, one hour. Not open to students with credit for Ecology and Evolutionary Biology 116. Examination of interrelation of natural biotic and human systems. Description of distribution of biodiversity and natural processes that maintain it. Critical analysis of various levels of threats and multidimensional challenges required for mitigating threats. Letter grading.

M127. Soils and Environment. (4) [Same as Ecology and Evolutionary Biology M127 and Geography M127L.] Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmental implications: soil development, morphology, and world soils. Emphasis on soil orders, physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; management of soils as related to plant growth and distribution. P/NP or letter grading.

M127L. Soils and Environment: Field. (1) [Same as Ecology and Evolutionary Biology M127L and Geology M127L.] Laboratory, one hour; field excursions. Corequisites: 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.

M130. Environmental Change. (4) [Same as Geography M131.] Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of natural forces producing environmental changes over past two million years. How present landscape reflects 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 M115 and Urban Planning M165.] Lecture, three hours; discussion, one hour. Examination of origin of major environmental ideas, movements or countermovements they spawned, and new and changing nature of modern environmentalism. Introduction to early ideas of environmentalism, modern, and modern times. Shaped environmental thought, and how this was later transformed by 19th-century ideas and rise of American conservation movements. Review of policies 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. Examinations of broad context of global climate change, period of pandemics, deforestation, and environmental justice impacts of war. Letter grading.

M133. Environmental Sociology. (4) [Same as Society and Genetics M133 and Sociology M115.] Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interrelationships and social factors (such as class, race, gender, and religion) and environmental factors (such as pollution, waste disposal, sustainability, and global warming). P/NP or letter grading.

134. Environmental Economics with Data Analysis. (4) [Formerly numbered M134.] Lecture, three hours. Requisite: Statistics 12 or 13. Examination of challenges of balancing environmental protection with wants and needs of people in economy. Focus on how to design effective policies that address re-

M135. California Sustainable Development: Economic Perspective. (4) [Same as Public Policy M149 and Urban Planning M163.] Lecture, three hours. Examination of specific environmental challenges that California faces. Microeconomic perspective used, with special emphasis on incentives of polluters to reduce environmental harms that are subject to regulation, policies of internalization, and state government to address these issues. Focus on measurement and empirical hypothesis testing. P/NP or letter grading.

M137. Historical Geography of American Environment. (4) Lecture, three hours. Designed for juniors/seniors. Study of systematic changes of natural environment in U.S. during historical time, 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 traits. P/NP or letter grading.

M140. Fundamentals of Environmental Policy and Regulation. (4) Lecture, three hours. Introduction to environmental policy and regulation in U.S. Provides basic knowledge and skills needed to work as professional environmental problem solver. Exploration of environmental, economic, and social forces associated with regulation, role of science in informing policy and regulation, evolution of environmental regulation, different types of regulatory instruments, regulatory process, and alternative approaches to decision making. Includes California Environmental Quality Act (CEQA), Proposition 65, California’s long-standing leadership role in air pollution control, and state’s pioneering efforts in regulating greenhouse gas emissions. P/NP or letter grading.

150. Environmental Journalism, Science Communications, and New Media. (4) Lecture, three hours. Introduction to basic principles of environmental journalism, science communications, and new media, including weekly guest lectures by prominent successful practitioners in wide variety of media. Focus on technologies, methods, genres, and theories of communicating environmental challenges, exploring solutions, and engaging public in newspapers, television, radio, movies, online, on mobile devices, and through social media. Discussion of possibilities and limitations of different media and importance of communications for environmental science, policy, public understanding, and individual decision making. Production by students of environmental communications in variety of media. P/NP or letter grading.

M153. Introduction to Sustainable Architecture and Community Planning. (4) [Same as Architecture and Urban Design CM153.] 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. Letter grading.

M155. Energy in Modern Economy. (4) [Same as Physics M155.] Lecture, three hours. Requisites: Mathematics 3A and 3B (or 3A and 3B), Physics 1A and 1B (or 6A and 6B). Statistics 12 or 13. Examination of physics of energy, history of energy development, and role that energy plays in our economy, particularly in transportation. Prospects for decreasing availability of fossil fuels and impact of global warming on energy development. Current and potential future government and social responses to energy issues. P/NP or letter grading.

157. Energy, Environment, and Development. (4) Lecture, three hours. Requisites: Mathematics 3A and 3B (or 3A and 3B), Physics 1A and 1B (or 6A and 6B). Introduction to basic energy concepts and examination of role of various energy sources, energy conversion technologies, and energy policies in modern life. Analysis of implications of current patterns of energy production and consumption for future economic and environmental sustainability. Integration of concepts and methods from physical and life sciences, engineering, environmental science, economics, and public policy. Basic quantitative skills provided to analyze and critique technical, economic, and policy choices to address challenge of balancing economic growth and environmental sustainability. P/NP or letter grading.

159. Environmental Impact Assessment. (4) Lecture, three hours. Requisites: Mathematics 3A and 3B (or 3A and 3B). Public discourse about current patterns of production and consumption of energy, and goods and services more broadly, suggests such patterns are environmentally and economically unsustainable. Introduction to basic concept of life-cycle analysis (LCA), including analytical frameworks and quantita-

160. Topics in Environmental Economics and Policy. (4) Seminar, three hours. Requisite: Statistics 12 or 13. Examination of key economic and policy decisions in the realm of environmental economics and policy, with focus on testing policy-relevant environmental hypotheses using economics research approach. Invited scholars present research aimed at studying policy-relevant hypotheses on various topics such as climate change, pollution, and transportation. P/NP or letter grading.

M161. Global Environment and World Politics. (4) [Same as Political Science M122B.] Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: Political Science 20. Politics and policy of major global environmental issues such as climate change, international law, 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 entrepreneurial 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 knowledge and skills 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 be more environmentally responsive. Emphasis on corporate strategies that deliver value to shareholders while responding to environmental concerns. P/NP or letter grading.

M164. Environmental Politics and Governance. (4) [Same as Urban Planning M160.] Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and implemented within multiple, complex systems of governance. Institutions and politics matter deeply. Overview of how environmental governance takes place in practice and how it might be improved. Letter grading.

166. Leadership in Water Management. (4) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Examination of water quality and water supply issues in communities, including environmental, scientific, technological, management, and policy issues. Invited experts, scholars, and practitioners discuss relevant issues such as pollution, climate change, and water delivery infrastructure. Emphasis on solutions involving integrated water supply and wastewater systems. Leadership development through writing instruction and negotiations and media training. P/NP or letter grading.
M167. 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 environmen
tal justice is a highly complex phenomenon, multidisciplinary and multipopulation approach taken, using alternative ways of understanding, interpr
ting, and taking action. P/NP or letter grading.

170. Environmental Science Colloquium. (1) Sem
tinar, five to ten; field trip. Limited to undergrad
uate students. Study of current topics in environ
tmental science, including participation in weekly col
loquium series and field trips. May be repeated for
credit. P/NP grading.

180A. Practicum in Environmental Science. (4) Lecture, three hours; discussion, two hours. Enforced requisite: Statistics 12r or 13r. 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 presentations 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, five hours; field trip. Enforced requisite: course 180A. Course 180B is requisite to 180C. Limited to junior/senior Environmental Science majors. Investigation of various aspects of one environmental case study representing actual multidisciplinary issue. Particular emphasis on developing skills required for working as professionals in this field. Work may in
volve site investigations, original data collection and analysis, mapping and geographic information sys
tems, 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, five hours; field trip. Enforced 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 develop
ing 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 nonpro
tfit institution. Letter grading.

185A. Sustainability Talks. (1) Lecture, two hours. Analysis of principles of sustainability through series
180A-1888. 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 course, taught as such 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 and designated as adjunct to under
graduate lecture course. Exploration of topics in
greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu
dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De
designed as adjunct to upper-division lecture course. In
dividual study with lecture course instructor to explore
topics in greater depth through supplemental read
ings, papers, or other activities. May be repeated for
maximum of 8 units. Letter grading.

M192. Undergraduate Practicum in English: Jour
nals. (2) [Same as English M192 and English Composi
tion (M192)] Lecture, two hours. Training and super
vised practicum for undergraduate student editors of
campus journals supervised by faculty members in English, Institute of the Environment and Sustain
ability, 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 stu
dents. Discussion of readings selected from current literature of field. May be repeated for credit. P/NP grading.

195. Community or Corporate Internships in Envi
ronmental Science. (2 or 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to junior/senior majors. Internship in supervised set
ning in community agency or business related to envi
ronmental science and/or sustainability. Students meet on regular basis with supervisor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required; consult under
graduate advisor. P/NP grading.

196. 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 re
search project under direct supervision of faculty member. Must be taken for at least two terms and for
total of at least 8 units. May be repeated for credit. In
dividual contract required. Letter grading.

199. Directed Research in Environmental Science. (2 to 4) Tutorial, two hours. Preparation: submission of written proposal outlining study or research to be under
taken. Limited to juniors/seniors. Supervised indi
vidual research. Students work under guidance of faculty mentor. Progress report must be submitted to faculty mentor at end of term. Culuminar 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 interdisci
plinary case studies that approach problems in envi
ronment and sustainability as issues with scientific, social, economic, political, philosophical, ethical, his
torical, cultural, economic, and environmental implications. Case studies provide framework for interpret
ative and quantitative methods of analysis drawn from natural sciences, social sci
ces, and humanities. Emphasis on conceptual frameworks for defining environmental problems and implementa
tion of research results in solving real-world problems. S/U or letter grading.

240. Food, Energy, and Water Systems Manage
ment Seminar. (1) Seminar, one hour. Designed for students in science, technology, philosophy, and
mathematics (STEM) field interested in nexus of food, energy, and water systems (FEWS) management and sustainabil
ity. Discussion of issues of science, technol
ogy, economics, and policy. Case studies of ex

cellence in FEWS, and discussion of issues of

241. Food, Energy, and Water Systems Manage
ment in Urban Systems Field Lab. (4) Fieldwork, four hours. Designed for students in science, tech

ology, engineering, and mathematics (STEM) field in

250. Tools for Sustainability Assessment. (4) Le
cture, three hours. Recommended preparation: intro
ductory course in industrial ecology, ecological eco
nomics, environmental economics, business and
management, or public policy analysis. Public dis
course about implications of current patterns of pro
duction and consumption of energy and various goods/services. Discussion of sustainability issues of un
sustainable. What is meant by sustainability and how is it quantified? Focus on concepts and tools to as
sess sustainability at micro-level of individuals, prod
ucts, or systems using various tools, including life
cycle assessment, input-output analysis, and cost
benefit analysis. Exploration of sustainability at macro-level for one entire economy or nation. Discus
sion of usefulness and limitations of metrics as guide for public and private decision making. S/U or letter grading.

260. Information, Technology, Business, and Soci
ety. (4) Seminar, three hours. Interdisciplinary re
search seminar to bring sound social sciences methods to latest technology developments to design effective information-based solutions to social prob
lems. Topics include: policy, securitization and fram
ing of research questions, developing measurements, de
signing appropriate methods (e.g., surveys, experi
ments, using available data), ethical issues, and

career development. Letter grading.

277. Leaders in Sustainability. (4) Lecture, three hours. Common course for all students participating in Leaders in Sustainability Program, including those from
engineering, law, management, public affairs, public health, natural and social sciences, and others. Creation of environment for academically based dis
cussions on various sustainability-related themes, capitalizing on wide mix of disciplines represented among participating students. Sessions feature UCLA faculty members, external speakers, and leadership skills to help students learn more about how to put their interests in sustainability to use. Letter grading.

290. Seminar in Environment and Sustainability. (2) Seminar, 90 minutes. Seminars sponsored by Insti
tute of the Environment and Sustainability and other units. Planning and execution of presentations on topics of choice. Exploration of emergent communica
tion skills. May be repeated for credit. S/U grading.

297A-297B. Advanced Topics in Environment and Sustainability. (4–2) Seminar (course 297A) and two hours (course 297B). Advanced study and analysis of variable current topics in environment and sustainability. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Se
minar, to be arranged. Preparation: apprentice per
sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid

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Environmental Health Sciences

Scope and Objectives

The Department of Environmental Health Sciences focuses its research and educational activities on the protection of human health from environmental problems. S/U grading.

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.

Environmental Health Sciences

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, covering 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 that students need for core environmental health sciences courses. P/NP S/U, or letter grading.

C125. Atmospheric Transport and Transformations of Airborne Chemicals. (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 and 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. Consecutively scheduled with course C225. P/NP or letter grading.
C132. Environmental Policy for Science and Engineering. (4) Lecture, four hours. Limited to senior under-graduate and graduate students. Examination of theoretical underpinning of several major types of regulatory policy, as well as practical issues involved in implementing and enforcing each. Exploration of selection and impact of regulatory forms from variety of disciplines and viewpoints. Focus on traditional command and control regulation (including self-ex-ecuting standards and permit systems), market-based regulation (such as emissions trading), remediation, and emerging regulatory approaches such as management-based regulation and alterna- tives assessment. Issues of compliance and enforce- ment. Concurrently scheduled with course C235. P/NP or letter grading.

C140. Fundamentals of Toxicology. (4) Lecture, four hours. Preparation: one course each in biology, or- ganic chemistry, and biochemistry. Essential aspects of toxicology, with emphasis on human species. Absorp- sion, 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 of undergraduate chemistry, physics, and calculus. Basic theory and application of aerosol science to environ- mental health, including properties, behavior, sam- pling, and measurement of aerosols and quantitative problem solving. Concurrently scheduled with course C252D. P/NP or letter grading.

C157. Risk Assessment and Standard Setting. (4) Seminar, four hours. Requisites: course C1140, Epide- miology 100. Designed to provide students with op- tional knowledge of critical scientific basis for associations of selected occupational and environmental exposures with disease. Special emphasis on critical evaluations of evidence. Attention specifically to interface of science with regulatory standards. Concurrently sched- uled with course C257. P/NP or letter grading.


M166. Environmental Microbiology. (4) (Same as Civil Engineering M166L) Lecture, four hours; discus- sion, two hours; outside study, six hours. Recommended requisite: Civil Engineering 155. Microbial cell and population growth, microbial physiology, 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 Biotechno- nology Laboratory. (1) (Same as Civil Engineering M166L.) Laboratory, two hours; outside study, two hours. Corequisites: course M166L. General laboratory practice in environmental microbial biotechnology, including environmental samplings, 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.

C185A. Foundations of Environmental Health Sci- ences. (4) 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 to cover scientific principles of field, as well as translation of science to environmental health practice. Topics include phys- ical, chemical, and biological hazards, as well as risk assessment and communication. Acquisition of skills important for public health professionals, such as ap- plication of scientific information to real-world prob- lems and ability to communicate effectively with dif- ferent stakeholders. Concurrently scheduled with course C200A. Letter grading.


C200A. Foundations of Environmental Health Sci- ences. (6) Lecture, six hours; group project, two hours. Enforced requisite: course C185A or C185B. Examination of series of topics that cover scientific principles of field, as well as translation of science to environmental health practice. Topics include phys- ical, chemical, and biological hazards, as well as risk assessment and communication. Acquisition of skills important for public health professionals, such as ap- plication of scientific information to real-world prob- lems and ability to communicate effectively with dif- ferent stakeholders. Concurrently scheduled with course C200B. Letter grading.

C200B. Foundations of Environmental Health Sci- ences for Public Health Professionals. (6) Lecture, six hours. Preparation: one year of undergraduate bi- ology and chemistry. Introduction to field of environ- mental health sciences designed for students pursu- ing 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 phys- ical, chemical, and biological hazards, as well as risk assessment and communication. Acquisition of skills important for public health professionals, such as ap- plication of scientific information to real-world prob- lems and ability to communicate effectively with dif- ferent stakeholders. Concurrently scheduled with course C185B. Letter grading.


C204. Seminar: Health Effects of Environmental Contaminants. (2) Seminar, two hours; discussion, two hours. Designed for second-year Environmental Health Sciences MS and MPH students. Practice-focused semianalysis and discussion of content from prior courses to analyze current environmental health policy issues. Students learn fundamentals of envi- ronmental health law, regulatory frameworks, commu- nication strategies, approaches for working with com- munity-based organizations, and policy analysis methods. Focus on environmental and occupational health and policy aspects of single case study. S/U or letter grading.


C206. Seminar: Ecotoxicology. (2) Seminar, two hours. Discussion of various topics in ecotoxicology. Topics vary from term to term and include aspects of environmental chemistry, toxicology, and ecology. May be repeated for credit. S/U grading.

C207. Seminar: Exposure Assessment. (2) Seminar, two hours. Discussion of various topics in exposure assessment. Topics vary term to term and include aspects of population activity, microenvironments, types of monitoring (outdoor, indoor, personal, biomarkers), and multimedia sources of exposure. S/U grading.

C208. Environmental Health Sciences Doctoral Seminar. (2) Seminar, two hours. Limited to environ- mental health sciences doctoral students. Presenta- tion of current research of environmental health sci- ences doctoral students. May be repeated for credit. S/U grading.

C209. Applied Coastal Ecology. (2) Seminar, two hours. Discussion of various topics in applied coastal ecology. Topics may include wetland ecology, restoration ecology, and ecology and management of coastal watersheds. May be re- peated for credit. S/U grading.

C209A. Introduction to Geographic Information Sys- tems. (4) Lecture, two hours; laboratory, two hours. Introduction to geographic information systems (GIS), including use of GIS software, mapping, geocoding, and data analysis. S/U or letter grading.

C210B. Built Environment and Health. (4) Lecture, three hours discussion, one hour. Limited to public health and urban planning graduate students. Inter- disciplinary course on built environment and health and breaking down silos. U.S. and other developed, as well as developing, countries are facing increas- ingly lethal and costly epidemics of acute and chronic diseases related to land use and built environment decisions. While hazards presented by air and water are well recognized as environmental hazards, and toxicological illnesses, there is increasing recognition of hazards presented by building and community de- signs that fail to recognize human health. Land use is built environment where every age group and social and racial minority. Impacts range from very acute (motor vehicle trauma) to long term (obesity, cancer, heart disease). Decisions have as their basic economic, housing, and other factors. Analysis of each factor and related disease endpoints. S/U or letter grading.
209. Practical Applications in Environmental Health Sciences. (2) Lecture, two hours. Enforced requisites: courses C200A, C200B. Description of many leading environmental and occupational health problems that environmental health practitioners face today, conducted as series of lectures, assignments, hands-on field exercises, and group projects, to help students develop skills necessary to integrate concepts across disciplines in field of environmental health. May satisfy requirements needed to qualify for Registered Environmental Health Specialist (REHS) certification. S/U or letter grading.

M211. Epidemiologic Methods in Violent Injury. (4) (Same as Epidemiology M229.) Lecture, four hours. Preparation: Epidemiology 200A, 200B, and 200C (or 100). Description and critical evaluation of epidemiologic methods in approaches to understanding incidence, distribution, causes, and control of violence and violence-related injury. Letter grading.


213. Seminar: Practical Aspects of Biosafety and Biosecurity. (2) Seminar/discussion, two hours. Preparation: one biology laboratory course recommended. Microbiology 101 or 102. Designed for environmental health sciences graduate students and students in UCLA Biosafety Training Program. Interactive seminar with focus on critical concepts in and practical aspects of biosafety, biosecurity, risk assessment, and management that are needed for individuals wishing to serve as interns in UCLA biosafety protocols. Students develop skills necessary to integrate concepts across disciplines in field of environmental health. Letter grading.

214. Children's Environmental Health: Prenatal and Postnatal. (4) Lecture, four hours. Preparation: one year of introductory biology. Examination of how environmental exposures to chemical, physical, and biological agents during period of maturation (from fertilization to adulthood) cause pathophysiologic perturbations in homeostasis at any stage during life. Letter grading.

215. Fundamentals of Health Impact Assessment. (4) Seminar, four hours. Provides students with sound understanding of health impact assessment (HIA) practice, including underlying principles, and opportunities to develop and apply HIA skills in work with public agencies and community-based organizations. Focus on problem solving around case-study HIAAs and student exercise working on HIA-related projects. S/U or letter grading.

C225. Atmospheric Transport and Transformations of Airborne Chemicals. (4) Lecture, four hours. Preparation: one year of calculus, one course each in physics, and one course each in organic chemistry, and biochemistry. Essential aspects of toxicology, with emphasis on human species. Absorption, distribution, excretion, biotransformation, as well as basic toxicological effects on systems. Concurrently scheduled with course C135. Letter grading.


C252D. Identification and Measurement of Gases and Vapors. (4) Lecture, three hours; discussion, one hour; outside study, two hours. Preparation: one year each of chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C152D. S/U or letter grading.

C252E. Industrial Hygiene Measurements Laboratory. (4) Laboratory, four hours. Preparation: courses C225D, 252D. Limited to industrial hygiene majors. Laboratory methods for sampling, measurement, and analysis of gases, vapors, and aerosols found in occupational environments. Letter grading.

C252F. Industrial and Environmental Hygiene Assessment. (4) Lecture, one hour; discussion, two hours; laboratory, two hours; outside study, four hours. Preparation: courses C200A, C200B, C252D, 252E. Environmental and industrial hygiene sampling strategies and assessment via walk-through surveys, lectures, group discussion, actual field measurements, laboratory calibrations, and analyses and reports, with emphasis on chemical, physical, and ergonomic hazards. Letter grading.

253. Physical Agents in Work Environment. (2 to 4) Lecture, three hours; laboratory, two hours. Preparation: one year of physics. Requisites: course C252D. Physical principles and applications of technology to industrial environments, including general and local exhaust ventilation, air cleaning equipment, and respiratory protection. S/U or letter grading.

255. Control of Airborne Contaminants in Industry. (4) Lecture, two hours; laboratory, two hours. Preparation: one year of physics. Requisite: course C252D. Identification and measurement of gases and aerosols in occupational environments, including personal monitoring, control, and sampling techniques. Letter grading.

256. 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 inorganic chemicals and physical factors. Letter grading.

C257. Risk Assessment and Standard Setting. (4) Seminar, four hours. Requisites: course C240, Epidemiology 200A, 200B, 200C. Description and critical evaluation of risk assessment methods used to support regulatory policy, as well as practical issues involved with non-occupational and environmental health. May satisfy needs of industrial hygienists and environmental health professionals. S/U or letter grading.


259A. Occupational Safety and Ergonomics. (4) Lecture, four hours. Overview of most frequent and severe occupational injuries and illnesses, their distribution, causes, analysis methods, and control approaches, including low back pain, falls, machine exposures, upper extremity musculoskeletal disorders, fire hazards, and selected ergonomics topics. Letter grading.

259B. Workplace Safety. (2) Lecture, two hours. Introduction to broad range of topics in workplace safety through lectures, peer review of assignments, discussion, metrics, control philosophy, and control methods. Specific topics include traditional safety practices, 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.


C264. Fate and Transport of Organic Chemicals in Aquatic Environment. (4) Lecture, four hours. Preparation: bachelor’s degree in science, engineering, geology, or environmental science; biology, chemistry, or public health. Examination of how and where and in what form and concentration organic pollutants are distributed in aquatic environments. Study of mass transport mechanisms.
 moving organic chemicals between phases, biological degradation and accumulation, and chemical reactions. Effect of humic substances on these processes. Concurrently scheduled with course C164. S/U or letter grading.

M270. Work and Health. (4) (Same as Community Health Sciences M278.) Lecture, three hours; practicum, one hour. Recommended preparation: graduate-level methods/statistics course, basic epidemiology. Required of graduate students. Exploration of factors resulting in mental and psychological health in context of newly emerging discipline. Focus on psychosocial models, measurement (including hand and experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. S/U or letter grading.

296A-296N. Research Topics in Environmental Health Sciences. (2 each) Seminar, two hours. Advanced study and analysis of current topics in environmental health sciences. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

296A. Coastal Ecological Processes and Problems. 296B. Teratogenesis; 296C. Toxicology and Environmental Health Policy; 296D. Advances in Aerosol Technology; 296E. Occupational and Environmental Exposure Assessment; 296F. Instrumental and Environmental Hygiene; 296G. Germ Cell Cytogenetic/Genetic Biomarkers; 296H. Aquatic Chemistry; 296L. Water Science and 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 in 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 60-unit minimum required for MPH degree. Letter grading.

401. Environmental Measurements. (4) Lecture, two hours; laboratory, four hours. Requisites: courses C200A, C200B, Chemistry 20A, 30A/L. Instrumental 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 Sciences. (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 in 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 summaries. 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 focusing 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 255. Industrial processes and operations and occupational health hazards that arise from them. Letter grading.

461. Water Quality and Health. (4) Lecture, three hours; discussion, one hour. Requisites: courses C200A, C200B. Understanding of water quality, with coverage of hydrology, water chemistry, and various chemical contaminants that may affect human health. Various treatment methods and health implications. 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; 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. S/U or letter grading.

495. Teacher Preparation in Environmental Health Sciences. (2) Seminar, two hours. Preparation: 15 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.

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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Epidemiology

Scope and Objectives

Epidemiology is the study of the distribution and determinants of disease in human populations. Epidemiologists study variations of disease incidence in relation to factors such as age, sex, race, environmental factors, lifestyle, demographic variables, occupational and social characteristics, place of residence, susceptibility, and other pertinent characteristics. Also of concern are the temporal and special distribution of disease, examination of trends, and intervals between exposure to causative factors and onset of disease. The scope of the field extends from study of the patterns of disease to the causes of disease with the goal of the control or prevention of disease. What distinguishes epidemiology from other clinical sciences is the focus on health problems in populations rather than in individuals, with the focus on public health.

Epidemiology is a young field with constantly expanding boundaries. The range of activities includes identifying determinants of population health, investigation and control of disease outbreaks, study of environmental and industrial hazards, evaluation of preventive or curative programs or treatments, and evaluation of the effectiveness and efficiency of intervention or control strategies. Many tools of epidemiology are shared with other fields such as microbiology, immunology, medicine, statistics, and medical geography.

There is a growing core of epidemiologic methodology that includes the principles of study design and conduct, and statistical methods. Epidemiologic tools have become relevant for many other fields that study groups of people, e.g., genetics and epigenetics, global health, pharmacology, medicine, 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 privately and publicly sponsored.

The objectives of the Department of Epidemiology fall into three broad categories—research, teaching, and community service. Degrees offered include the MS and PhD in Epidemiology and, through the Fielding School of Public Health, the MPH with a specialization in epidemiology (see Public 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. Flat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual interest to faculty.) As members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2 Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required: consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Principles of Epidemiology. (4 Lecture, four hours; discussion, two hours. Preparation: one full biologic sciences course. Not open for credit to students with credit for courses 200A, 200B, or 200C. Introduction to epidemiology, including factors governing health and disease in populations. Letter grading.

CM175. Terrorism, Counterterrorism, and Weapons of Mass Destruction: Practical Approach. (5 Same as Honors College M175.) Lecture, three hours. Terrorism, its origins, and ways of addressing terrorism at local, national, and global levels. Guest speakers from variety of UCLA departments and from Los Angeles. Concurrently scheduled with course C275. P/NP or letter grading.

197. Individual Studies in Epidemiology. (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 I: Basic Concepts and Study Designs. (6) Lecture, six hours; discussion, four hours. Enforced requisite or corequisite: Biostatistics 100A. Introduction to basic concepts, principles, and methods of chronic and infectious disease epidemiology. Letter grading.

200B. Methods II: Prediction and Validity. (6) Lecture, six hours; discussion, four hours. Enforced requisite or corequisite: Biostatistics 100B. Introduction 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; discussion, two hours. Enforced requisite or corequisite: courses 200A, 200B. Introduction to basic concepts, principles, and methods of epidemiologic data analysis. Letter grading.

203. Topics in Theoretical Epidemiology. (2 Lecture, two hours. Selection of topics from current research areas in epidemiologic theory and quantitative methods. Topics selected from biologic models, epidemiologic models, problems in inference, model specification problems, design issues, analysis issues, and confounding. May be repeated for credit with consent of instructor. S/U grading.


211. Statistical Methods for Epidemiology. (4) (Same as Statistics M250.) Lecture, four hours. Preparation: two terms of statistics (such as Biostatistics 100A, 100B). Requisites: courses 200B, 200C. Concepts and methods tailored for analysis of epide-miologic 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 priori model specification, translation 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 M216.) 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 variation bias, and methods of generating efficient and precise estimates of population characteristics. Practical applications of sampling methods via lectures and hands-on laboratory exercises. S/U or letter grading.

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. Design, testing, field use, 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 200A.Ascertainment of infection, transmission, and epidemiological parameters rather than clinical and pathological aspects. Specific diseases discussed in depth to illustrate epidemiologic principles. S/U or letter grading.

M226. Global Health Measures for Biological Emergencies. (4) (Same as Ecology and Evolutionary Biology M226.) Lecture, four hours. Requisite: course 220. Mitigation of bioterrorism and potential public health programs and public health graduate education. Because of seriousness of such threats, it is important that individuals trained in public health understand problems and responses. Letter grading.


M229. Epidemiology of Foodborne Illnesses. (4) (Formerly numbered 229.) (Same as Environmental Health Sciences M229.) Lecture, four hours. Requisites: courses 200A, 200B, 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 in public health programs to achieve epidemiologic control, 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 data and methods that produce qualitative 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 in the context of prison populations in U.S., including factors that contribute to transmission of communicable pathogens such as mental health, homelessness, and community reintegration. Legal and ethical considerations toward incarcerated and potential effects on community health. S/U or letter grading.

240. Cardiovascular Epidemiology. (2) Lecture, two hours. Topics include definition, pathogenesis, descriptive epidemiology, magnitude of risk factors, strategies for prevention, lipoprotein metabolism, and epidemiology of diabetes, hypertension, and chronic lung disease. Letter grading.


244. Research Methods in Cancer Epidemiology. (2) Lecture, two hours. Requisites: courses 200A, 200B, and 200C or (100). 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.

246. Environmental Epidemiology. (2 or 4) Lecture, three hours. Requisites: courses 200A, 200B, and 200C or (100). Epidemiologic methods applied to evaluation of influences of environmental hazards. Topics include air pollution, pesticides, drinking water contaminants, use of GIS. Review of recently completed environmental studies published in peer-reviewed literature. S/U or letter grading.

251. Occupational Epidemiology. (4) Same as Community Health Sciences M251.) Lecture, three hours. Requisites: majors: courses 200A, 200B, 200C; for nonmajors: course 200C (or 100). Epidemiologic methods applied to evaluation of human health consequences of occupational and environmental exposures. Topics include clusters, meta-analysis, risk assessment, and policy development. Illustrated by case studies, with focus on techniques to critically evaluate and interpret current literature. S/U or letter grading.


257. Epidemiologic Issues in Reproductive Epidemiology. (2) Seminar, two hours. Requisite: course 220. Discussion of methodologic issues important to epidemiologic studies of reproductive outcomes, including fertility, low birth weight, prematurity, birth defects, pregnancy loss, and perinatal death. Methods to study exposure and assessment and methodology for potential biases illustrated through review of recent studies published in literature and with particular focus on occupational and environmental exposures and birth cohorts. S/U or letter grading.


265. Epidemiologic Methods in Occupational and Environmental Health. (4) Lecture, three hours. Requisites: courses 200A, 200B, and 200C or (100). Description and critical evaluation of the methodologic issues important to 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, interviewing 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 epidemiology of job-related factors affecting human health, including sexual risk behaviors, substance use, physical activity, and healthcare utilization. S/U or letter grading.

267. Social Epidemiology. (4) Same as Community Health Sciences M267.) Lecture, two hours. Requisite: Community Health Sciences 200. Introduction to fundamental principles of public health ethics, current ethical procedures, guidelines, and requirements, and role of 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.

268. Responsible Conduct of Research in Global Health. (2) Same as Public Health M273.) Lecture, two hours. Requisite: Community Health Sciences 200. Ongoing discussion of worldwide pan- demic of HIV/AIDS, ethical violations of research oversight panels and external review groups on previous research, ethical implications of involved consent, responsibility to study community, mechanisms of study approval, role of funders, and role and responsibilities of review boards. S/U or letter grading.


279. 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.


284. Epidemiology and Policy of Occupational and Environmental Health Issues. (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 grading.

285. 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 grading.

286. 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 grading.
logical research in cancer in recent medical and epidemiological literature. 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 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 placement and program training on campus 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.

403. Computer Management and Analysis of Health Data Using SAS. (4) (Same as Biostatistics M403B.) Lecture, two hours; laboratory, two hours. Requisites: 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. Advanced SAS Techniques 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 nonstandardized data. S/U or 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 (1) 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 findings. Communication issues arising in conduct of research, including informed consent process. S/U or letter grading.

420. Field Trials of Health Interventions in Low-Resource Settings. (4) Lecture, four hours. Requisite: course 100, or 200A and 200B. Introduction to practical concepts and issues in conducting epidemiologic field research in developing countries, including formulation research questions, study site selection, ethical considerations, and logistics of data and specimen collection. S/U or letter grading.

495. Teacher Preparation in Epidemiology. (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.

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. No more than 8 units may be applied toward master’s degree minimum total course requirement; may not be applied toward minimum graduate course requirement. 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 or 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.

598. 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.

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.

ETHNOMUSICOLOGY
Herb Alpert School of Music
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Ethnomusicology
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Visiting Assistant Professor
James Ford III, DMA

Scope and Objectives
Ethnomusicology involves the study of all kinds of music from all over the world, using a variety of disciplinary perspectives. The Department of Ethnomusicology, the largest and first of its kind in a U.S. university, offers courses that cover the music of virtually every region of the world and of many ethnic groups in the U.S., as well as courses on popular music and film music. Most courses combine an interest in music as an art form with questions about how musical art and practice relate to other aspects of culture, society, politics, and economics. Courses are also given on the philosophy and aesthetics of music. In addition to lecture courses, the department offers performance ensemble courses in several world and American music traditions. At the undergraduate level, most of the performance courses are open to nonmajors, and many academic courses target nonmajors; prior knowledge of music is not expected or required. The Department of Ethnomusicology is aligned with the departments of Music and Musicology and aspires to promote productive collaboration between performance and scholarly scholarship, a cross-cultural global understanding of the art of music, and preparatory training for a broad range of careers in music after students graduate.

The undergraduate major in Ethnomusicology emphasizes general world music, performance/composition, public ethnomusicology, and scholarly research. Admission requires an audition/interview. The major provides students with a wide-ranging liberal arts education in music. At its core, this includes (1) comprehensive knowledge of music cultures of the world; (2) understanding of the interrelationship...
of music, society, and culture; (3) grounding in the basics of Western music theory and musicianship; and (4) the experience of playing in one or several musical ensembles from various traditions around the world.

Beyond the core and emphasis requirements, students in the world music concentration may, through elective courses, prepare for a variety of career goals, including the study of ethnomusicology in graduate school, composing and performing music, working in the music industry, serving society in the nonprofit sector, or becoming a K through 12 music teacher.

At the graduate level, the department offers MA and PhD degrees in Ethnomusicology, with a specialization in systematic musicology or music and anthropology. Both degree programs train students for future university teaching careers, as well as careers in library science and archiving, the music industry, public service, and music technology. The department provides fellowships, teaching assistantships, and research assistantships for qualified students.

Undergraduate Study

The Ethnomusicology major is a designated capstone major. The capstone project is individualized to each student and requires a creative process either through music performance/composition, a research project, or an internship with a self-reflective journal detailing the process. Through that process, students are expected to demonstrate a broad knowledge base and competency in performance, writing, and/or composition and ability to apply knowledge and experience to the specific requirements of the capstone; conceive and successfully complete a project that is expressive of their specific interests and acquired expertise; and display, through written documentation or live presentation, the requisite communication and, in some cases, teamwork required by work in this field.

Ethnomusicology BA

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 91A through 91Z), private instruction in music (course 92), and/or world music specializations (courses 68A through 68Z).

The Major

Required: Ethnomusicology 175 or 181, 183-12 units from courses 161A through 161Z, 162, and/or 168A through 168Z; a minimum of eight upper-division ethnomusicology courses (32 to 36 units); and a capstone project in either (1) performance/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 a 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 Musicology, (2–2–2) (Same as Music M6A-M6B and Musicology M6A-M6B-M6C.) Laboratory, four hours. Preparation: placement examination. Course M6A is enforced requirement for M6B, which is enforced requirement for M6C. Students must receive grade of C– or better to proceed to next course in sequence. Introduction to musicology 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-M110B.) (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. Socio-cultural history and survey of African American music covering Africa and its impact on Americas; 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. Socio-cultural 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 members in their areas of expertise. P/NP or letter grading.

20A-20B-20C. Musical Cultures of World. (5–5–5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Enforced requisite: Music 20C with grade of C or better. Traditional and popular musics from many different countries, 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.
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M25. Global Pop. (S) (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/NoP or letter grading.

30. Music and Media. (Lecture; four hours; discussion, one hour. Exploration of ways of music is mediated to people by industry, technologies, and corporations. Survey of trends theorists of media and exploration of case studies, P/NoP or letter grading.

M35. Blues, Society, and American Culture. (F) (Formerly numbered 35.) (Same as Global Jazz Studies M35.) Lecture; four hours; discussion, one hour. Sociology 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/NoP or letter grading.

40. Music and Religion. (Lecture; four hours; discussion, one hour. Survey of nature, role, and power of music in religious rituals around the world. Discussion of different compositional/performance techniques and approaches that distinguish different styles of jazz from one another, as well as key historical figures that shaped development of jazz from its early years through modern jazz. Important historical social issues (segregation, depression, World War II, Civil Rights Movement) that intersect with history of music. P/NoP 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 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 (segregation, depression, World War II, Civil Rights Movement) that intersect with history of music. P/NoP or letter grading.

M50A. Late 19th Century through 1940s; M50B. 1940s to Present.

60. J.S. Bach in His World and Ours. (Lecture; four hours; discussion, one hour. Examination of life and music of J.S. Bach. 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/NoP or letter grading.

68A-68F. World Music Specializations. (2–2) Activity, three hours; outside practice, three hours. Performance of specializations in traditional vocal music, instrumental music, and dance. May be repeated for credit without limitation. P/NoP or letter grading.


68B-68O. World Music Specializations. (1 each) Activity, two hours; outside practice, one hour. Performance of specializations in traditional vocal music, instrumental music, and dance. May be repeated for credit without limitation. P/NoP or letter grading.


673. Music and Religion in Popular Culture. (5) Same as Cultural Anthropology M673.) Lecture; four hours; discussion, one hour. Popular music of religious traditions since the 1970s. Growth of music in Jewish denominations, including Orthodoxy, Reform, and Conservative. Development of contemporary religious music from evangelical to cross-over artists performing in mainstream. Credit for both courses M73 and M137 not allowed. P/NoP 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 repeated for credit without limitation. P/NoP or letter grading.

91A-91Z. World Music Performance Organizations. (4) Seminar, three hours. Discussion of performance of traditional vocal and instrumental music of world cultures. May be repeated for credit without limitation. P/NoP or letter grading.

111. Ellingtonia, (4) (Same as African American Studies M111 and Global Jazz Studies M111.) Lecture, four hours; discussion, one hour. 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/NoP or letter grading.

C112. African American Music in California. (4) (Same as African American Studies M112.) Lecture, four hours. Historical and analytical examination of African American music in California, including history, migration patterns, and urbanism to determine their impact on development of American popular music in California. Concurrently scheduled with course CM212. P/NoP or letter grading.

113. Music of Brazil. (4) (Lecture, three hours. History of ethnic and art music in Brazil, with some focus to antique antecedents. P/NoP 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 view of art as high art, through examination on cross-cultural basis of diverse musical contexts within vast multicultural metropolis of Los Angeles, with focus on various musical networks and specific experience of African American, Asian Indian, Asian, rock culture, Western art music tradition, and commercial music industry. P/NoP or letter grading.

M116. Chican/ano/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/NoP or letter grading.

117. American Popular Music. (4) Lecture, four hours; discussion, one hour. 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/NoP or letter grading.

118. 20th Century Jazz. (4) Lecture, four hours. Examination of historical and stylistic development of rock from 1950s to present, with attention to its socio-cultural and political impact on American society and American popular music. P/NoP or letter grading.

M119. Cultural History of Rap. (5) (Same as African American Studies M117 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, philosophical and political ideologies, gender representation, and influences on cinema and popular culture. P/NoP or letter grading.

M128. Exploration in Rhythmics. (2) (Formerly numbered 128.) (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 jazz, world, and popular music. Concepts explored include meter, pulse, rhythmic cycles, hemolias, and polyrhythms. P/NoP 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 Anthropology 3 or 4. Aesthetics of jazz instant in view of art as an evolving art form as art form in 20th century. Listening to and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical discussion of African American musicians and ethnomusicologists combined with those interested in jazz as cultural tradition. P/NoP or letter grading.

Survey of women vocalists, instrumentalists, composers/arrangers, and producers and their impact on development of jazz. P/NoP or letter grading.
M131. Development of Latin Jazz. (4) Same as Music M131 and Global Jazz Studies M131.) Lecture, four hours; discussion, one hour. Survey of historical and stylistic development of musical style referred to today as Latin Jazz. P/NP or letter grading.

133. European Musics: Politics, Identities, Nationalism. (4) 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 practiced through transnational identities, 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 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 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 Africa through general discussion of select topics such as continent and its peoples, function, musician, instruments, musical structure and related fields, and contemporary music. P/NP or letter grading.

C136B. Music of Africa. (4) Lecture, four hours; outside study, eight hours. Introduction to music of various African cultures and regions. Through readings, lectures, 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 C236B. 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, styles, technical improvisation, and contemporary 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 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 imperatives have long had direct and often explicit impact on music sound and context in East Asia. Examination of historical and contemporary studies of musicology and musical practice in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C250. Letter grading.

C155. Intangible Cultural Heritage Worldwide. (4) Lecture, four 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; pioneering roles of Japan, South Korea, and UNESCO in making intangible cultural heritage a focal point of cultural policy worldwide; tensions among international ideals, national-state nationalism, regionalism, ethnicity, and independence in creating 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.


C156A. Lecture, four hours. Requisite: course 20C. Limited to Ethnomusicology, Music, and Dance of American Indians. Survey of traditional, popular, and Western-influenced musics currently widespread in China, including musical analysis of different genres; examination of contexts in which they exist. Interiorization of sound effect of Confucian and Communist ideologies on music. Concurrently scheduled with course C256A. 156B. Lecture, three hours; laboratory, two hours. Requisite: course C156A. Introduction to Chinese musical notation systems. Analysis of representative styles.


C159. Music on China's Periphery. (4) Lecture, four hours; outside study, eight hours. Designed for undergraduate Ethnomusicology, Music, 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 musics from Mongolia, Uighurs of Xinjiang, Tibet, Tibet-Burman peoples, Hmong, and indigenous peoples of Taiwan. Concurrently scheduled with course C259. P/NP or letter grading.

160. Survey of Music in Japan. (4) Lecture, three hours. Survey of main genres of Japanese traditional musics, including shibai-cho, koto music, koto music, shamisen music, and music used in various theatrical forms. P/NP or letter grading.

161A-161Z. Advanced World Music Performance Organizations. (2 each) Activity, three hours; outside practice, three hours. Limited to Ethnomusicology majors. Advanced study of traditional vocal and instrumental world music. May be repeated for credit without limitation. Letter grading.


162. Advanced Private Instruction in Music. (2) Studio, one hour; outside practice, five hours. Preparation: completion of years 2A through 9A or 9B. Limited to Ethnomusicology majors. Advanced private or semiprivate music instruction with distinguished community-based musician, that must be arranged in advance with the course instructor. May be repeated for credit without limitation. 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.


M173. Selected Topics in Music and Religion in Popular Culture. (5) Same as Musicology M173.) Seminar, two hours. Exploration of music as cultural practice and social construct. Discussion of music performed in religious contexts, its media and performance practices, cultural representations of religious experience, and the impact of religious music on society. Credit may not be applied to both M173 and M173B. 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 structure. P/NP or letter grading.

CM182. Music Industry. (4) (Same as Music CM182, Musicology CM186, and Music Industry M182.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Music History 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 CM188. Letter grading.


C184. Public Ethnomusicology. (4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology majors. How music industry functions and how products are created, marketed, and consumed. Techniques of pure research, basic and theoretical in nature, contrasted with those of applied research, practical and policy-oriented in approach. Limited to Ethnomusicology majors. Examination in composition using variety of Western and non-Western musical systems. Final project required. Letter grading.
185. Information Literacy and Research Skills. (1) Tutorial, one hour. Limited to Ethnomusicology majors. Designed to assist students with becoming information literate. How to locate, identify, and critically evaluate and use print and electronic information effectively and efficiently.

186. Senior Recital or Project. (2, Tutorial, one hour. Limited to seniors. Final project for students who, with approval from their faculty advisors, perform one-hour recital or have their compositions performed in one-hour recital. Organization and arrangement of rehearsal schedule with appropriate accompanying and preparation of program for performance. Grades are assigned in term recital is performed or composition is completed and performed. P/NP grading.

188. Community or Corporate Internships in Ethnomusicology. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors with minimum cumulative 3.0 grade-point average. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract required. Letter grading.

193. Journal Club Seminars: Ethnomusicology. (2) Seminar, two hours; outside study, four hours. Limited to undergraduate students. Reading and discussion of writings in the field of ethnomusicology. May be repeated for credit. P/NP grading.

195A. Community or Corporate Internships in Ethnomusicology. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors with minimum cumulative 3.0 grade-point average. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

195B. Community or Corporate Internships in Public Ethnomusicology. (2 to 4) Tutorial, six to 12 hours. Limited to seniors in public ethnomusicology emphasis. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide weekly reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

196. World Music Teaching Practicum. (4) Seminar, two to six hours outside study, seven hours. Limited to junior/senior Ethnomusicology majors. Integration of academic work and hands-on training. Participation in theoretical discussions of world music education and application of these theories in elementary and secondary music and social studies classrooms. P/NP 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 seniors. Individual intensive study in ethnomusicology, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in final research project required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Ethnomusicology. (2 to 4) Tutorial, to be arranged. Limited to junior/senior Ethnomusicology majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 8 units. Individual contract required. Letter grading.

Graduate Courses

C200. Audiovisual Archiving in 21st Century. (4) Seminar, three hours. Designed for Ethnomusicology majors. Examination of history, present state, and future of audiovisual archives, with specific focus on ethics, copyright, contracts, fieldwork, preservation, and access to audiovisual technology, space, budgets, and staffing. Concurrently scheduled with course C100. S/U or letter grading.

C201. 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.

C202. Current Issues in Ethnomusicology. (4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. Current issues, basic literature, and schools of thought in field of ethnomusicology from 1980s to present. Letter grading.


205. Seminar: Information Technology and Research Skills. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Lecture, demonstration, and practice. Basic skills for research on and about music that is essential to student careers as ethnomusicologists, specifically information technology skills, acoustics, and representational tools for nonlinguistic acoustic phenomena. Basic understanding of acoustics, ability to represent sounds in various graphic forms appropriate to them, and ability to locate and organize information sources related to field of ethnomusicology. Letter grading.

206. Integrating Theory with Ethnography. (4) Seminar, three hours. Designed to show how theory and primary research can inform and affect each other, and how various authors have integrated theoretical writings and ideas with their ethnographic or historical data. Reading of several recent ethnographies, mostly about music and related studies, in tandem with theoretical writings that inform arguments of these books. Letter grading.


208. Seminar: Latin American Music. (4) Seminar, three hours. Review of bibliographic, methodological, and philosophical bases of musical research in Latin America, working from both general and specific perspectives. Exploration of research problems and investigations on specific musical cultures and distinct genres of musical expression. S/U or letter grading.


CM212. African American Music in California, (4) (Same as African American Studies CM212A) Lecture, four hours. Historical and analytical examination of African American music in California, including history, migration patterns, and urbanism to determine the factors on development of African American music in California. Concurrently scheduled with course CM112. S/U or letter grading.

215A-215B. Ethnomusicological Perspectives and Pedagogies II, II (4-4) Seminar, three hours outside study, nine hours. Limited to graduate ethnomusicology students. Basic literature and schools of thought in field of ethnomusicology and related social sciences. Letter grading. Limited to 19th centu- ry to 1980s; 215B, 1980s to Present.

216A-216B. Ethnomusicological Methods II, II, (4–4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. Letter grading. 216A. Basic research techniques and perspectives on conducting research and writing it up in ethnomusicology, 216B. Introduction to basic ethno- graphic fieldwork techniques and practices in ethnomusicology.


230. European Musics: Politics, Identities, Nationalisms. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. European classical, popular, and world music, with particu- lar attention to way in which music mirrors, negoti- ates, and contests ideas about and practices of na- tional and other forms of identity, ideas developed in other domains of discourse and practice such as phil- osophy, history, literature, art, and folklore. Examination of way musicians, ordinary people, and politi- cians have used music to affect political processes in- volved in the contesting and resolving tensions created between and among these identity formations. Histori- cal period coverage primarily from 19th and 20th centuries, with examples from all over European contin- ent. Letter grading.

233A-233B-233C. European Traditional and Popular Music. (0–0–4) Discussion, one hour. Review of literature on European traditional and popular music, with special attention to modern issues and procedures. May be repeated for credit. In Progress (233A, 233B and letter grading 233C). C236B. Music of Africa. (4) Lecture, four hours; outside study, eight hours. Introduction to music of vari- ous African cultures and regions. Through readings, lecture, and viewing of films, students gain greater understanding of diverse musical traditions found on African continent and become more cognizant of contributions that people of Africa have made to world music. Concurrently scheduled with course C136B. Letter grading.


241. Music of Turkey and Iran. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Comparative study of music of Iran and other related countries, including Turkey. Critical re- ference 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 perfor-
mance ensembles (course 91N or 161N) required. Concurrently scheduled with course C141. S/U or letter grading.

248. Classical Music of India. (4) Lecture, three hours; outside study, nine hours. Requisite: course 146 or 147. Study of history, theory, and practice of classical Indian 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.

C250. Music and Politics in East Asia. (4) Lecture, four hours. Designed for graduate students. Political implications of gender, ethnicity, and other social practices and their impact on music sound and context in East Asia. Examination of interaction of ideology and musical practice in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C150. Letter grading.


C255. Intangible Cultural Heritage Worldwide. (4) Lecture, three hours; outside study, nine hours. Designated for graduate students. Ethnomusicology, music history, and world arts and cultures graduate students. Through critical reading of publications by scholars, officials, and culture-bearers involved in intangible cultural heritage policy and practice, examination of history of heritage conservation; concepts of tangible and intangible heritage; pioneering roles of Japan, South Korea, and UNESCO in making intangible cultural heritage focal point of much cultural policy worldwide; tensions among international ideals, nation-state nationalism, regionalism, ethnicity, and indigeneity in 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 policy issues, and related concepts of sustainability. Concurrently scheduled with course C155. Letter grading.

C256A. Music in China. (4) Lecture, four hours. Requisite: course 20C. Limited to Ethnomusicology majors. Survey of traditional, popular, and Western-influenced musics currently widespread in China, including musical analysis of different genres; examination of contexts in which they exist. Investigation of profound effect of Confucian and Communist ideologies on music. Concurrently scheduled with course C156A. Letter grading.

C259. Music on China’s Periphery. (4) Lecture, four hours; outside study, nine hours. Designed for graduate Ethnomusicology, Music, and Musicology majors. Examination of selected early-20th-century developments in central and northern China, and consist of presentations by guest lecturers, faculty, and student fellows. Teaching apprenticeship under active guidance. May be repeated for credit. S/U or letter grading.

M261. Gender and Music in Cross-Cultural Perspective. (4) Same as Gender Studies M261.) Seminar, three hours. Designed to foster in-depth understanding of gendered music study of music as culture. Topics range from trajectory of gender and sexuality, (de)codification of messages of resistance, and gender representation to gendered politics via musical production. S/U or letter grading.

262. Musical Ethnography. (4) Seminar, three hours; outside study, nine hours. Examination of selected book-length ethnographies, most published in last 10 years, as both literary genre and research procedure. S/U or letter grading.

263. Perspectives in Popular Music Research. (4) Seminar, three hours. Investigation of theoretical paradigms, issues, and research models of popular music, with emphasis on world music genres, local/global markets, mass mediation, appropriation and aesthetic styles, and aesthetic/ideological assumptions, and impact of popular music studies on ethnomusicology. Letter grading.

264. Urbanism and Music. (4) Seminar, three hours; outside study, nine hours. Relationship between music and consciousness in different world cultures and role music plays in ecstatic experiences. Phenomena include trance, spirit possession, shamanism, religious ecstasy, mysticism, and artistic inspiration. S/U or letter grading.

268. Modernity and Musical Experience. (4) Seminar, three hours; outside study, 10 hours. Designed for graduate students. Examination of possibilities for subject-centered musical ethnography to account for fragmented musical experience in modern world. Consideration of local and world musics in relation to modernity, postmodernity, globalization, notions of self and subject, power, and media images. Letter grading.

271. Seminar: Acoustics of Music. (6) Seminar, three hours. Requisites: course 170. Selected topics in acoustics, including laboratory methodologies and practical applications. Topics include Western and non-Western woodwinds in acoustics; psycho-acoustics, and methods of spectral analysis. May be repeated once for credit. S/U or letter grading.

273. Seminar: Psychology of Music. (6) Seminar, three hours. Survey of 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 aesthetic thought, including value, meaning (semiotics), historical development of theoretical perspectives and critical theory, and interpretation. May be repeated once for credit. S/U or letter grading.

279. Seminar: Systematic Musicology. (4) Seminar, three hours. Requisite: course 170. Exploration of specific topics in general field of systematic musicology. MAY include in applied musicology, acoustics, aesthetics, music perception, philosophy, organology, sociology, and experimental approaches. May be repeated for credit. S/U or letter grading.

280. Teaching World Music and Music Appreciation. (4) Seminar, three hours. Preparation: two ethnomusicology courses or concurrent enrollment in course 20A, 20B, or 20C. Designed for ethnomusicology and musicology graduate students. Practical overview of current pedagogical philosophies and texts used in teaching introductory music survey courses, specifically music appreciation and general world music. Letter grading.

281A-281B. Seminar: Field and Laboratory Methods in Ethnomusicology. (6-8) Seminar, three hours; laboratory, two hours. Requisites: courses 201, 202. Fieldwork concepts and methods using technical equipment, conducting interviews, dealing with ethical issues, and designing research projects. 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; the expression of their societal imperatives have long had direct and often explicit musical expression in these societies. Theory considered as science of music; its place between cultural values and artistic practice in different civilizations. S/U or letter grading.

288. Seminar: Music Ethnography. (4) Seminar, 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.


CM288. Music Industry. (4) (Same as Music CM282 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 music is performed, created, listened to, evaluated, and used today. Historical approach taken, beginning with music industry as it was published in ancient China and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM182. Letter grading.

M289. 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 or letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice percussion employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty members responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495A. Teaching Apprentice Practicum. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Ethnomusicology Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching ethnomusicology and systematic musicology at college level. May not be applied toward degree requirements. S/U grading.

495B. Teaching with Technology. (2) Seminar, three hours; outside study, three hours. Limited to graduate ethnomusicology students. Training in presentation, spreadsheet, web design, and digitization software, and its application in classroom and in preparation of electronic teaching portfolio. S/U grading.

596. Directed Individual Studies. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward MA minimum course requirements. S/U or letter grading.

597. Preparation for Master’s Comprehensive Examination or PhD Qualifying Examinations. (2 or 4) Tutorial, to be arranged. May be repeated for credit. S/U grading.

598. Guidance of MA Thesis. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

599. Guidance of PhD Dissertation. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

**European Studies**

See International and Area Studies

**Family Medicine**

David Geffen School of Medicine

50-071 Center for Health Sciences

Box 951683

Los Angeles, CA 90095-1683

Family Medicine

310-825-8234

Patrick T. Dowling, MD, MPH (Kaiser Permanente Endowed Professor of Community Medicine), Chair

Martin A. Quan, MD, Vice Chair, Academic Affairs

Michelle Anne Bholat, MD, MPH, Vice Chair, Clinical Affairs

Denise K.C. Sur, MD, Vice Chair, Education and Director, UCLA

Michael A. Rodriguez, MD, MPH, Vice Chair, Global Health

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David Araujo, MD, Director, Ventura County

Pamela Davis, MD, Director, Northridge Hospital

Lynne M. Diamond, MD, Director, Pomona Valley

Kathleen Dor, MD, Director, Kaiser-Woodland Hills

Theresa Nevarez, MD, MBA, Director, Harbor-UCLA

Carol A. Stewart, MD, Director, Clinica Sierra Vista

John K. Su, MD, Director, Kaiser-Sunset

**Scope and Objectives**

The Department of Family Medicine provides all students with a basic introduction to family-centered care in both the inpatient and ambulatory settings. During the basic clerkship, students develop (1) an appreciation of the breadth and scope of family medicine, (2) a basic knowledge in the broad content areas of family medicine, and (3) fundamental clinical skills appropriate to family medicine, including the coordination and management of patients with multiple chronic diseases. The overall goal is to provide students with the opportunity to gain an understanding and appreciation of the central role of family physicians in the health-care system, and to offer advanced clinical training for those students interested in pursuing careers in family medicine. Further, the basic curriculum includes an overview of healthcare issues facing underserved and immigrant populations in urban America.

Family medicine faculty members are in leadership roles in the teaching program and in the Primary Care College. All first-year students are assigned to work with a family medicine faculty member once a month on a longitudinal basis for the entire year as part of the teaching program. In the third and fourth (clinical) years, required and elective opportunities exist. All students take a required four-week clerkship in the third year, which is offered at over 10 teaching sites.

The department offers paid six-week electives known as Summer Research Fellowships after the first year of medical school. This program teaches students how to collect data and submit applications for federal designation as underserved areas. It includes journal article reviews on healthcare reform and disparities, as well as the geographic mal-distribution 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 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 6) 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.

**Film, Television, and Digital Media**

School of Theater, Film, and Television

103 East Melnitz Building

Box 951622

Los Angeles, CA 90095-1622

Film, Television, and Digital Media

310-206-8441

Department e-mail

Kathleen A. McHugh, PhD, Chair

**Professors**

Barbara Boyle, JD

Jeffrey A. Burke, in Residence

John T. Caldwell, PhD

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Liza Johnson, MFA

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Purnima Manekar, PhD

Denise R. Mann, PhD

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Teri E. Schwartz, MA, Dean

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Becky J. Smith, MA

**Professors Emeriti**

Jerzy Antczak, MA

Janet L. Bergstrom, PhD

Nicholas K. Browne, EdD

Gyula Gazdag, MFA

Marina Goldovskaya, PhD

A.P. Gonzalez, MA

Lewis R. Hunter, MA

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Barbara Marks

Robert Rosen, MA

Vivian Sobchack, PhD

Howard Suber, PhD

Richard Walter, MA

Peter Wollen, BA

John W. Young, MA

**Associate Professors**

Steven F. Anderson, MFA, PhD

Shelleen M. Greene, PhD

Arne O. Lunde, PhD

Ellen C. Scott, PhD

C. Fabian Wagemaster, MFA

**Assistant Professors**

Kristy M. Guevara-Flanagan, MFA

Rory M. Kelly, MFA

Jasmine N. Trice, PhD

**Lecturers SOE**

Harold L. Ackerman, MA, Emeritus

Mark McCarty, MA, Emeritus

**Lecturers**

Tim T. Albaugh, MFA

William J. Barminski

Suny Behar Parker, MFA

Christopher W. Borey, MFA
Visiting Assistant Professors

Tim Good
David Hobberman
Mai H. Kinberg, PhD
Michael T. Puopolo, MBA
Kenneth Suddleson, JD

Scope and Objectives

The purpose of the Department of Film, Television, and Digital Media is to develop in its students a scholarly, creative, and professional approach to film, television, and digital art forms. The aim of the department is to train graduates who will eventually make original contributions in their chosen field.

The department offers an undergraduate minor in Film, Television, and Digital Media; an undergraduate program leading to the Bachelor of Arts in Film and Television; and graduate programs leading to the Master of Arts, Master of Fine Arts, and PhD degrees in Film and Television.

For current or specific information about the programs and faculty members, see the department website.

Undergraduate Study

The Film and Television major is a designated capstone major. Undergraduate students are required to complete one departmentally sponsored internship course as well as coursework related to the senior thesis concentration area. All courses, including capstone senior thesis projects, involve workshopping individual projects. Group participation in the creation and production of each student’s project is core to the curriculum. Specific student learning objectives vary based on concentration area.

Film and Television BA Capstone Major

The undergraduate Film and Television major encourages development of a personal vision that incorporates creative, practical, intellectual, and aesthetic values. Within the context of a liberal arts education, the program provides a broad background in the field and in the diversity of film and television practice, including courses in history and theory, critical thinking, animation, digital media, and producing.

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
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, 51, 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 (MFA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Film and Television.

**Film and Television Lower-Division Courses**

1A-1B-1C. Freshman Symposium. (1–1–1) (Formerly numbered 10A.) 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. Students acquire understanding of practical and aesthetic challenges under taken by artists and professionals in making motion pictures and television. Examination of film as both art and industry: storytelling, sound, and visual design, casting and performance, editing, finance, advertising, and distribution. Exploration of American and world cinema from filmmaker's perspective. Honing of analytical skills and development of critical vocabulary for study of filmmaking as technical, artistic, and cultural phenomenon. P/NP or letter grading.

6A. History of American Motion Picture. (6) (Formerly numbered 106A.) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of American motion picture both as developing art form and as medium of mass communication. Letter grading.

10A. American Television History. (5) (Formerly numbered 110A.) Lecture/screenings, five hours; discussion, one hour. Critical, historical, aesthetic, and social 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, critical analysis, viewing, and discussion of key television shows, as well as Hollywood films that comment on radio and television. Consideration of television programs and series in terms of sociocultural issues (consumerism, lifestyle, race, national identity) and industrial practice (programming, policy, regulation, business). Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

53. Introductory Screenwriting. (4) (Formerly numbered 133C.) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course C132/C430. Structural analysis of feature films and development of professional screenwriters' vocabulary for constructing, deconstructing, and reconstituting their own work. Screenings of films and selected film sequences in class and by assignment. P/NP or letter grading.

560. Introduction to Visual Culture. (5) (Same as English 560L.) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of how visual media shape understanding, 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.

52. Cinematography. (4) (Formerly numbered 150.) Lecture, three hours; laboratory, three hours. Enforced requisite: course 1A. Limited to Film and Television majors. Introduction to motion imaging photography for thorough understanding of fundamental tools and principles of cinematography to the images that support and enhance story of film, achieve comprehension of principles of motion imaging photography through lectures, discussions, and screenings, development skills of lighting by shooting exercises during laboratory period, and acquire appreciation of art of cinematography. Language and skills of image construction provided, as well as image analysis and deconstruction. 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 practices for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 8 units. Letter grading.

84A. Overview of Contemporary Film Industry. (4) (Formerly numbered 184A.) Lecture, three hours; discussion, one hour. Examination of evolving economic structures and business practices in contemporary Hollywood film industry, with attention to 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 supplementary readings, films, 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.

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 enforced requisite to 102B, which is enforced requisite to 101C. Limited to Film and Television majors. Structured forum in which juniors meet on regular basis to discuss curricular issues, meet with faculty members, and have exposure to array of guest speakers from within film industry. Letter grading.

102A-102B-102C. Senior Symposium. (1–1–1) (Formerly numbered 100B) Laboratory, three hours. Enforced requisite: course 101A. Course 102A is enforced requisite to 102B, which is enforced requisite to 102C. Limited to Film and Television majors. Structured forum in which seniors meet on regular basis to discuss curricular issues, meet with faculty members, and have exposure to array of guest speakers from within film and television industry. Letter grading.

106B. History of European Motion Picture. (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of Euro pean motion picture both as developing art form and as medium of mass communication. Letter grading.

106C. History of African, Asian, and Latin American Film. (8) Lecture/screenings, eight hours; discussion, one hour. Critical, historical, aesthetic, and social study—together with emphasis on significant—of Asian, African, Latin American, and Mexican films. Letter grading.
through which documentaries can be understood, media environment. Exploration of theoretical models of representation and platforms as situated within complex today’s documentary modes of representation and one hour; screenings, three hours. Examination of unconventional developments in motion pictures. Letter grading.

110. Film and Social Change. (4) 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, social drama). P/NP or letter grading.

M117. Chicanos in Film/Video. (5) Same as Chicana and Chicano Studies M111.) Lecture/screenings, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicano cinema as political, socioeconomic, cultural, and aesthetic practice. Examination of representative Mexican Americans and Chicanos in four Hollywood genres—silent greaser films, social problem films, Westerns, and gang films—that are major genres that account for films made by non-European 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 Greedo, East L.A., and Zoot Suit. Concurrently scheduled with course C135B, and third act in course C135A, followed by second act in course 135B, and third act in course 135C. Letter grading.

120. Digital Cinematography. (4) Lecture, three hours. Through discussions, screenings, demonstrations, and guest speakers, exploration of scriptwriting, previsualization, directing actors, directing camera coverage in relationship to story, practical on-set directing, and directing for camera. P/NP or letter grading.

122N. History of Animation in American Film and Television. (5) Lecture, six hours. Survey of art of animation in America from its precinema origins to recent films of Disney, Pixar, DreamWorks, Ghibli, and others. Place of animation in pop culture, racial imagery and ethnic stereotypes, growth of art form, and how it reflects American society. P/NP or letter grading.

122M. Film and Television Directing. (4) Lecture, three hours. Through discussions, screenings, demonstrations, and guests, exploration of scriptwriting, previsualization, directing actors, directing camera coverage in relationship to story, practical on-set directing, and directing for camera. P/NP or letter grading.

122J. 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.

122I. Writing for Animation Series. (5) Lecture, three hours; laboratory, one hour. Analysis of creative process in theater, film, and television, with consideration of writing, direction, and television. Students conceive and produce Web works and serve them online. Contextualization of creative aspects of World Wide Web as medium for personal/collective expression. Students produce Web works and serve them online, Contextualization of medium by looking at its history, economic, and sociopolitical consequences. May be repeated once for credit. Concurrently scheduled with course C245. Letter grading.


126. Acting for Film and Television. (4) Studio, six hours. Projects in acting for television, video, and film. May be repeated twice for credit. P/NP or letter grading.

128. Media and Ethnicity. (4) Lecture, four hours. Utilizing Asian American experience, exploration of impact and uses of media on contemporary American ethnic communities. Role and techniques of media influence besides mass utility and production. P/NP or letter grading.

CM129. Contemporary Topics in Theater, Film, and Television. (2) Same as Theater CM129.) Lecture, two hours; screenings, two hours. Limited to junior/ senior and graduate theater/film and television stu- dents. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of individual contributions; evolution of aesthetics; examination of distinctiveness and interrelations among these arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated for credit concurrently scheduled with course CM229. P/NP or letter grading.

C132. Screenwriting Fundamentals. (2) Lecture, one hour. Corequisite for graduate students enrolled in course 431. Not open to credit with students credit for course 33. Examination of screenwriting fundamentals: structure, character development, development, conflict, locale, theme, history of drama. Review of authors such as Aristotle. Concurrently scheduled with course C430. P/NP or letter grading.


135A-135B-135C. Advanced Screenwriting Workshops. (6–6–8) Laboratory, three hours. Requisite: course 135A. Course 135A required 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.

140. Interactive Expression. (4) Lecture, six hours. Introduction to history and practice of interactive media, with emphasis on uniqueness of computer-mediated expression. Letter grading.

C142. Digital Imagery and Visualization. (4) Lecture, three hours; laboratory, three hours. Introductory hands-on investigations of techniques of digital still imaging and aesthetics of digital image output shows in historical perspective, with eye toward examining dynamics of cultural constructions and visual codes. Students conceive and produce several digital image visualizations. May be repeated once for credit. Concurrently scheduled with course C242. Letter grading.

C143. Moving Digital Image. (4) Lecture, three hours; laboratory, three hours. Investigation of different ways of creating and manipulating linear moving images (digital video) on desktop computers, exploring both creative and theoretical aspects of this production environment. Students conceive and produce number of short projects. Concurrently scheduled with course C243. Letter grading.

C144. Interactive Multimedia Authoring. (4) Lecture, three hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Exploration of methodologies and tools for media integration, interface design, and interactive audiovisual construction. Students conceive, produce, and master individual interactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C244. Letter grading.

146. Art and Practice of Motion Picture Producing. (4) Lecture, three hours; discussion, one hour. Exploration of role of producer as both artist and business person. Comparative analysis of screenplays and completed films. Emphasis on assembly of creative team and communication process in small film environments. Concurrently scheduled with course C147. Letter grading.

C147. Planning Independent Feature Production. (4) Lecture, three hours; laboratory, one hour. Analysis of procedure, problems, and budgets in planning feature-length script for film and television production, with emphasis on role of producer and creative organizational techniques of producing. Concurrently scheduled with course C147. Letter grading.

C148. Advanced Digital Media Workshop. (4) Laboratory, two hours; discussion, four hours. Designed for students with previous laboratory course experience to provide opportunity to create larger-scale digital media works utilizing proprietary software tools and techniques in small process-oriented, creative workshop environment. May be repeated twice for credit. Concurrently scheduled with course C248. 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). Repetition of sound film. May be repeated twice for credit. Letter grading.

152. Film and Television Sound Recording. (4) Lecture, three hours; laboratory, to be arranged. Limited to Film and Television majors. Introduction to principles and practices of film and television sound recording, including supervised exercises. P/NP or letter grading.

C152C. Digital Audio Postproduction. (4) Lecture, three hours; laboratory, to be arranged. Enforced requisites: courses 101A, 185. Limited to Film and Television majors. Through discussion, demonstrations, and laboratory assignments, exploration of 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 C452C. Letter grading.

153. Motion Picture Lighting. (4) Lecture, three hours; laboratory, three hours. Enforced requisites: courses 52, 101A, 185. Limited to Film and Television majors. Introduction to principles and tools of lighting used in visual storytelling through lectures, discussions, and screenings. Creative lighting techniques covering topics such as people, environment, spatial relationships, movement, color, special effects, and continuity. Letter grading.

154. Film Editing. (4) Lecture, three hours; laboratory, two hours. Enforced requisite: course 101A. Limited to Film and Television majors. Introduction to aristic and technical problems of film editing, with practical experience in editing of image and synchronous sound. Letter grading.

C154B. 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. Enforced requisites: 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 to edit significant work of another director. Enforced requisite: course 175A is requisite to 175B. Writing, pre-production, and production for short film. Letter grading.

M177. Film and Television Acting Workshop. (2) Same as Theater M178.) Laboratory, four hours. Workshop providing opportunities for students to rehearse and produce a play. Three different production styles to which performers may need to adjust are (1) pre-production 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. May be repeated for maximum of 12 units, but only 8 units may be applied toward Film and Television major. Letter grading.

180A. Animation Fundamentals. (5) Lecture, six hours; laboratory, six hours. Fundamentals of animation through exercises and preparation of short animated films. Students create 10-second film in one of traditional techniques (non-computer), with music and/or sound effects. Offered in summer only. Letter grading.

180B. Writing for Animation. (4) Lecture, two hours; laboratory, six hours. Analysis and practice of effective visual storytelling through creation of three production storyboards. Offered in summer only. Letter grading.

180C. Stop Motion Fundamentals Workshop. (3) Lecture, six hours; laboratory, six hours. Exercises designed to give illusion of movement. Exploration of early history of stop motion. Collaborative creation of stop-motion film with each student directing and animating portion of film. Offered in summer only. Letter grading.

C186A. Introduction to Animation. (Formerly numbered 181A.) Lecture, three hours; laboratory, three hours. Drawing experience not required. Fundamentals of animation through preparation of short animated film. Concurrently scheduled with course C491A. P/NP or letter grading.

C181B. Writing for Animation. (4 or 8) (Formerly numbered 181B.) Lecture, six hours; studio, to be arranged. Enforced requisite: course C181A or consent of instructor. Research and practice in creative writing and planning for animated film. May be repeated for maximum of 16 units. Concurrently scheduled with course C491B. P/NP or letter grading.

C181C. Animation Workshop. (4 or 8) (Formerly numbered 181C.) Lecture, four hours; preparation: storyboard at first class meeting. Enforced 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 C491C. 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 determining life 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 film and television production process. Basic introduction to story and exploration of proper technique for evaluating screenplays and teleplays through writing of coverage. May be taken independently for credit. Letter grading.

C183B. Producing II: Entertainment Economics. (4) Lecture, three hours; discussion, one hour. Open to nonmajors. Critical understanding 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. Introduction to the production of feature films across multiple exhibition platforms and subsequent reception and consumption by audiences. Focus on engagement between distributor, exhibitor, and audience and how these concepts are applied in 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; laboratory, one hour. Examination of evolving economic structures and business practices in contemporary Hollywood television industry, with emphasis on operating relationships between networks and cable companies, social development, market, and network branding from 1947 to present. Letter grading.

185. Intermediate Undergraduate Film Production. (6) Laboratory, six hours. Requisites: courses 52, 154, 155, 156, 163. Limited to Film and Television majors. Instruction 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. Enforced requisite: course 185. Course 186A is requisite to 186B, which is requisite to 186C. Introductory writing and discussion of selected documentaries and discussion 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 C403A. Letter grading.

C186B. Advanced Documentary Workshop. (4) (Formerly numbered 186B.) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Enforced requisite: course C186A. 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 C403B. Letter grading.

C186C. Advanced Documentary Workshop. (4) (Formerly numbered 186C.) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Enforced requisite: course C186B. Advanced viewing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Completion of series of exercises from conceptualization through postproduction, culminating in production of short documentary. Concurrently scheduled with course C403C. Letter grading.

188A. Special Courses in Film, Television, and Digital Media. (4) Lecture, three hours; discussion, one hour. Special topics in film, television, and digital media for undergraduate students taught on experimental or temporary basis. May be repeated for credit. P/NP or letter grading.
159. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with topic change. Letter grading.

194. Internship Seminars: Film, Television, and Digital Media. (2 to 8) Tutorial; fieldwork, 12 hours. Enforced corequisite: course 194. Limited to juniors/seniors. Corporate internship in supervised setting in business related to film, television, and digital media industries. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research or Senior Project in Film, Television, and Digital Media. (2 to 8) Tutorial, one hour; fieldwork, 12 hours. Enforced corequisite: course 194. Limited to juniors/seniors. Corporate internship in supervised setting in business related to film, television, and digital media industries. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

Graduate Courses

200. Seminar: Research, Methods, and Resources. (8) Seminar, three hours; laboratory, four to six 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/video-ecodic 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 study film and television production practices (e.g., production, and industry phenomena, as basis for individual student research project). Letter grading.

201B. Seminar: Media Industries and Cultures of Production—Transmedia. (6) Seminar, three hours; film screenings, three hours. Prerequisite: course 201A. Examination of contemporary production studies research and transmedia practices, including innovations in marketing, licensing, distribution, industrial organization, creative work, new technologies, and evolving relations between fans and producers in digital economy. Letter grading.

202. Seminar: Media Audiences and Cultures of Consumption. (6) Seminar, three hours; film screenings, three hours. Critical study of reception and use of television and electronic media and examination of theoretical approaches to culture and audience research. Consideration of issues of cultural taste, consumption, style/lifestyle, identity, and relationships between audience, industry, and mass-marketed images/commodities. Letter grading.

203. Seminar: Film and Other Arts. (6) Seminar, three hours; film screenings, four 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 filmmaking to attempt to understand some ways it can operate. Letter grading.

206A. Seminar: European Film History. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies in different periods of European cinemas or movements. Topics may include Italian neorealism, French film of 1930s, French New Wave, German cinema, and Soviet silent cinema. See annual department listings for special topics. May be repeated twice for credit with topic change. Letter grading.

206B. Seminar: Selected Topics in American Film History. (6) Seminar, three hours; film screenings, three hours. Seminar with focus on specific topic or period in American film history. Letter grading.

206C. Seminar: American Film History. (6) Seminar, three hours; film screenings, four hours. Introduction to theoretical approaches to culture 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 the 1920s. Several emphasis discussed in terms of genre, national cinema, formal developments, and directors. Readings on historical and theoretical issues. Letter grading.

207. Seminar: Critical Approaches to Film and Television. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies of form, style, politics, and history of experimental, avant-garde, and minority film and video. Letter grading.

208A. Seminar: Film Structure. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Examination of various film conventions, both fictional and nonfictional, and of role of structure in motion picture. S/U or letter grading.

208B. Seminar: Classical Film Theory. (6) Seminar, three hours; film screenings, four to six 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. Designed for graduate students. Study of tradition of critical work and analysis 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. Study of documentary film practice from the 1920s to the present. Letter grading.

209B. Seminar: Nonfiction Film. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of nonfiction 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: Beginning Graduate Students. (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. Examination of function and methods of writing film and television history as exemplified by key works in this tradition, with attention to central issues of historical thought on media. S/U or letter grading.

212. Cinema and Media Studies Graduate Colloquium. (2) Lecture. Exchange with scholars inside and outside department through lectures and academic paper presentation and offers students practice in presenting papers for professional conferences. Open to graduate students. 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 thesis coursework. Letter grading.

215. Seminar: Theory and Method. (6) Seminar, three hours. Limited to Film and Television PhD candidates. Examination of major modes of theoretical re- flection that bear on film making through study of central texts of such traditions as phenomenology, auristim, semiotics, psychoanalysis, sociology, etc. S/U or letter grading.

215B. Seminar: Text and Context in Intermedia 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 literature, theories of film, or theories texts of texts. 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 illumination of work required to bring characters from written page to life. Discussion of practice of costume design. Analysis of films from various genres. Letter grading.

217A. Seminar: American Television History. (6) Seminar, three hours; screenings, four hours. Critical survey of U.S. television industry from its inception to present. Examination of programming and changes within industry by considering range of technological, economic, aesthetic, social, and cultural dimensions. Letter grading.

217B. Seminar: Selected Topics in Television History. (6) Seminar, three hours; screenings, three hours. Advanced critical seminar, with focus on specific topic or area (historical period, industry, program- ming, 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). Themati- zation is continuous. Focus is on difference rather than similarity or identity—with how other cul- tures enter into politics of representation and repre- sentation of politics through metaphor (1) difference without opposition (2) heterogeneity without hi- erarchy, and/or (3) otherness without ethnocentrism. 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; screenings, four hours. Designed for graduate students. Study of ways films 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, four hours; screenings/discussion, three hours. Designed for graduate students. Study of ways television forms affect and are affected by social behavior, belief, and value systems; appreciation 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. Introduction to works of outstanding creators of films. May be repeated twice for credit. S/U or letter grading.

222. Seminar: Film Genres. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies of patterns, styles, and themes
of such genres as Western, gangster, war, science fiction, comedy, etc. May be repeated twice for credit. S/U or letter grading.

223. Seminar: Visual Perception. (6) Seminar, three hours; film screenings, three hours. Aesthetic, psychological, and phenomenological approaches to vision as they relate to ways in which viewers experience and see film, television, and digital media. Letter grading.

224. Computer Applications for Film Study. (6) Lecture, three hours; film screenings, three hours. Survey of computer applications relevant to film study, principally computer-videodisc systems and image capture technology. S/U or letter grading.

225. Seminar: Videogame Theory. (6) Seminar, three hours; laboratory, three hours. Videogame theory with exploration of 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 videogame field. S/U or letter grading.

229. Contemporary Topics in Theater, Film, and Television. (2) Same as Theater CM229. 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 an emphasis on writing, directing, producing, and performance. Overview of individual contributions to collaborative effort; examination of distinctiveness and interrelations among these arts. Individual film or television projects. May be repeated twice for credit. Concurrently scheduled with course CM129. S/U or letter grading.


231. Seminar: Television Criticism. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Analysis of major forms of television production and criticism. It has been used as a tool to analyze and evaluate in relation to central works of motion picture criticism. May be repeated once for credit. S/U or letter grading.

232. Digital Imagery and Visualization. (4) Lecture, three hours; laboratory, three hours. Introductory hands-on investigation of techniques of digital still imagery and aesthetics of digital image, in context of examining dynamics of cultural constructions and visual codes. Students produce several digital image visualizations. May be repeated once for credit. Concurrently scheduled with course C142. Letter grading.

233. 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 platform. Emphasis on students conceiving and producing several digital videos projects. May be repeated once for credit. Concurrently scheduled with course C143. Letter grading.

234. Interactive Multimedia Authoring. (4) Lecture, three hours; workshop, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Exploration of methodologies and tools for media integration, interfacial design, and interactive audiovisual construction. Students conceive, produce, and master individual interactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C144. Letter grading.

235. Creative Authoring for World Wide Web. (4) Lecture, three hours; laboratory, three hours. Exploration of creative aspects of World Wide Web as medium for personal/collective expression. Students produce their own web works and see them online. Contextualization of medium by looking at its history, embedded ideology, and sociopolitical consequences. May be repeated once for credit. Concurrently scheduled with course C145. Letter grading.

236. Seminar: Issues in Electronic Culture. (6) Seminar, three hours; laboratory, three hours. Critical studies seminar with major hands-on laboratory component that explores impact of new digital technologies on contemporary culture and aesthetics. Students do laboratory projects using visualization, image manipulation tools, and Internet authoring tools. Letter grading.

237. Planning Independent Feature Production. (4) Lecture, three hours; laboratory, one hour. Analysis of procedure, problems, and budgets in planning feature-length script for film and television production, with emphasis on role of producer and creative organizational techniques of producing. Concurrently scheduled with course C147. Letter grading.

238. Advanced Digital Media Workgroup. (4) Laboratory, two hours; discussion, four hours. Designed for second-year graduate students. Two-hour course experience to provide opportunity to create larger-scale digital media works with advanced software tools and techniques in small process-oriented, creative workshop environment. May be repeated twice for credit. Concurrently scheduled with course C148. Letter grading.

240. Seminar: Film Criticism. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Critical questions of analysis and evaluation in relation to central works of motion picture criticism. May be repeated once for credit. S/U or letter grading.

241. Seminar: Television Criticism. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Analysis of major forms of television production and criticism. It has been used as a tool to analyze and evaluate in relation to central works of motion picture criticism. May be repeated once for credit. S/U or letter grading.

242. Seminar: Non-Western Films. (6) Seminar, three hours (additional hours as required); film screenings, three hours. Designed for graduate students. Study of aesthetic and ideological impulses of selected films from Asia, Africa, and Latin America. S/U or letter grading.


244. TV Development 1. (4) Seminar, three hours. Basic tenets and analysis of television scripted shows and contemporary industry production and business practices. Development of original show concepts and pitched for review by class, instructor, and guests. Letter grading.

245. TV Development 2. (4) Seminar, three hours. Advanced analysis of television scripted shows and contemporary industry production and business practices. Continued development of original show concepts and series proposals for review and feedback by class, instructor, and guests. Letter grading.


247. Writing Half-Hour Comedy Pilot and Series Bible. (6) Seminar, three hours. Requisite: course 283A. Examination of basics of half-hour pilot format, style, and content, and learning of principles behind network development process. 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.

248. Writing Half-Hour Drama Pilot and Series Bible. (6) Seminar, three hours. Requisite: course 283A. Examination of basics of drama pilot format, style, and content, and learning of principles behind network needs and choices in choosing pilots. Workshop in which to discuss ideas and issues with class and instructor. Weekly progress on original drama pilot and series bible required. Letter grading.

249. Writing One-Hour Drama Speculative Episode. (6) 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 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.

250. Introduction to Art and Business of Producing I. (4) Seminar, three hours. Requisite: course 283A. Builds on principles taught in course 287A and presents continued study of development, production, and distribution of feature films for worldwide theatrical market, including identifying material, attracting elements, and understanding basics of studio and independent finance and distribution. Minimum of two unproduced screenplays to be presented for review by class and instructor to begin identifying potential thesis projects. S/U or letter grading.

251. Introduction to Art and Business of Producing II. (4) Seminar, three hours. Requisite: course 287A. Builds on principles taught in courses 287A and 287B. Presentation of screenplays prepared in course 287B for review by class and instructor with goal of isolating and identifying primary and secondary thesis projects. Discussions of script analysis and creating set of viable development notes for these films. Workshop in which to identify material, attracting elements, and learning of basics of studio and independent finance and distribution. Minimum of two unproduced screenplays to be presented for review by class and instructor to begin identifying potential thesis projects. S/U or letter grading.

252. Writing Feature Film Development I, II. (4–4) Letter grading.

253. Writing Feature Film Development II. (4) Seminar, three hours. Course 288A is requisite to 288B. Practical hands-on approach to understanding and implementing producer's role in development of feature film screenplays and negotiating particulars of production process. Through in-class discussions, script analysis, story notes, and select guest speakers, exposure to various entities that comprise feature film development, production, and post-production. Letter grading.

254. Designing Feature Film Production. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Examination 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.

255. Strategy. (4) Lecture, three hours. Course 289A is not requisite to 289B. 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 entertainment industry. S/U or letter grading.

289C. Independent Spirit: Creative Strategies for Financing and Distributing Independent Features. (4) Lecture, three hours. Course 289B is not requisite to 289C. Exploration of 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.

290A. Research and Development I. (4) Seminar, three hours. Forum for roundtable strategy sessions and panel discussions with instructors, students, and various industry guests. Development of 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 their 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. Research and Development III. (4) Seminar, three hours. Final stages of thesis preparation for evaluation. Guidance provided by instructor on how to effectively present selected project. Requirements include industry marketplace reports, script analysis, pitching selected concept, weekly research to understand marketplace, accumulation and updating of data, and justification for potential buyers comprised of industry professionals. S/U or letter grading.


291B. Feature Film Marketing. (4) Lecture, three hours. Course 291A is not requisite to 291B. Examination of numerous groups that are responsible for specific marketing components and make up marketing departments. Distribution and in-theater marketing, trailers, publicity, promotions, research, and media relations. Discussion 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. Course 291B is not requisite to 291C. Industry exploration of philosophy, structure, and major players that make up entertainment industry, with emphasis on film distribution and exhibition. Through lectures, readings, and guest speakers, exploration of intertwined areas of production, marketing, business affairs, media, and impact of internation market on 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, executives from network and production companies, packaging agents, and studios responsible for developing and creating programming. 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 working on series and creating television shows. Designed to train writers who typically work in other 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, and distribution 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 finance and distribution of feature films. Topics include fundamentals of film financing, domestic distribution, international distribution, European coproduction, role of foreign sales agents and of bankers and completion bond companies. S/U or letter grading.

295A. 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.

295B. Advanced Film and Television Producing Workshop for Producers, Writers, and Directors. (4) Lecture, three hours. Course 295A is not requisite to 295B. Designed to help producers, as well as screenwriters and directors, focus on networking opportunities and to develop strategies to bring their feature and television projects to marketplace. Case studies of drafts of screenplays, dailies, etc. from current or recently produced projects provided. S/U or letter grading.

295C. Advanced Producing: Role of Successful Executive Producer. (4) Lecture, three hours. Exploration of role of executive producer in film and television. Focus on producer as a business executive, and face-to-face negotiations with writers, directors, actors, agents, managers, business managers, and lawyers. S/U or letter grading.

296A. Role of Talent Agencies. (4) Lecture, three hours. Examination of different forms of representation offered by agents, managers, business managers, and lawyers and detail of legal rights and responsibilities of each. Exercises require students to represent rights holders in series of potential projects. S/U or letter grading.

296B. Who Represents Me? (4) Lecture, three hours. Course 296A is not requisite to 296B. In-depth analysis of different forms of representation offered by agents, managers, business managers, and lawyers to examine not just story elements, but marketing assets inherent in pieces of material. S/U or letter grading.

296C. Digital Media Producing 3. (4) Lecture, six or 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Students budget and preproduce their projects by end of second term. S/U or letter grading.

297A. Digital Media Producing 1. (4) Seminar, three hours. Overview of changing world of storytelling through development of new technologies and new media. Examination of pilot, pitch of innovative, original, digital media concepts with interactive or participatory story elements for review and feedback by class, instructor, and guests. S/U or letter grading.


298A. Special Studies in Film and Television. (2 to 6) Seminar, three hours; fieldwork, three hours. Designed for graduate students. Seminar study of problems in film and television, organized on topic basis. 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. May be repeated once for credit. S/U grading.

400. Film Image Design Laboratory. (4) Lecture, three hours; laboratory, four hours. Continuation of study of cinematography with emphasis on lighting. Instructor meets individually with teams of director/cinematographer to prepare for shooting six-minute projects. Letter grading.

401. Film Analysis for Filmmakers. (4) Lecture/ screenings, five hours. Limited to graduate film and television students. Drawing heavily from array of historical examples, examination of many expressive strategies useful in creating of moving image art forms. Unifying theory and practice, presentation of approach to viewing great films of past that employ different representational techniques to tell original stories in present. Focus on strategic decision making in areas of writing, design, cinematography, editing, sound, and performance to enable filmmakers to discover their own personal style for telling stories in their own unique manner. S/U or letter grading.

402A-402B. Advanced Narrative Directing Workshop. (4 or 8–8) Limited to nine graduate film and television students. Production of 10- to 15-minute fiction film or project. Letter grading. 402A. Laboratory, six or 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Students budget and preproduce their projects by end of first term. 402B. Laboratory, 16 to 24 hours; fieldwork to be arranged. Requisite: course 402A. In second term students must complete photography on location and/or in studio.

402C. Advanced Narrative Directing Workshop. (4) Laboratory, four hours; fieldwork, to be arranged. Requisite courses 402A, 402B. Completion of postproduction on projects started in courses 402A and 402B. Letter grading.

C403A-C403B-C403C. Advanced Documentary Workshops. (4 to 8 each) (Formerly numbered 435A- 435B-435C.) Lecture/discussion/laboratory, 16 to 24 hours; fieldwork, to be arranged. Requisites: courses 409, 410A, 410B, 410C, 433. Limited to graduate film and television students. Production of advanced individual documentary film or video projects. Students conceptualize, research, write, shoot (on location), and edit projects to completion. May be repeated once for credit. Concurrent enrollment courses C186A-C186B-C186C. S/U or letter grading.

404. Emerging Techniques and Technologies in Cinematography. (4) Lecture, two hours; laboratory, two hours. Requisite: course 410B. Designed to keep students abreast of ever-changing tools and techniques of cinematography. Exploration of developing concepts and familiarization with emerging technology and equipment. Focus may change to reflect changes in current technology. May be repeated twice for credit. Letter grading.

404A-404B. Advanced Abstract/Experimental Media Workshops. (8–8) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410. Limited to 10 students per section. Production of 20-minute abstract or experimental film, video, or multimedia project. Students plan, design, and shoot their proj-
in first term and work as crew for each other in
rotation assignments. In second term students must
generate postproduction of their projects. S/U or letter grading.

404C. Advanced Abstract/Experimental Media Workshop (C453B). (3) Laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 404A, 404B. Completion of all stages of production and postproduction on projects started in courses 404A and 404B. Limited to unidentified projects that explore the complexity of process, emphasizing balance and collaboration essential to both directing and photography in its varied technical, production, and creative aspects. 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 the complexity of process, emphasizing balance and collaboration essential to both directing and photography in its varied technical, production, and creative aspects. Letter grading.

420. Digital Cinematography. (4) Lecture, three hours. Limited to and required of first-year MFA program students. Production workshop designed to give hands-on experience in all aspects of film production (both medium and full scale) through the production of short dramatic projects on sound stage and at exterior locations that explore the complexity of process, emphasizing balance and collaboration essential to both directing and photography in its varied technical, production, and creative aspects. Letter grading.

430. Screening Fundamentals. (2) Lecture, one hour. Corequisite for graduate students enrolled in course 431. Examination of screening 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 Screening. (4) Lecture, three hours. Limited to graduate film and television students. Introductory course in problems of film and television screening. S/U or letter grading.

432. Writing Short Screenplays. (4) Lecture, three hours. Limited to and required of first-year MFA program students. Development of short dramatic screenplays. Students read playwrights and develop problems in writing of original film and television screenplays. May be repeated for credit. Letter grading.

435. Advanced Writing for Short Film and Television Screenplays. (4) Discussion, three hours. Requisite: course 410C. Limited to graduate film and television students. Conception, development, and writing of dramatic film script to be produced as advanced film thesis project. Letter grading.

436. Advanced Storytelling Tools for Screenwriters: Study and Practice. (4) Lecture, three hours. Recommended requisite: course C430 or 431. Introduction 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 in 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.

437. 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 to adaptation. Students workshop their own screenplays adapted from preselected list of stories. Letter grading.


452B. Postproduction Sound. (2) Laboratory, three hours. Limited to Production MFA students. Technical and aesthetic aspects of postproduction sound recording, editing, and 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, demonstrations, and laboratory assignments, exploration of digital audio tools and procedures available 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 postproduction sound and to provide knowledge and tools necessary to complete postproduction of their projects. Exploration of many 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 editor, create sound design to enhance story points, discover design opportunities, and select right sound effects. How to edit dialogue, prep for Automatic Dialogue Replacement and Foley 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. Exploration of postproduction skills with emphasis of understanding of organization and operation of postproduction process. Students may also propose to edit significant scene given to them by instructor. Concurrently scheduled with course C454C. 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, immersion into 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 C158B. Letter grading.
486. Directed Individual Study: Preparation to Advance to Candidacy for MFA in Production. (2 to 12) 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. S/U or letter grading.

488A. Interactive Animation. (4 to 8) Lecture, six hours; laboratory, four to eight hours; other, to be arranged. Preparation: completed animated film. 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 complete 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. Planning and preparation of interactive activities in courses; planning of teaching session; 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 in department. Orientation and preparation of students who have responsibility to assist in teaching undergraduate courses in department; discussion of problems common to teaching experience. May not be applied toward MA, MFA, or PhD. May be repeated. S/U grading.

498. Professional Internship in Film and Television. (4, 8, or 12) Tutorial, to be arranged. Full- or part-time at studio or on professional project. Designed for MFA program advanced students. Internship at various film, television, or theater facilities accentuating creative contribution, organization, and work of professionals in various specialties. Open 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 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.

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.

599C. 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.
Required Lower-Division Courses (10 or 11 units): Environment 25 or Clusters M1CW, and one course from Community Health Sciences 48, Italian 42C, or Physiological Science 7.

Required Elective Courses (20 or 21 units): Four courses from Anthropology 133, Chinese 185, Civic Engagement 170SL, Community Health Sciences 130, 131, 132, English 112E, M118F, Food Studies 197, Italian 124, Physiological Science 167, Society and Genetics M132, 134, Urban Planning M165, and World Arts and Cultures C129.

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 the issues of major importance. P/NP grading.

27. Critical Thinking about Food and Science Publications. (5) Lecture, four hours. Development of critical thinking about stories behind conclusions from nutrition studies and food scientific literature. Exercises, discussions, reports, and readings designed to provide practices to become critical thinker in food science and literature. P/NP or letter grading.

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 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

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, with a focus on how literature, art, science writing, and visual culture address political dimensions of food and agriculture in specific contexts. P/NP or letter grading.

M170SL. Food Studies and Food Justice in Los Angeles. (4) (Same as Civic Engagement M170SL.) Seminar, three hours; fieldwork, two hours. Interdisciplinary service learning course that provides general understanding of the access and equity issues related to food chain in Los Angeles. Exploration of social justice issues facing residents of lower-income communities. Reading of research from multiple disciplines, including but not limited to public health, environmental justice, and public policy. Service-learning component includes meaningful work with off-campus community partners selected in advance by the 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.

197. Directed Research or Senior Project in Food Studies. (4) 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.

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 members responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

FOREIGN LITERATURE IN TRANSLATION

Course List

Afrikaans (Germanic Languages)
40. From Oppressed to Oppressor and Beyond: Literature in Afrikaans from Prepartheid 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)
  M113. 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

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
  M115. Chinese Immigrant Literature and Film

Classics (Classics)
  40W. Reading Greek Literature: Writing-Intensive
  41W. Reading Roman Literature: Writing-Intensive
  60. Fantastic Journey: Antiquity and Beyond
  137. Ancient Lives: Art of Biography
  140. Topics in History of Greek Literature
  141. Topics in History of Latin Literature
  142. Ancient Epic
  143A. Ancient Tragedy
  143B. Ancient Comedy
  144. Topical Studies in Ancient Culture
  M145A. Ancient Greek and Roman Philosophy
  M145B. Later Ancient Greek Philosophy
  M146A. Plato—Earlier Dialogues
  M146B. Plato—Later Dialogues
  M147. Aristotle
  150A. Female in Greek Literature and Culture
  150B. Female in Roman Literature and Culture
  162. Classical Myth in Literature
  163. Ovid and Consequences

Comparative Literature (Comparative Literature)
  All undergraduate courses

Czech (Slavic, East European, and Eurasian Languages and Cultures)
  155. Survey of Czech Literature from Middle Ages to Present

Dutch (Germanic Languages)
  10. Contemporary Dutch Society and Culture: Beyond Rembrandt, Cheese, and Wooden Shoes
  113. Modern Dutch and Flemish Literature in Translation

English (English)
  111A. Hebrew Bible in Translation
  111B. Christian Biblical Texts in Translation
  111C. Topics in Biblical Literature
  112A. Oral Tradition
  112B. Celtic Mythology
  112C. Survey of Medieval Celtic Literature
  112D. Celtic Folklore

French (French and Francophone Studies)
  112. Medieval Foundations of European Civilization
  M140. Women's Studies in French Literature
  160. Francophone Cultures in English
  161. French and Francophone Theater in Translation
  163. French and Francophone Short Story in Translation
  164. French and Francophone Novel in Translation
  166. French and Francophone Autobiography in Translation

German (Germanic Languages)
  50A-50B. Masterpieces of German Literature in Translation
  56. Figures Who Changed World
  57. Hollywood and Germany
  58. Knights and Ladies, Sex and Power at Medieval Court
  59. Holocaust in Film and Literature
  60W. War
  61A-61D. Modern Metropolis
  M70. Origin of Language
  102. War, Politics, Art
  103, 104. German Film in Cultural Context
  M105. Tristan, Isolde, and History of Heterosexuality
  109. Jewish Question and German Thought
  110. Special Topics in Modern Literature and Culture
  111. Thomas Mann, Heise, Boll, and Grass: German Nobel Prize Winners in English
  112. Feminist Issues in German Literature and Culture
  113. German Folklore
  114. Fairy Tales and Fantastic
  117. German Exile Culture in Los Angeles

Hungarian (Slavic, East European, and Eurasian Languages and Cultures)
  121. Survey of Hungarian Literature in Translation

Irish (Near Eastern Languages and Cultures)
  150A-150B. Survey of Persian Literature in English

Italian (Italian)
  42A-42B-42C. Italy through Ages in English
  46. Italian Cinema and Culture in English
  50A-50B. Masterpieces of Italian Literature in English
  102A-102B-102C. Italian Cultural Experience in English

Japanese (Asian Languages and Cultures)
  110. Dante in English
  140. Italian Novella from Boccaccio to Basile in Translation
  150. Modern Fiction in Translation
  151. Italy and Asia
  152. Italy between Europe and Africa
  M15B. Women, Gender, and Sexuality in Italian Culture
  230A-230B. Folk Tradition in Italian Literature
  260A. Alternative Perspectives in Italian Culture: Studies of Folk Tradition in Italian Literature
  260B. Women in Italian Culture
  260C. Studies in Italian Cinema

Korean (Asian Languages and Cultures)
  150. Korean Literature in Translation: Classical
  C151. Korean Literature in Translation: Modern
  154. Contemporary Korean Culture through Literature and Film

Polish (Slavic, East European, and Eurasian Languages and Cultures)
  152A-152B-152C. Survey of Polish Literature

Portuguese (Spanish and Portuguese)
  40A-40B. Portuguese, Brazilian, and African Literature in Translation
  46. Brazil and Portuguese-Speaking World

Russian (Slavic, East European, and Eurasian Languages and Cultures)
  126. Survey of Russian Drama
  M127. Women in Russian Literature
  128. Russian Science Fiction

Scandinavian (Scandinavian Section)
  40, 40W. Heroic Journey in Northern Myth, Legend, and Epic
  50, 50W. Introduction to Scandinavian Literatures and Cultures
  C131. Introduction to Viking Age
  C133A. Saga
  134. Scandinavian Mythology
  C137. Old Norse Literature and Society
  138. Vikings

Spanish (Spanish and Portuguese)
  C141A. Theory of Scandinavian Novel
  141B. Nordic Poetry
  141C. Short Story in Scandinavia
  142A. Introduction to Nordic Theater and Drama
  143A. Scandinavian Detective Fiction
  143C. Scandinavian Crime Literature
  CM144A. Voices of Women in Nordic Literature

145A. Henrik Ibsen
145B. Knut Hamsun

146A. August Strindberg
147A. Hans Christian Andersen
147B. Saren Kierkegaard
147C. Karen Blixen

148A. Halldór Laxness

152. Backgrounds of Scandinavian Literature
154. Romanticism
155. Modern Breakthrough
156. Scandinavian Literature of 20th Century
157. Contemporary Nordic Literature
161. Introduction to Nordic Cinema
C163A. Introduction to Danish Cinema
C163B. Introduction to Swedish Cinema
C163C. Introduction to Norwegian Cinema
C166A. Ingmar Bergman
C166C. Carl Dreyer

171. Introduction to Scandinavian Folklore
172A. Nordic Folk and Fairy Tales

Foreign Literature in Translation / 397

175. Modern Israeli Literature Made into Films

Korean (Asian Languages and Cultures)

150. Korean Literature in Translation: Classical
C151. Korean Literature in Translation: Modern
154. Contemporary Korean Culture through Literature and Film

152A-152B-152C. Survey of Polish Literature

126. Survey of Russian Drama

M127. Women in Russian Literature

128. Russian Science Fiction

C170. Russian Folklore

Scandinavian (Scandinavian Section)

40, 40W. Heroic Journey in Northern Myth, Legend, and Epic

50, 50W. Introduction to Scandinavian Literatures and Cultures

C131. Introduction to Viking Age
C133A. Saga

134. Scandinavian Mythology

C137. Old Norse Literature and Society

138. Vikings

C141A. Theory of Scandinavian Novel

141B. Nordic Poetry

141C. Short Story in Scandinavia

142A. Introduction to Nordic Theater and Drama

143A. Scandinavian Detective Fiction

143C. Scandinavian Crime Literature

CM144A. Voices of Women in Nordic Literature

145A. Henrik Ibsen

145B. Knut Hamsun

146A. August Strindberg

147A. Hans Christian Andersen

147B. Saren Kierkegaard

147C. Karen Blixen

148A. Halldór Laxness

152. Backgrounds of Scandinavian Literature

154. Romanticism

155. Modern Breakthrough

156. Scandinavian Literature of 20th Century

157. Contemporary Nordic Literature

161. Introduction to Nordic Cinema

C163A. Introduction to Danish Cinema

C163B. Introduction to Swedish Cinema

C163C. Introduction to Norwegian Cinema

C166A. Ingmar Bergman

C166C. Carl Dreyer

171. Introduction to Scandinavian Folklore

172A. Nordic Folk and Fairy Tales
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 program offers both MA and PhD degrees and comprises training in the various fields of French and Francophone culture, literature, and thought, as well as in literary criticism, analysis, and theory. A number of courses in linguistics and stylistics are also offered.

Undergraduate Study

If students have taken French elsewhere, they must take a placement test administered by the department. Depending on the results of the placement test or with recommendation of an instructor, they may be permitted to enroll in a course of study at a more advanced level.

Requisites to all upper-division courses taken in partial fulfillment of the French majors are French 6, 12, or equivalent. Courses 105 through 109 are not sequential and may be taken in any order, provided the requisites for each course are fulfilled.

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in French grammar and/or composition.

The French major is a designated capstone major. Students are required to complete a capstone seminar that is thematically devised to reflect current trends in the discipline. Through the capstone experience, students work closely with a faculty member on a focused topic of research. They engage in presentations and weekly discussions and write a research paper demonstrating language proficiency, critical and creative thinking, analytical skills, and a cultural perspective.

French BA

Capstone Major

Learning Outcomes

The French major has the following learning outcomes:

- Demonstrated written and oral mastery of the French language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate primary sources
- Conception and execution of a project that identifies and engages with a specialized topic
- Acquisition of working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

Preparation for the Major

Required: French 1, 2, 3, 4, 5, 6, 12, or equivalent. Students normally take course 6 before undertaking course 12. Students who receive a grade of A in course 5 may enroll in course 12 concurrently with course 6, with consent of the instructor.

Transfer Students

Transfer applicants to the French major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of French and one French literature course.

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

The Major

Two plans are offered by the department:

Plan I: French/Francophone Studies in Literature and Culture

Required: French 100, 101, two courses from 114A, 114B, and 114C, one senior capstone seminar (191B), and six 4-unit courses in French and Francophone literature and/or culture selected from upper-division offerings in the department in language, civilization, literature, or the arts. One upper-division elective course from outside the department may be substituted in the major program with consent of the undergraduate adviser. Each course must be taken for a letter grade.

Plan II: Interdisciplinary French/Francophone Studies

Required: French 100, 101, one course from 114A, 114B, or 114C, one senior capstone seminar (191B), four upper-division elective courses in French and Francophone studies, and three upper-division elective courses in fields relevant to French and Francophone studies to be selected from outside the department in consultation with the undergraduate adviser. Each course must be taken for a letter grade.
Plan II, with emphasis on French and Francophone culture, is a core program in French allowing for individual selection of relevant courses in related fields such as gender studies, humanities, linguistics, and social sciences. It is strongly advised that students who intend to pursue advanced degrees begin preparation for the language requirements at the undergraduate level.

If students’ knowledge of French exceeds the preparation usually received in courses preparing for the major and if they demonstrate the requisite attainment in French 100 or 101, they may substitute for those courses in grammar and composition an equivalent number of upper-division courses in the French and Francophone Studies Department in consultation with an adviser. All prospective French majors who are native or quasi-native speakers of French must see the undergraduate adviser before beginning upper-division work in the major.

All majors must complete a minimum of nine courses of appropriate upper-division work in the UCLA French and Francophone Studies Department. Freshmen and sophomores may take up to two courses taught in English, selected from French 164 through 167, in fulfillment of major requirements (if taken in the junior or senior year, these courses count as electives). A maximum of 9 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, 110, 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 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 (GPA). 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 take course 198 where they receive regular personal supervision from a faculty member in the research, methodology, and writing of their approximately 20- to 25-page honors thesis (honors projects and the honors thesis are not to be confused). Students may begin the honors program toward the end of their junior year or during their senior year. Students are allowed to enroll in graduate courses 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. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Graduate Degrees

The Department of French and Francophone Studies offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in French and Francophone Studies.

French

Lower-Division Courses

1. Elementary French. (4) Lecture, five hours. P/NP or letter grading.
   2. Elementary French. (4) Lecture, five hours. Enforced requisite: course 1 with grade of C– or better. P/NP or letter grading.
   3. Elementary French. (4) Lecture, five hours. Enforced requisite: course 2 with grade of C– or better. P/NP or letter grading.
   8. Intensive First-Year French. (12) Lecture, 15 hours. All-in-French intensive language program equivalent to first year of college French and designed to develop basic language skills. Additional work in language and media laboratory required. Offered in summer only. P/NP or letter grading.
   9. Intensive Second-Year French. (8) Lecture, 10 hours; media laboratory, three hours. Enforced requisite: course 7. Intensive course equivalent to first two terms of intermediate French and designed to improve proficiency in reading, writing, and speaking. Offered in summer only. P/NP or letter grading.
   10A-10D. French Conversation. (2 each) Discussion, three hours; discussion, one hour. Enforced requisite: course 3 with grade of B or better. P/NP or letter grading.
   14. Introduction to French Culture and Civilization in English. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 14W. Study of contemporary French institutions and issues in cultural, political, and socioeconomic realms. P/NP or letter grading.
   14W. Introduction to French Culture and Civilization in English. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 14W. Study of contemporary French institutions and issues in cultural, political, and socioeconomic realms. Satisfies Writing II requirement. Letter grading.
   19. Fiat Lux Freshman Seminars. (1 Seminar), one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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41. French Cinema and Culture. (5) Lecture/screenings, five hours; discussion, one hour. Introduction to French culture and literature through study of films of cultural and literary significance. P/NP or letter grading.
   50. French and Francophone Novel. (5) Lecture, three hours; discussion, one hour. Study of literary masterpieces produced by writers from France and Francophone world (Canada, Africa, Caribbean, etc.) from 17th to early 21st century, and the different perspectives. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.
   89. Honors Seminars. (1 Seminar), three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. 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

   104. Theory and Correction of Diction. (4) Lecture, three hours. Enforced requisite: course 6. Study of in- dividual pronunciation problems, sentence stress (including rhythm, intonation, and phrasing), and of learning sound–spelling correspondences to help sight read accurately. Thorough study of sym- bols of International Phonetic Alphabet (IPA) to give students tools to work on pronunciation systematically. Standard French serves as model, with examination of pronunciation changes and various dialects that are spoken in Francophone world to improve lis- tening comprehension and pronunciation. P/NP or letter grading.
   114A. Medieval and Renaissance Literature. (5) Lecture, three hours. Requisite: course 12. Masterpieces of medieval and Renaissance literature, including examples of epic (La Chanson de Roland), romance (Chretien de Troyes’ Yvain), and Renaissance prose and poetry (including Marot, Du Bellay, Ronsard, Rab- beau, Marguerite de Navarre, and Montaigne). P/NP or letter grading.
   114B. 17th and 18th Centuries. (5) Lecture, three hours. Requisite: course 12. Study of selections from major works of classicism and Enlightenment, in- cluding those by Racine, Pascal, La Fayette, La Fontaine, Laclos, Diderot, Voltaire, and Rousseau. P/NP or letter grading.
   115. Issues in Medieval French Culture and Litera- ture. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of medieval French culture and literature, including lyric poetry and narra- tive romance, history of medieval warfare, comedy, and class structures. May be repeated for credit with topic change. P/NP or letter grading.
   116. Studies in Renaissance French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of Renaissance French literature, including la Pèlerie and 16th-century poetry, linguistic and poetic revolution, novel and early prose, and late French humanism. May be repeated for credit with topic change. P/NP or letter grading.
   117. Studies in 17th-Century French Culture and Literature. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of 17th-cen- tury French culture and literature, including theater, philosophers, moralists, novelists, and cultural, polit- ical, social, religious, and courtly aspects. May be re- peated for credit with topic change. P/NP or letter grading.
   118. Studies in 18th-Century French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of 18th-century French culture and literature, including satire, novel, theater, philosophers, and theore-tical writings. May be repeated for credit with topic change. P/NP or letter grading.
   120. Studies in 20th-Century French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of 20th-century French culture and literature, including early 20th-century writers, surrealism, litera-

130. Contemporary French and Francophone Cultures. (4) Lecture, three hours. Enforced requisite: course 12 or 100. Taught in French. Study of contemporary Francophone world (Africa, Asia, Caribbean, Quebec), government, institutions, and cultural, economic, social, and political issues. May be repeated for credit with topic change. 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). P/NP or letter grading.


137. French and Francophone Intellectual History. (4) Lecture, three hours. Enforced requisite: course 12 or 100. Taught in French. Exploration of themes that address particular problem of French literature, civilization, or ideas. May be repeated for credit with topic change. P/NP or letter grading.

138. Contemporary French Theory. (4) Lecture, three hours. Taught in French. Study of French theorists (Barthes, Baudrillard, Cixous, Derrida, Foucault, Irigaray) and major concepts in contemporary French thought, with attention to influence on and application to literary and nonliterary texts. May be repeated for credit with topic change. P/NP or letter grading.

139. Paris: Study of French Capital. (4) Lecture, three hours. Taught in French. Exploration of topics that address particular problem of French literature, civilization, or ideas. May be repeated for credit with topic change. P/NP or letter grading.

140. Women's Studies in French Literature. (4) Same as Gender Studies M140L. Lecture, three hours. Exploration of selected aspect of situation of women in French literature as author, character, symbol, or language. 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.

142. Francophone Cinema. (4) Lecture, three hours. Study of Francophone (Africa, Caribbean, postcolonial communities in France) cinema and cinematographers in generic, thematic, and sociocultural aspects. May be repeated for credit with topic change. P/NP or letter grading.

150. French and Francophone Intellectual History. (4) Lecture, three hours. Study of French intellectual history and the impact of writers, playwrights, and novelists from Caribbean, North Africa, Quebec, and sub-Saharan Africa, immigrant narratives, and colonialism and postcolonial studies. 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 literature. 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.


169. Paris: Study of French Capital in Translation. (4) Lecture, three hours. Readings of Middle Ages across issues such as gender, class, race, religion, sexuality, love, and death. Explores each of these key themes in Middle Ages and look at Middle Ages as a screen for interrogating, contesting, and resolving contemporary debates on gender, class, race, and religion. Contrast of medieval and modern around 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. May be repeated for credit with consent of major adviser. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to seniors. Designed as adjunct to upper-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. P/NP or letter grading.

201. Techniques of Literary Analysis. (4) Lecture, three hours. Practice in close analysis of literary texts, including explanation of texts. S/U or letter grading.

202. Cultural Studies. (4) Lecture, three hours. Introduces to the theoretical approaches to popular and mass culture, and to postcolonial and Francophone cultures. Topics include emerging disciplines and theories such as sociology and cultural studies, feminism, psychoanalysis, anthropology, philosophy, and feminism, that may include texts by Althusser, Barthes, Deleuze, Derrida, Foucault, Genette, Irigaray, Kristeva, Lacan, Lyotard, and others. S/U or letter grading.


204. Studies in Autobiography. (4) Lecture, three hours. Introduction to theories of autobiography and subjectivity, and to genre of autobiography in literature and film across cultures. Topics include early modern approaches to self-writing, Rousseau and emergence of modern self, women's autobiography in France and Francophone world. May be repeated for credit with consent of major adviser. S/U or letter 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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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 designating these courses Power, Knowledge, and Bodies, the department identifies three primary areas in which feminist and queer inquiry has been concentrated over time, enabling students to trace grounding concepts, key controversies, and the emergence of new theoretical paradigms.

The department has long enjoyed recognition for its strengths in areas including women's history, feminist science studies, and gender and the law. Over the past several years, it has become a leading program for interdisciplinary intersectional feminist scholarship on gender, sexuality, race, class, and nationality and is building a strong reputation in the areas of transnational literary and media studies, post-colonial feminist studies, studies of settler colonialism, feminist science studies, feminist policy studies, queer of color critique, and women of color feminism.

**Undergraduate Study**

The Gender Studies major is a designated capstone major. Students are required to complete a senior seminar in which they conduct original research while studying readings that consider how disciplinary and interdisciplinary research has been conducted and critiqued. Through their senior seminar work, students produce a significant work that may include an original research paper, a media project, or an in-depth literature review. They are expected to demonstrate working knowledge of the field of gender studies; understand key theoretical approaches in the study of women, gender, and sexuality; have ability to construct well-written analytic essays and present their work orally; and conduct a research project that involves the consultation of scholarly literature and presentation of evidence to support an argument.

**Gender Studies BA**

**Capstone Major**

The major in Gender Studies may be taken alone or in conjunction with another Letters and Science major. In the case of a double major, no more than five courses may be applied toward both majors.

**Learning Outcomes**

The Gender Studies major has the following learning outcomes:
• Demonstrated working knowledge of the field of gender studies
• Understanding of key theoretical approaches in the study of women, gender, and sexuality
• Demonstrated ability to construct well-written analytic essays and give an oral presentation
• Conduct a research project that involves the consultation of scholarly literatures and presentation of evidence to support an argument

Admission
To be admitted to the major, students must have completed Gender Studies 10, be in good standing, and formally register with the department. They are encouraged to declare their major as early as possible and to discuss their proposed course of study with the undergraduate adviser.

Students are encouraged to draw on diverse UCLA resources in creating their program of study. They may pursue traditional and/or innovative subjects in fields ranging from the humanities and fine arts to the social and life sciences. In addition to courses on the gender studies approved list, students may petition to have diverse courses accepted, including courses outside the College of Letters and Science, independent studies, or field study courses.

Each course applied toward the major must be taken for a letter grade, and students must have a grade-point average of 2.0 or better in gender studies courses to receive credit for completing the program. Courses in which they receive grades of C- or lower may not be applied toward the required courses in the major.

Preparation for the Major
Required: Gender Studies 10. Students must also complete departmental lower-division requisites, as applicable, for upper-division gender studies courses.

Transfer Students
Transfer applicants to the Gender Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one multidisciplinary gender studies course and departmental lower-division requisite courses.

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

The Major
The major is designed to (1) impart core concepts in theory and critical analysis, research design, and methods and (2) provide students with exposure to a range of feminist and queer scholarship across disciplines. To achieve these goals, the major is divided into three categories.

Required: At least 11 upper-division courses (minimum of 4 units each) as follows: (1) three core courses—Gender Studies 102, 103, 104, (2) seven elective courses; one upper-division tutorial (minimum of 4 units) selected from course 195, 197, or 199 may be applied toward the elective requirement (this limit does not apply to course 198A or 198B), and (3) course 187 (capstone seminar).

Honors Program
The honors program is open to advanced junior and senior Gender Studies majors with a 3.6 grade-point average in gender studies courses and a minimum 3.4 overall GPA who have no outstanding Incomplete grades, and to majors who demonstrate ability to do honors work by submitting a paper to the department chair for approval.

To qualify for honors at graduation, students must successfully complete three successive terms of honors research (courses 198A, 198B, 198C) with their faculty sponsor and receive a grade of B+ or better on their research paper/project. Course 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. (5) Lecture, three hours; discussion, one hour. Introduction to key concepts and study 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. Required: 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 relationship 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 requirement: 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 political, social, and economic subordination? How do feminist theorists address subject of power? How do empire, colonialism, liberalism, nationalism, and globalization produce distinctive forms of gendered violence, gen-
dered knowledge, and gendered subjectivities? How are gender and sexuality produced and regulated by law, nation, and economy? 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 and locations? How have meanings of terms sex and gender varied across time and place? How has gendered body been represented in different visual cultures? How have embodied identities been produced in different historical and geographic contexts? How is relationship between embodiment and desire? P/NP or letter grading.

104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Chicana and Chicano Studies M106B, Gerontology M104C, and Social Welfare M104C.) Lecture, three hours. Enforced requisite: English Composition 3. Exploration of diversity of aging populations and variability in aging processes. 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, four hours. Enforced requisite: and writing. May be repeated for credit with the topic or instructor change. P/NP or letter grading.


105D. 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 problems 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.

106. Imaginary Women. (5) (Same as Honors College M106.) Seminar for juniors/seniors. Study of four female cultural archetypes—abscinding wife/mother, infanticide mother, intellectual woman, and warrior woman—as they appear in their classical and modern manifestations in European and American cultures. P/NP or letter grading.

107A. 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, socially conscious writing. May be repeated for credit with topic or instructor change. P/NP or letter grading.

107B. Studies in Gender and Sexuality. (5) (Same as English M107B, Transgender, and Queer Studies M107B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of gender and sexuality through lens of gender and sexuality. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic and include other intersectional vectors—class, 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. Requisites: course 10. Factual information and theoretical analyses regarding various forms of violence against women and girls in their homes, workplace, and communities through critical examination of social structures and social science research. Letter grading.

109. Women in Jazz. (4) (Same as African American Studies M109 and Ethnicity M109.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: and writing. Survey of queer literature from beginning to circa 1850. Works by such writers as Holleran, Leslie Feinberg, Achy Obejas, Essex Hemphill, Audre Lorde, Cheryl Dunye, and Alison Be...
122. Masculinities. (4) Lecture, three hours. Enforced requisite: course 10. Masculinity as theorized by feminists and shaped by race, class, age, and nation. Topics include masculinity as normative, masculinity as raced, gender and sexuality, race and masculinity, masculinity and body, childhood and adolescent socialization, sport, male violence, homophobia, black masculinity, globalization and masculinity, and men's movements in 1970s and beyond. Special emphasis on gender theories and resource approaches and methodologies. P/NP or letter grading.

123. Gender, Race, and Class in Latin American Literatures, 1550 to 1950. (4) Seminar, three hours. Requisite: course 10, written English, and another language. Successful completion of the Latin American literature sequence (105-106) or consent of instructor. Analysis in depth of various ways women provide genealogy, examination of how cultural production sustains or interrogates categories used to construct social, political, and cultural hierarchies. Topics include the role of women and feminism in the historical development of Latin American nations, and the participation of women in political and social movements. A study of women as recipients of healthcare. P/NP or letter grading.

M124. Sex, Race, and Difference in Transnational Film. (4) Lecture, four hours. Discussion, three hours; discussion, one hour. Drawing on feminist media studies, students will learn to analyze representation, recurring and specific representations of sexual desire and embodiment; immigration and racial difference; and criminalization of racial difference. P/NP or letter grading.

125. Comparative Literature of Women's Health. (4) Lecture/discussion, three hours. Requisite: course 10. Examination in depth of various ways women provide healthcare in both paid and unpaid capacities and of political, economic, and social factors affecting women as recipients of healthcare. P/NP or letter grading.

126. Feminist and Queer Theory. (5) Same as English M126 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M126.) Lecture, four hours; discussion, one hour. Drawing on feminist media studies, students will learn to analyze representation, recurring and specific representations of sexual desire and embodiment; immigration and racial difference; and criminalization of racial difference. P/NP or letter grading.

M127. Women in Russian Literature. (4) (Same as Russian M127.) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Introduction to alternative tradition of women's writings in Russia and Soviet Union. Emphasis on images of women expressed in this tradition as compared with those found in works of contemporary male writers. P/NP or letter grading.


CM131A. Women in the Caribbean. (4) Seminar, three hours. Requisite: course 10. Exploration of ways in which gender discourses have been central to making of Caribbean history and to some most enduring historical, political, economic, and social formations, gender and identity. Some attention to process of manuscript preparation, public reading, and publication. Letter grading.

CM133. History of Prostitution. (4) Lecture, four hours; discussion, one hour. Exploration of complicated ways in which gender, race, class, sexuality, and national identity intersect in different Caribbean contexts. P/NP or letter grading.

130. Women of Color in the U.S. (4) Lecture/discussion, three hours. Enforced requisite: course 10 or Chicana and Chicano Studies M131A. Exploration of experiences of African American, Asian American, Chicana, and Native American women in order to assess intersections of race, ethnicity, class, and gender. Comparative and/or historical and/or theoretical perspectives on racism and its relation to feminism as defined by women of color. P/NP or letter grading.


CM133. Chicana Lesbian Literature. (4) Same as Chicana and Chicano Studies M133 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M133.) Lecture, four hours. Exploration of intersections of race, gender, identity, and desire in Chicanas' fiction and poetry. Featurin

CM134. Women's Literature of Women's Health. (4) Same as History M133A-M133B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Lectures and readings in English. History of prostitution from ancient times to present. Topics include brothel, prostitution and pimping; stigmatization and social construction of prostitution; collapse and reconstitutions; gender violence, prison spending, and privatization, spatial transformations, gender, race, class, and sexual orientation and production and legitimation of scientific knowledge. Applications of theoretical critiques to research design, practice, and interpretation. Letter grading.

CM135C. Bilingual Writing Workshop. (4) Same as Chicana and Chicano Studies CM135S.) Seminar, four hours; discussion, one hour. Designed for seniors. Enforced requisite required; access to course webpage mandatory; need not be bilingual to enroll. Technical instruction, analysis, and theoretical discussion of bilingual creative writing processes through gender. Bilingualism as both politics and aesthetics to be central theme. Discussion and analysis of Chicana/Chicana and Latina/Latina short fiction and poetry. Weekly writing assignments. Emphasis on narrative techniques such as characterization, plot, conflict, setting, point of view, and dialogue, and magical realism as prevailing baroque/Latinesque style. Some attention to process of manuscript preparation, public reading, and publication. Letter grading.

CM136. Music and Gender. (5) Same as Musicology M136.) Lecture, four hours; discussion, one hour. Analysis of gender and sexual representation and textual representations of gender, body, and sexuality by both male and female musicians; contributions of women to Western art and popular music; methods in feminist and gay/lesbian theory and criticism. Letter grading.

CM137E. Work Behavior of Women and Men. (4) (Same as Psychology M137E.) Lecture, two and one half hours. Requisite: course 10 or Psychology 10. Designated for seniors. Evaluation, discrimination and evaluation bias, job satisfaction, and interdependence of work and family roles. P/NP or letter grading.

138. Gender and Popular Culture. (5) Lecture, three hours; screenings, two hours. Limited to juniors/seniors. Conceptual tools and critical skills necessary to understand and interpret representations 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.


M140. Women's Studies in French Literature. (4) (Same as French M140b.) Lecture, three hours. Exploration of selected aspect of situation of women in French literature as author, character, symbol, etc. P/NP or letter grading.

142. Feminism, Gender, and Punishment. (4) Seminar, three hours. Enforced requisite: course 10. Examination of what crisis scholars have called prison industrial complex. U.S. has largest prison population in world. How and why this? Who is imprisoned? What historical conditions and ideologies gave rise to this massive expansion in prisoner population? Does prison function as regime? How have politicians used imprisonment as response to social problems like national geopolitics and social disorders? How is current crisis analogous to or distinct from regimes of racialized punishment in prior historical moments? How do prisons change? What are the implications for reducing U.S. prison population? Why do some activists argue for reform and others for abolition? Examination of key topics, including policing and racial profiling, black feminism, carceral states and cultural production, gender violence, prison spending, and political imprisonment. P/NP or letter grading.
ration 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 of process of accelerated globalization, feminization of labor and migration, environmental degradation, questions of diaspora, sexuality, and cultural displacement, as well as growing global militarization. Problems and issues created by globalization and cultural, social, and political responses envisioned by transnational organizing. P/NP or letter grading.

M147D. History of Women in U.S., 1860 to 1980. (4) Four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in U.S. history of advancement of civil rights, 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 women's lives. Offered in summer only. P/NP or letter grading.

M147F. 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. through themes from diverse periods of rebellion, 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 women's lives. Offered in summer only. P/NP or letter grading.

M157. Chicana Historiography. (4) (Same as Chicana and Chicano Studies M158 and History M151D.) Lecture, four hours. Examination of Chicana historiography, looking closely at how practice of writing of history has placed Chicanas into particular narratives. Using Chicana feminist approaches to study of history, revisiting of specific historical periods and movements, as Spanish Conquest, Mexican Revolution, and Chicano Movement to excavate untold stories about women's participation in and contribution to making of Chicanas and Chicano history. P/NP or letter grading.

M158. Women, Gender, and Sexuality in Italian Culture. (4) (Same as Italian M158.) Lecture, three hours; discussion, one hour. Analysis of gender roles, images, femininity, masculinity, 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 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.

M159. Pornography and Evolution. (4) (Same as Communication M159.) Lecture, three hours. Discussion 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.

M160. Sporting Bodies. (4) Lecture, three hours. Recommended requisite: course 10. From Don Imus’ 2000 “n-word”/“n-word-head hot” comments about transgender athletes or athletes with prosth- etics; from covers of magazines to violence in Dodge’s Stadium parking lot; footballers not standing during national anthem; and sports teams rating women’s teams in terms of sexual positions, unionization of athletes—discourses of sport draw heavily upon extant ideologies of race, gender, sexual- ity, and class. Introduction of cross-cultural analysis of social categories and how they are represented and reproduced in various 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, full access to the opportunities to compete as athletes. Overview of some major topics of discussion concerning intersections of athletic competition and disability: issues of genotype and phenotype, and analysis of governmental policies and athletic organizations in the workplace. Letter grading.

M154T. Women’s Voices: Their Critique of Anthropology of Japan. (4) (Formerly numbered M155.) (Same as Anthropology M154T.) Lecture, three hours. Preparation: introductory sociocultural anthropology course. The anthropology of Japan has long viewed Japan as a homogenous whole. Reconsideration of diversity and contradiction in it by listening to voices of Japanese women in various historical contexts. P/NP or letter grading.
M163. Gender and Work. (4) (Same as Sociology M183.) Lecture, three hours. Requisite: 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 emphasis on both political and life cycle. Topics include social construction of gender and population, reproductive issues, politicization of motherhood, biological, androgyny, 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 forms of violence done on women not only in and of themselves but in light of larger systems of oppression, with focus on Filipino, Vietnamese, Singaporean, and South Asian cultures. Letter grading.

M165. Psychology of Gender. (4) (Same as Psychology M165.) Lecture, four hours. Emphasis on both psychological and sociocultural causes of gender differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

M167. Gender and Social Psychology. (4) (Same as Psychology M167.) Lecture, three hours; discussion, one hour. Theories of gender differences between men and women. Topics include socialization, differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

M168. Participation in Political Science. (4) (Same as Political Science M168.) Lecture, two hours and one half hours. Enforced corequisite: course CM178L. Letter grading.

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. Emphasis on psychological, political, and economic forces which impact on interpersonal relationships of Afro-American women as members of larger groups and as individuals; biological 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 (when scheduled). Designed for juniors/seasons. Japanese women in Japanese and world history through state documents, autobiographical voices, contemporary television, and other varying historical sources, including topics such as women and war. Letter grading.

M174. Sociology of Family. (4) (Same as Sociology M174.) Lecture, three hours; discussion, one hour. Theories of family, family life cycle. Topics include family structure, and functions, including historical changes, variant family patterns, family as institution, and influence of contemporary society on family. P/NP or letter grading.

M175. Women and Cities. (4) (Same as Urban Planning M175.) Lecture, three hours. Limited to juniors/seniors. Examination of relationship between women and cities: (1) how cities have affected women’s opportunities for economic and social equality, (2) women’s contributions to development of U.S. cities, and (3) contemporary strategies and efforts to create urban environments that reflect women’s needs and interests. P/NP or letter grading.

CM176. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM176.) Seminar, three hours. Corequisite: course CM178L. Use of range of pedagogical approaches to theory and practice of critical media literacy that necessarily involves understanding of new technologies and media forms. Study of both theory and practice of media production and 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 Education CM178L.) Lecture, two hours; discussion, one hour. Hands-on production experience as integral component of course CM178L. Concurrently scheduled with course CM278L. Letter grading.

M180B. Historical Perspectives on Gender and Science. (4) (Same as History M180B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical cases illustrating how gender 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.

185. Special Topics in Gender Studies. (4) Lecture, three hours. Preparation: one prior gender studies course. Designed for juniors/seniors. Specialized or advanced study in one area within gender studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

M186. Voices of Women in Nordic Literature. (4) (Same as Scandinavian CM144A.) Seminar, three hours. Requisite: Scandinavian 105B or 106B or 107B. Knowledge of Norwegian, Swedish, or Icelandic languages is not required for nonmajors. Readings and discussion of 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; 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 preceding 1000 B.C.E. and asks: when did gender appear? How and why did patriarchy develop? Topics include evolution of women’s bodies, appearance of gender; women’s contribution to Neolithic revolution, significance of Goddess arts, creation myths, and women and sexuality in different religions. Consideration of effects of European conquest on Mesoamerican women, women’s power in middle ages, gender and indicators of wealth, and first manifestations of feminist consciousness in second half. Objects or texts created by women examined or read throughout. P/NP or letter grading.

M186B. Global Feminism, 1850 to Present. (4) (Same as History M186B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to movements for women’s rights (educational, political, economic, sexual, and reproductive) around world and over one and 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 senior/senior. Gender Studies majors or minors. In-depth study of major theme in feminist research. Themes vary by instructor and term. Students pursue independent research related to coursework. Obtain guidance from instructor, then share and critique other student works in progress. Letter grading.

189. Advanced Honors Seminars. (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.

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. 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. (8) (Same as English M191D and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M191D.) 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.

M191E. Topics in Gender and Sexuality. (5) (Same as English M191E and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M191E.) 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.

195. Community or Corporate Internships in Gender Studies. (2 or 4) 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 include gender analysis or be focused on some aspect of gender studies. Students meet on regular basis with instructor, provide periodic reports on their experience on-site, and submit final report. Must be taken for 2 letter-graded units. Gender Studies Major or minor. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.
201. Introduction to Interdisciplinary Methods in Gender Studies. (4) Seminar, three hours. Presentation by faculty members of approaches to interdisciplinary study and discussion of their own research. Demonstration of methods, particularly of interdisciplinary sort, to introduce students to wide range of faculty research and to incorporate questions of ethics. Focus on interdisciplinary gender research that intervenes in knowledge production. Particular issues include approaches to interdisciplinary methods of research, introduction to feminist intersectional and queer theory, and the role of reflexivity and positionality in research and writing, and incorporating ethics into research design, conduct, and teaching. May be repeated once for credit with instructor change. Letter grading.

202. Key Theories and Concepts in Gender Studies. (4) Lecture/discussion, three hours. Relationship of debates in field to key intellectual and social movements (such as Marxism, poststructuralism, critical race studies, queer theory) and their contributions to feminist critiques and contributed to development of new theoretical perspectives. Examination of key concepts and debates in gender studies, and identification of debates that have generated key analytical concepts in feminist analysis and gender studies. 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 interdisciplinarity to introduce students to different theoretical frameworks in feminist methods and changing boundaries of field over time. Exploration of critical tools to utilize and interrogate existing methodologies. Issues include exam- ination of how feminisms have shaped and been shaped by processes of knowledge-production within and across disciplinary boundaries, cultures, and par- adigms, and importance of intersectional, standpoint, and feminist theories and tools as responses to issues of power, domination, oppression, and other loci of identities and difference. May be re- peated 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 other coursework is complete; primarily geared toward proposal writing for dissertations and outside grants. Process of constructing dissertation pro- posals by providing structured process with incre- mental steps, in addition to advanced research pro- jects. Professional development for students as they prepare to enter academia or other professions. Help in preparation for final grant-writing season, exploration of alternative grant writing methods, and strategies to assist in teaching, and analysis of various job markets. May be repeated once for credit with in- structor change. Letter grading.

205. Subfields in Gender Studies. (4) Seminar, three hours. Departmental topics course that offers in-depth aspects of field. Limits of investigation set by individual instructor. S/U or letter grading.

210. Topics in Women and Public Policy. (4) Lecture, four hours. Departmental topics course that offers in-depth aspects of field. Limits of investigation set by individual instructor. S/U or letter grading.

220. Cultural Studies in Gender, Race, and Sexual- ity. (4) Seminar, three hours. Designed for graduate students. Multidisciplinary studies on aspects of sexual orientation, queer and trans- gender theory, interdisciplinary research on minority sexualities, and social construction/deconstruction of gender. May be repeated for credit with topic or in- structor change. Letter grading.

221. Topics in Study of Sexuality and Gender. (4) Seminar, three to four hours. Designed for graduate students. Multidisciplinary studies on aspects of gender orientation, queer and transgender theory, interdisciplinary research on minority sexualities, and social construction/deconstruction of gender. May be repeated for credit with topic or in- structor change. Letter grading.

222. Chicana Feminism. (4) Same as Chicana and Chicano Studies CM214.) Lecture, four hours. Enforced requisite: course 10 or Chicana and Chi- cano Studies 10A. Examination of theories and prac- tices of women who identify as Chicana feminist. Analysis of writings of Chicanas who do not identify as feminist but whose practices attend to gender in- equalities faced by Chicanas both within Chicana/Chi- cano community and dominant society. Attention to Anglo-European and Third World women. Concur- rently scheduled with course CM132A. S/U or letter grading.

228. Feminist Theory. (4) (Same as Sociology M238.) Seminar, three hours. Designed for graduate students. Analysis of current American feminist theory relevant to sociologists. Exploration of critiques of second wave feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent “antifeminist” feminists. Discussion of directions for future feminist sociology. Letter grading.


252. Selected Topics in Sociology of Gender. (4) (Same as Sociology M252.) Lecture, two hours; dis- cussion, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.

253A. Seminar: Current Problems in Compara- tive Education. (4) (Same as Education M253A.) Seminar, four hours. Examination of some of most in- fluential critical theorists, including Marx, Nietzsche, Freud, Marcuse, Foucault, Fanon, and de Beauvoir and their contributions to critique of contemporary economy, society, and politics. S/U or letter grading.

255. 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.

259A-M259B. History of Women. (4) (Same as History M259A-M259B.) Seminar, three hours. Course M259A is requisite to M259B. History of women’s so- cial and political issues seen in U.S. and comparative context. In Progress (M259A) and letter (M259B) grading.

261. Gender and Music in Cross-Cultural Per- spective. (4) (Same as Ethnomusicology M261.) Seminar, three hours. Designed to foster in-depth un- derstanding of gender in study of music as culture. Topics range from ethnography of gender and sexual- ity, (de)coding of messages of resistance, and gender representation to gendered politics via mu- sical production. S/U or letter grading.

263. Gender Systems. (4) (Formerly numbered M263P) (Same as Anthropology M243.) Seminar, three hours. Current theoretical developments in un- derstanding gender systems cross-culturally, with emphasis on relationship between gender, family, economy, ideological systems, and social inequality. Selection of ethnographic cases from recent litera- ture. S/U or letter grading.

266. Feminist Theory and Social Sciences Re- search. (4) (Same as Education M266.) Lecture, four hours. Examination of how diverse feminist social the- ories 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.


278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Educa- tion CM278.) Seminar, three hours. Corequisite: course CM278L. Use of range of pedagogical ap- proaches to theory and practice of critical media lit- eracy that necessarily involves understanding of new technologies and media forms. Study of both theory and production techniques; analysis of work that uses media and critical media literacy projects. Concur- rently scheduled with course CM178. Letter grading.
CM278L. Critical Media Literacy and Politics of Gender: Laboratory. (2) Same as Education CM278L. Laboratory, two hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course CM178L. Letter grading.

285. Special Topics in Women's Studies. (4) Lecture/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 disciplinary 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 disciplinary 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: appointment 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, arranged 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 examinations. 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 changed it. It examines the physical Earth and life on it, looking at the world's diverse cultures and economies and at the environmental problems they produce.

Geography addresses many issues about the contemporary world. Some are local, such as documenting the development of ethnic neighborhoods within Los Angeles. Others are regional, such as determining the best locations for nature reserves in California. Many are global, such as the study of greenhouse gases and how they affect climates, culture and resource issues in developing countries, and the impact of information technologies on people in different places.

The work of geographers often takes them out of the classroom into the field to collect information on topics that range from the settlement of new immigrants to the distribution of endangered species, the erosion of shorelines, and the location of high-tech businesses. On other occasions, geographers work in laboratories, using techniques such as the computer analysis of satellite photographs to look for changes in river courses and the computer modeling of shifts in global vegetation patterns and the distribution of human populations. Research is also conducted in libraries and archives, probing documentary sources on human interaction with the natural world and how that world is imagined.

Department of Geography graduates have a wide variety of career opportunities because of their combination of geographical/environmental perspectives and technical skills. UCLA geography students have gone on to become university scholars, school teachers, members of governmental and 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 undergraduate minors in Geography, Geography/Environmental Studies, and Geospatial Information Systems and Technologies.

The department also offers the PhD degree in Geography (an MA degree may be earned in the process of completing PhD requirements). Student research projects are conducted in collaboration with a faculty adviser and advisory committee. Graduate students work in most major areas of geography and on projects around the world. Graduate alumni of the department have teaching positions at many leading universities in the U.S. and abroad.

Learning Outcomes

The Geography major has the following learning outcomes:

- Comprehensive knowledge of the main strands of physical and human geography, including familiarity with major theoretical perspectives
- Command of various geographical methods and techniques such as remote sensing, cartography, and field methods
- Skills in collecting and analyzing geographical data
- 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, and one statistics course.

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

The Major

Required: Eleven upper-division geography courses (44 units minimum), each taken for a letter grade. All geography upper-division courses numbered 100 and higher may be applied toward the major, with a few exceptions. Contact the advising office for more information.

Geography/Environmental Studies BA

The major in Geography/Environmental Studies develops and deepens students’ understanding of environmental issues; it explores problem-solving approaches from an interactive people/nature viewpoint and involves analysis of social, physical, and biotic environmental systems. The major’s uniqueness lies in its emphasis on its geographical perspective of human impacts on natural systems, as well as of implications of global change on local and regional human systems.

Learning Outcomes

The Geography/Environmental Studies major has the following learning outcomes:

• Comprehensive knowledge of the main strands of physical and human geography, including familiarity with major theoretical perspectives

• Command of various geographical methods and techniques such as remote sensing, cartography, and field methods

• Familiarity with a range of environmental problems at different geographical scales, their analysis, modeling, and various policy responses to them

• Skills in collecting and analyzing geographical data

• Proficiency in written arguments drawing on appropriate sources and methods in the geographical literature

Preparation for the Major

Required: Geography 1 or 2, 3 or 4 or 6, and Statistics 12. Each course must be taken for a letter grade. Students are strongly advised to complete all preparation for the major courses before beginning upper-division work in the major.

Transfer Students

Transfer applicants to the Geography/Environmental Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one physical geography or biogeography course, one cultural geography or economic geography course, one people and ecosystems course, and one statistics course.

It is strongly recommended that students take Geography 7 before taking upper-division courses in the major. Geography 7 is an enforced requisite for courses 167, 168, and 169, and must be taken prior to enrolling in these courses. Students taking this course as a requisite only may take it as P/NP grading.

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

The Major

Required: Eleven upper-division geography courses, each taken for a letter grade, that must be distributed as follows: (1) environmental studies and natural systems core—six courses from 100, 101, 102, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 122, 123, 124, 125, 126, 127, 128, 129, 131, 132, 133, 135, 137, 139C, 159D, 159E; (2) human systems core—two courses from 118, 133, 138, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 153, 155, 159A, 159B; (3) procedures—two courses from 162, 163, 166, 167, 168, 169, 170, M171, 172, 173, 174, 177; and (4) regions—one course from 119, 139, 145, 152, 156, 158, 180, 181, 182A, 182B, 183, 184, 185, or 186. Each course must be taken for a letter grade.

Geography/Environmental Studies majors are advised to complete the required courses in the human systems core before taking courses in the environmental studies and natural systems core.

Honors Program

The departmental honors program is designed for Geography and Geography/Environmental Studies majors who are interested in completing a research project that culminates in an honors thesis.

To qualify for graduation with departmental honors, students must have a cumulative grade-point average 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). Contact the department advising office for more information.

Geography Minor

The Geography minor is designed for students who wish to deepen and/or 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 cultural, economic, political, and social patterns associated with the human development, occupancy, organization, perception, and use of these landscapes.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in the Geography Department Advising Office, 1255 Bunche Hall, 310-825-1166. Courses should be selected in consultation with the departmental adviser.

Required Lower-Division Courses (10 units): Two courses from 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 for any of the above is subject to departmental approval.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Geography/Environmental Studies Minor

The Geography/Environmental Studies minor is intended for students interested in environmental issues and emphasizes a systems approach to gaining a causal understanding of major environmental problems facing our society and the world at large. The uniqueness of the minor lies in its geographical perspective on the impact, at various geographical scales, of human activity on natural systems and on the implications of global environmental change on local, regional, and global human systems.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in the Geography Department Advising Office, 1255 Bunche Hall, 310-825-1166. Courses should be selected in consultation with the departmental adviser.

Required Lower-Division Courses (10 units): Geography 5 and one course from 1, 2, 3, 4, 6. It is recommended that students take these courses before attempting upper-division courses.

Required Upper-Division Courses (20 units): Three courses from the environmental studies cluster specified within the major and two geography courses from outside the environmental studies cluster.

A minimum of 20 units applied toward the minor requirements must be in addition to units
applied toward major requirements or another minor, and at least three of the five upper-division courses must be taken in residence at UCLA. Transfer credit for any of the above is subject to departmental approval.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Geospatial Information Systems and Technologies Minor

The Geospatial Information Systems and Technologies minor is designed to provide students with a strong background in the use, application, and development of geospatial/environmental research techniques and methods.

To enter the minor, students must be in good academic standing, have completed Geography 7 with a grade of B or better, and file a petition in the Geography Department Advising Office, 1255 Bunch Hall, 310-825-1166. For majors in Geography or Geography/Environmental Studies, only two upper-division courses may overlap between the major and this minor.

Required Lower-Division Courses (10 units):
- Geography 7, Statistics 12.

Required Upper-Division Courses (24 units minimum):
- Geography 167, 168, 169, 170, and any two courses selected from 154, 162, 163, 166, M171, 172, 173, and 199 (4 units with approval of the faculty adviser). Each upper-division course must be completed with a grade of C or better.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Geography offers Master of Arts (MA), Candidate in Philosophy (CPHil), and Doctor of Philosophy (PhD) degrees in Geography.

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 explores spatial distribution of all forms of human productive activity at number of geographical scales—local, regional, national, and global. Key theme is impact of increasingly powerful global economic forces on organization of production. P/NP or letter grading.

5. People and Earth’s Ecosystems. (5) Lecture, three hours; laboratory, two hours. Exploration of ways in which humans interact with earth’s ecosystems 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 Geographic Information Systems. (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). Enforcement 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.

8. 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 of current intellectual importance, taught by faculty members in their areas of expertise and of current intellectual importance, taught by faculty members in their areas of expertise. P/NP or letter grading.

89A-88Z. Lower Division Seminars: Geography. (4 each) Discussion, three hours; reading period, one hour. Seminar designed to explore various themes and issues pertinent to environment and people. Seminar topics advertised in department during previous term. P/NP or letter grading.

88GE. Seminar Sequence: Special Topics in Geography. (5) Seminar, three hours. Enforced requisite: course 5. Designed 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 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; reading period, one hour. Enforced requisite: course 1. Individual research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

100. Principles of Geomorphology. (4) Lecture, three hours; reading period, one hour. Enforced requisite: course 1. Recommended: courses 101A, 101B, 102, 105. 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.

101. Coastal Geomorphology. (4) Lecture, three hours; reading period, one hour. Enforced requisite: course 1. Recommended: courses 101A, 101B, 102, 105. Study of processes that shape coastal landforms, with emphasis on past and present changes, hydrodynamic processes, sediment transfers, and such features as beaches, estuaries, lagoons, deltas, wetlands, dunes, seashells, and coral reefs, together with coastal zone management. 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. Designed for juniors/seniors. Examination of many relationships between climate and world of man. Application of basic energy budget concepts to microclimates of relevance to ecosystems of agriculture, animals, man, and urban places. P/NP or letter grading.


105A. Hydrology: Field and Laboratory. (2) Laboratory/fieldwork, six hours. Corequisite; course 105. Field and laboratory investigations into role of water in geographic systems: hydrologic phenomena in relation to climate, landforms, soils, vegetation, and cultural processes and impacts on landscape. P/NP or letter grading.

M105. Applied Climatology: Principles of Climate Impact on Natural Environment. (4) Same as Atmospheric and Oceanic Sciences M105.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of knowledge and tools to solve complex problems in contemporary applied climatology, including current practices, influence of climate on environment, and human influence on changing climates. P/NP or letter grading.

M107. Soil and Water Conservation. (4) Same as Environment M114.) Lecture, three hours; discussion, one hour. Enforced requisite: course 1 or 2 or Life Sciences 1 or 3. 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.

M109. Human Impact on Biophysical Environmental: What Science Has Learned. (4) (Same as Environment M109.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of history, mechanistic causes, consequences of interactions between humans and environment. Exploration in depth of three thematic topics (deforestation, desertification, and greenhouse gas increase and ozone depletion) and N/P factors (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. Prerequisites: one of Life Sciences 1. Designed for juniors/seniors. Evaluation of ecological principles as they apply to forests. Emphasis on constraints of physical environment, biotic interactions, succession, and the long-term environmental change. P/NP or letter grading.


113. Humid Tropics. (4) Lecture, three hours. Requisite: course 2 or 5 or Life Sciences 1. Designed for juniors/seniors. Examination of humid tropics, with emphasis on rainforests, their ecological principles, and forms of land use. Letter grading.


M115. Environmentalism: Past, Present, and Future. (4) (Same as Environment M132 and Urban Planning M132.) Lecture, three hours; discussion, one hour. Exploration of history and origin of major environmental ideas, movements or countermovements they spawned, and new and changing nature of modern environmentalism. Introduction to early ideas of environment, how rise of modern sciences reshaped environmental thought, and how this was later transformed by 19th-century ideas and rise of American conservation movements. Review of politics of American environmental thought and contemporary environmental questions as they relate to broader set of questions about nature of development, success in environmental battle. Exploration of issues in broad context, including 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 through natural processes or by human activity. P/NP or letter grading.

M117. Ecosystem Ecology. (4) (Same as Ecology and Evolutionary Biology M131.) Lecture, three hours; field trips. Requisite: course 1 or Life Sciences 2 or 5. Designed for juniors/seniors. Development of principles of ecosystem ecology, with focus on understanding links between ecosystem structure and function. Emphasis on energy and water balances, nutrient cycling, plant-soil-microbe interactions, landscape heterogeneity, and human disturbance to ecosystems. P/NP or letter grading.

118. Medical Geography. (4) Lecture, three hours; reading period, one hour. Requisite: course 5. Examination of population's disease interaction and some effects of change and development on disease etiology and problems of healthcare. P/NP or letter grading.

119. Biophysical and Social Transforms in Northern Regions. (4) Lecture, three hours. Enforced prerequisite: course 5. Substantial transformation of world's northern high latitudes due to climate change, natural resource development, and key demographic trends (including rising sea level). West Siberia, 21st century, projected rise in 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. Ability of northern societies to react to these phenomena is shaped by new legal frameworks, like aboriginal land-claims agreements in North America, and resource economics, like oil and gas industry in West Siberia. Eight northern 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 of environmental change. P/NP or 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 developed and developing countries. P/NP or letter grading.


M127. Soils and Environment. (4) (Same as Ecology and Evolutionary Biology M127 and Environment M127.) 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, and biological properties; water use, erosion, and pollution; management of soils as related to plant growth and distribution. P/NP or letter grading.

M127L. Soils and Environment: Field. (1) (Same as Ecology and Evolutionary Biology M127L and Environment M127L) 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.


129. Seminar: Environmental Studies. (4) Seminar, three hours; reading period, one hour. Preparation: one course each from natural and human systems cores, three environmental studies cluster courses. Limited to seniors. Qualitative/quantitative analysis of problems associated with rational protection and use of selected environmental systems (urban, rural, forest, desert, coastal, water, soil, or others). P/NP or letter grading.

130. Geographical Discovery and Exploration. (4) Lecture, three hours; reading period, one hour. Requisites: courses 1, 3. Designed for juniors/seniors. Survey of history of exploration from earliest times to modern, with emphasis on period from Marco Polo to present. P/NP or letter grading.

M131. Environmental Change. (4) (Same as Environment M131.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of natural forces producing changes over past two million years. How present landscape reflects 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.

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 structural approach to cultural geography of modern world system, with particular emphasis on structure and functioning of its core, semi-periphery, and periphery. P/NP or letter grading.

134. Border Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Analysis of history, production, and functions of contemporary borders. Designed to broaden understanding of and challenge dominant narratives about many physical, political, and conceptual borders that shape our daily lives, from national boundaries to security fences to discoveries about race and gender. P/NP or letter grading.


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 time, with emphasis on interaction between and among natural factors of climate, soils, vegetation, and landforms, and human factors of settlement, economic activity, technology, and cultural traits. P/NP or letter grading.

138. Place, Identity, and Networked World. (4) Lecture, three hours; reading period, one hour. Communications technologies, such as personal computers and Internet, seem to be connected to dramatic changes in identities of people, groups, and places. Exploration of those changes and their implications for social institutions and human values and practices. P/NP or letter grading.

M171. Introduction to Spatial Statistics. (4) (Same as Statistics M171.) Lecture, three hours; laboratory, one hour. Requisite: one course from Statistics 10, 11, 12, 13, or 14. Introduction to methods of measurement and interpretation of geographic distributions and associations, 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 languages commonly 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. Enforced requisite: courses 169, 172. 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 constraint 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 and concepts 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, and field methods in geographic inquiry. May be repeated for credit with topic change. P/NP or letter grading.

180. North 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 Middle America and contemporay economic and cultural geography of Mexico and countries of Central America and West Indies, 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 Spanish South America and contemporary economic and cultural geography of individual Spanish-speaking countries. 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 contemporay 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 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. Enforced requisite: course 167. 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.

186. South and Southeast Asia. (4) Lecture, three hours; reading period, one hour. Designed for 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.

188. Contemporary China. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Systematic geographic analysis of elements of landscape, resources, population, 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 China-South Korea relations and their geographic bases. P/NP or letter grading.

Special Studies

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct 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 20 students. Designed as adjunct undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

191. Variable Topics Research Seminars: Geograhy. (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 toward elective units toward departmental minors and majors. P/NP or letter grading.

194. Research Group Seminars: Geography. (2) Seminar, two hours; research group meeting, two hours. Designed for undergraduate students who are part of research group of research methods and current literature in field of or research of faculty members or students. May meet concur rently with graduate research seminar. May be repeated for credit with topic change. P/NP grading.

C194A. Research Group Seminars: Issues in Biophysical Geography. (1) Seminar, one hour. Designed for undergraduate students who are part of research group of research methods and current literature in field of or research of faculty members or students. May meet concurrently with graduate research seminar. May be repeated for credit with topic change. P/NP grading.

195. Community or Corporate Internships in Geography. (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 report 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. (4-8) Tutorial, to be arranged. Preparation: 3.25 grade-point average in four upper-division geography courses with 3.5 grade-point average. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project in consultation of one or more faculty members. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

199. Special Studies. (2 to 8) 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 Courses

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.


Methods Courses

201. Research Design in Geography. (4) Formerly numbered 299D.) Lecture, four hours. Introduction to logic of geographic inquiry. Topics include questions surrounding philosophy of geography, issues, and range of methodologies available to and implemented by geographers to evaluate students, to evaluate geographic literature critically. S/U or letter grading.

202. Qualitative Methods and Methodology. (4) Formerly numbered 299C.) Seminar, three hours; laboratory, two hours. Examination of definition and use of qualitative methodology and methods in social-cultural geographic research. Exploration of relationship between methodology and epistemology; review of range of research methods and techniques, including interviewing and focus groups, observation, action research, ethnography, and interpretation of material culture, and consideration of ethical and practical issues of conducting qualitative research. S/U or letter grading.


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 idealized representation of soil, 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. Requisites: 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 299C.) Laboratory, three hours; independent study, two hours. Requisite: course 167. Study of aerial photographs and other remote sensing images as tools for geographical research. Particular attention to analysis of landscapes and interpretation of interrelationships of individual features in their physical and cultural complex. S/U or letter grading.
Remote Sensing Courses

212. Physical, Mathematical, and Computational Basis of Remote Sensing. (Formerly numbered 299F.) Lecture, laboratory, two hours. Requisites: courses 169, 172. Intensive review and analysis of fundamental physics, mathematics, and computer science that underlie modern remote sensing and application of this knowledge to modern geographical problems. May be repeated for credit with topic change. S/U or letter grading.

214. Advanced Projects in Geographic Information Systems (GIS)/Remote Sensing. (Formerly numbered 268.) Lecture, one hour; laboratory, three hours. Recommended requisite: course 169 or 170 or Earth, Planetary, and Space Sciences 150. Familiarity with GIS or remote sensing 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. (Formerly numbered 260.) Lecture, four 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 or new topic. Letter grading.

216. Advanced Field Analysis: Biogeography. (Formerly numbered 262.) Fieldwork, 10 hours. Observation, measurement, and analysis of biogeographic phenomena, including identification and evaluation of biotic populations and communities 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. Prerequisite: course 118. In-depth study of selected topics in medical geography and intensive review of recent research. S/U or letter grading.

Human Geography Courses

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 exploring both theoretical debates of field and empirical data and case studies on which those debates hinge, to encourage students to undertake work in this area. 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, nationalism, liberalism, 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.


M229C. Resource-Based Development. (4) (Same as Urban Planning M234C.) Lecture, three hours. Recommended preparation: course M229A. Some major issues associated with development of specific natural resources. Topics include nature of particular resource (or region associated with it), its previous management, involvement of state, corporations, and local groups, and environmental and social impact of its development. Letter grading.

Human Geography Seminars

M230A. Theories of Regional Economic Development I. (4) (Formerly numbered M236A.) Lecture, three hours; discussion, one hour; 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.


235. Seminar: Social Geography. (4) Seminar, three hours; discussion, two hours; process of doing social research and cultural analysis and generation of ideas. Discussion, one hour. Prerequisite: course M230A. Letter grading.

236. Seminar: Cultural Geography. (4) (Formerly numbered 236A.) Seminar, three hours; reading period, two hours. Discussions on particular topics in cultural geography. Content may vary from year to year. May be repeated for credit. S/U or letter grading.

237. Seminar: Historical Geography. (4) Seminar, three hours; reading period, two hours. Theory and practice of historical research in Asia, Africa, and Europe. May be repeated for credit. S/U or letter grading.

238. Seminar: Urban Geography. (4) (Formerly numbered 236B.) Seminar, three hours; reading period, two hours. Discussion of process of doing social research and cultural analysis and generation of ideas. Discussion, one hour. Prerequisite: course M230B. Related research projects growing out of course 250. May be repeated for credit. S/U or letter grading.

240. Seminar: Geographic Thought. (4) (Formerly numbered 295A.) Seminar, three hours; reading period, two hours. Designed for graduate students. Discussion, one hour. Prerequisite: course M230B. Letter grading.

245. Advanced Political Geography: Geopolitics. (4) (Formerly numbered 240.) Lecture, two hours; discussion, one hour. Prerequisite: course 230. Letter grading.

247. Advanced Topics in Cultural Geography. (4) (Formerly numbered 242.) Seminar, one hour; reading period, one hour. Requisite: course 133. Lectures and discussions around specific questions and areas of benefit to different geographic environments. S/U or letter grading.

248. Advanced Topics in Economic Geography. (4) (Formerly numbered 231.) Seminar, three hours; reading period, one hour. 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 with social theory and theories to account for location and size distribution of cities. S/U or letter grading.

Physical Geography Courses

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 the physical geography, illustrated from historical development and changing research frontiers in geomorphology, climatology, oceanography, hydrology, and other physical disciplines. 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/atmosphere interactions. Exploration of terms of regional and global perspective and implications. Human activities cause changes in land cover, which in turn affect regional climate. Some regions, in particular, appear to be hot spots. Regions to be studied in detail. S/U or letter grading.

257. Land Degradation. (4) (Formerly numbered 227.) Seminar, three hours. Discussion of impact of human activities and institutions on terrestrial ecosystems 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 contemporaneous development of modern concepts of evolution, ecology, and environmentalism influenced, and were influential in development of modern geography as academic discipline. S/U or letter grading.

M265. Environmentalisms: Climate Dimensions and Politics, Past, Present, Future. (4) (Same as Urban Planning M265.) Lecture, three hours; discussion, one hour; review of environmental theories and their practices in dynamic U.S. and international contexts. Issues of climate change, scenario planning, and matrix ecology and its implications in both urban and rural settings. Exploration of problems of increasing internationalization in environmental practices as part of both green and black economies. What does integrated environmental planning look like in this century? Letter grading.

Physical Geography Seminars

M270A-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, geochemical, micropaleontological, and stratigraphic evidence for climate change throughout geological past. Paleoclimatology and dynamics of climatic subsystems: atmosphere and oceans, ice sheets and marine ice, lithosphere and mantle. Climate of other planets. Modeling, simulation, and prediction on monthly, seasonal, and interannual time scale. May be repeated for credit. S/U or letter grading.
Scope and Objectives

The Department of Germanic Languages offers an array of courses in languages, literatures, and cultures. The broad range of studies offers training in specialized fields such as film, linguistics, and critical theory. Courses prepare students for a variety of careers, including education, law, business, international relations, and publishing.

Undergraduate majors earn a Bachelor of Arts degree by completing one of three plans. An undergraduate minor is also available. Language, literature, and culture studies are available in Afrikaans and Dutch, in addition to German.

The graduate program offers Master of Arts and PhD degrees. Refer to the Scandinavian Section for information about the degrees in Scandinavian studies.

The program also provides opportunity for study, workstudy, and internships.

Undergraduate Study

The German major is a designated capstone major. During their senior year, students complete a capstone seminar under the guidance of a faculty member. In the seminar they reflect both individually and collaboratively on prior coursework for the major and draw out common themes. Students identify key ideas that interest them while demonstrating analytical thinking, synthesized knowledge, collaborative spirit, and a keen awareness of the German language and German-speaking cultures.
German BA
Capstone Major
Learning Outcomes
The German major has the following learning outcomes:
- Demonstrated skills at analyzing and synthesizing knowledge gained
- Identification, drawn from coursework, of a key idea or theme of interest
- Ability to effectively present learning about selected theme through final paper or project
- Demonstrated capacity to work collectively to effectively analyze and synthesize knowledge

Preparation for the Major
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; two years of German.

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

The Major
Three plans are offered by the department.

Plan I: German Studies
Required: Six upper-division German courses, three upper-division elective courses in fields relevant to Germanic languages to be selected in consultation with the director of undergraduate studies, and German 191C. Each course must be taken for a letter grade.

Plan II: Germanic Language and Literature
Required: German 140, 141, or C142; 152; or 158; or 191C; and six upper-division German courses, two of which may be from outside the department with approval of the director of undergraduate studies. Each course must be taken for a letter grade.

Plan III: Germanic Linguistics
Required: German 140, 141, C142, 152, 153, 191C, one upper-division elective course in the department, and three upper-division elective courses in fields relevant to Germanic languages to be selected in consultation with the director of undergraduate studies.

Honors Program
To qualify for graduation with departmental honors, students must earn a cumulative grade-point average of 3.6 or better in upper-division German courses and a 3.3 overall GPA, and complete German 199 with a grade of A. Contact the departmental honors adviser for procedures, special arrangements, possible exceptions, and other information.

German Minor
To enter the German minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (8 units): German 5 and 6 or equivalent.

Required Upper-Division Courses (at least 20 units): Any five upper-division courses in the department.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Germanic Languages offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Germanic Languages and a Master of Arts (MA) degree in Scandinavian (see Scandinavian Section).

Afrikaans
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion 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, Breynbach, Van Heerden, Jonker, Joubert, Krog, LeRoux, Rabie, Smal, and Willemse. Additional readings by Coetzee, de Lange, Krog, and others on censorship, imprisonment, South African history, and post-colonial 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 repeated for credit. Individual contract required. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Good Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
105A. Elementary Afrikaans. (4) Lecture, four hours; language laboratory. Introduction to sister language of modern Dutch and one national language of South Africa. Grammar, practice in listening, speaking, reading, and writing. P/NP or letter grading.

105B. Intermediate Afrikaans. (4) Lecture, four hours; language laboratory. Requisite: course 105A. Grammatical exercises; reading and linguistic analysis of texts from both literary and nonliterary sources. P/NP or letter grading.

135. Introduction to Afrikaans Literature. (4) Discussion, three hours. Requisite: course 105B. Analysis of selected works from founding of Genootskap van Reë Afrikaners in 1875 to present time, including novels by recent writers such as Leroux and Brink, as well as work of poets such as Eybers, Opperman, W.E.G. Louw, van Wyk Louw, and Breytenbach. P/NP or letter grading.

199. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

199HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses
596. Directed Individual Study or Research in Afrikaans. (4) Tutorial, to be arranged with faculty member who directs study or research (course section to be identified by two-letter code using initials of sponsoring instructor—see department for ID number). May be repeated for credit. Individual contract required. P/NP or letter grading.

597. Preparation for PhD Qualifying Examinations. (4) Tutorial, to be arranged with instructor (see department for ID number). S/U 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 staunch ally of its 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, 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. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

103A-103B. Elementary Dutch. (4–4) Lecture, four hours; language laboratory. Course 103A is requisite to 103B. Introduction to standard language of Netherlands and one of three standard languages of Belgium. Practice in grammar, listening, speaking, lands and one of three standard languages of Belgium. Practice in grammar, listening, speaking, reading, writing. P/NP or letter grading.


104A-104B. Accelerated Dutch. (6–6) Lecture, four hours; discussion, one hour; laboratory, two hours. Covers material in courses 103A, 103B, 103C in two terms rather than three. Letter grading.

113. Modern Dutch and Flemish Literature in Translation. (4) Lecture, three hours. Readings and analysis of works by selected authors of Netherlands and northern Belgium such as Boon, Chiel, Couperus, Hermans, Mulisch, Multatuli, and Reive and selected poets such as Campert, Gezelle, Gorter, Kloos, Luicbrect, Nijhoff, Van Oostaijen, and Vroman. Letter grading.


131. Introduction to Modern Dutch Literature. (4) Discussion, three hours. Requisite: course 103B or 120. Selected works of literature of Netherlands and northern (Flemish) Belgium from mid-1850s to present, including novels by such writers as Multatuli, Couperus, Hermans, Mulisch, and Reive and poetry by such groups as symbolist Beweging van Tachtig and post-War Beweging van Vlijtig. 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.

50B. 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 Who Changed World: 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/screening, five hours; discussion, one hour. Examination of images of Germany generated by Hollywood, cultural/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 Mediev-

59. Holocaust in Film and Literature. (5) Lecture/ screenings, five hours; discussion, one hour. History of Holocaust and its present memory through examination of challenges and problems encountered in trying to imagine its horror through media of literature and film. P/NP or letter grading.

60W. War. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Reflection on cultural history of war—on its significance from anthropological, cultural, and philosophical perspectives rather than from perspective of political and historical gains and losses. Emphasis on World War I, war in literature and on cosmopolitanism. Exploration of different historical and contemporary critiques of long-standing relations particularly attuned to sense of confrontationalism and societal violence. Satisfies Writing II requirement. Letter grading.

61A. Modern Metropolis: Berlin. (5) Lecture, three hours; discussion, one hour. Cultural, political, architectural, and urban history of one of most vibrant and significant cities in world. Exploration of city over 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 and architectural/cultural descriptions of major Central European cities and their cultures. P/NP or letter grading. 61B, Weinra; 61C, Vienna; 61D, Prague.

M70. Origin of Language. (5) Same as Communica-

50A-50B. Great Works of German Literature in Trans-

50A, Medieval Period through Classicism. (4) Lecture, three hours. Study and analysis of selected master-
for maximum of 4 units. Individual honors contract re-
quired. Honors content noted on transcript. Letter
grading.
99. Student Research Program. (1 to 2) Tutorial (su-
pervised research or other scholarly work), three
hours per week. 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 Under-
graduate Research Center. May be repeated. P/NP or
letter grading.

Upper-Division Courses
102. War, Politics, Art. (5) Lecture, three hours; dis-
cussion. Taught in English. Analysis of rela-
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 Ger-
man Film. (4) Lecture, two hours; discussion, one
hour. Taught in English. Survey of German film be-
tween 1919 and 1945. Analysis of technical and
stylistic development of film from silent Expressionist
films to Nazi propaganda and entertainment films. Film
discussions enhanced by interactive media. Letter
grading.
104. German Film in Cultural Context, 1945 to
Present. (4) Lecture, two hours; discussion, one
hour. Taught in English. Survey of German film since 1945
in its thematic and stylistic diversity. How did German
filmmakers grapple with aftermath of World War II and
Holocaust, economic recovery, Cold War and division of
Germany, reunification, and growth of minority
communities? Film discussions enhanced by interac-
tive media. Letter grading.
105. Tristan, Isolde, and History of Heterosexual-
ity. (4) (Same as Gender Studies M119.) Lecture,
three hours. Taught in English, German, French, and
English. Work on literary representations of male
and female desire from Middle Ages to 20th century. Particular attention to
relation between representation of heterosexual love in
text and contemporaneous ideas about
human sexuality. P/NP or letter grading.
109. Jewish Question and German Thought. (4) Lecture,
three hours. Taught in English. Analysis of works that
represent process of Jewish assimilation, disaffiliation, and extermination, including authors
such as Mendelssohn, Heine, Kafka, Paul
Celan, Nelly Sachs, Anne Frank, and others. Letter
grading.
110. Special Topics in Modern Literature and Cul-
ture. (4) Lecture, three hours. Taught in English. Con-
textualized readings of a particular topic and may include
writers such as Thomas Mann, Rilke, Kafka, Brecht,
Christa Wolf, and others. May be repeated for credit.
Letter grading.
113. Thomas Mann, Hesse, Böll, and Grass: Ger-
man Nobel Prize Winners in English. (4) Lecture,
three hours. Taught in English. Survey of Nobel Prize
winning German texts with eye for degree to which
these authors revisions reflect Nobel’s ideal of peace
and progress of human race. Texts include Weavers
(Hauptmann), excerpts from Buddenbrooks (Mann), and
Siddhartha (Hesse). Viewing of films based on Lost
Honour of Katharina Blum and Tin Drum. Letter
grading.
116. Feminist Issues in German Literature and Cul-
ture. (4) Lecture, three hours. Taught in English. Anal-
ysis of major issues in German feminism today (e.g.,
status, creative work, and reception of women writers
in various periods such as Romanticism, Fascism,
and/or divided/unified Germany). Letter grading.
117. German Folklore. (4) Lecture, two hours; discus-
sion, one hour. Taught in English. Survey of various folklore genres in
various periods such as Romanticism, Fascism,
and/or divided/unified Germanies). Letter grading.
118SL. Between Memory and History: Interviewing
Holocaust Survivors. (4) Seminar, two hours; field-
work, two hours. Strongly recommended requisites:
prior European and Holocaust history courses. Exam-
ination of historical value of witness testimony of
Holocaust through unique service opportunities that
bring students together with survivors. Question of
memory approached from different perspectives,
including legal, historical, and ethical, to examine
vexed relationship between memory and history. Ex-
amination of survivor testimony through classic mem-
ors in field, such as Primo Leivi’s The Drowned and the
Salvaged and Ruth Klugman Is Still Alive. Through col-
aboration with Jewish Family Services, 1939 Club,
and Los Angeles Museum of Holocaust, students
meet and work with Holocaust survivors and under-
take collaborative research projects and oral histories.
Students also research and curate series of interac-
tive tours through Museum of Holocaust. Letter
grading.
140. Language and Linguistics. (4) Lecture,
three hours. Taught in English. Course 141. Taught in English with
German proficiency required. Theories and methods of linguistics, with emphasis
on structure of modern standard German, its
phonology, morphology, and syntax, and prag-
agistics. Other topics include diachronic, spatial,
and social variation of German (i.e., its historical develop-
ment, dialectology, and sociolinguistic dimensions).
Letter grading.
141. Current Topics in Germanic Linguistics. (4) Lecture,
three hours. Enforced requisite: course 152. Taught in English with Germanic proficiency required.
In-depth investigation of one topic in field of Ger-
manic linguistics. Course may help students take
upper-division courses in other disciplines (e.g.,
Dutch and German, considered from theoretical
frameworks such as sign-oriented linguistics, func-
tional linguistics, discourse grammar, and
cognitive linguistics. Discussion of formal linguistic approaches.
Concurrentley scheduled with course C238. Letter
grading.
150. German Play Production Act I. (5) Lecture, four
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 performance roles in class, and
writing of short responses in German. May be repeated for credit. Letter
grading.
151. German Play Production Act II. (5) Lecture,
four hours. Requisites: course 3 (enforced). Taught
in German. Students responsible for various aspects of theater production,
including acting and technical jobs (costumes, sets, and programs). Intensive pronunciation practice. Two
public performances take place at end of term. May be repeated for credit. Letter
grading.
152. Conversation and Composition on Contem-
porary German Culture and Society I. (4) Lecture,
three hours. Requisite: course 3. Taught in German.
Structured around themes as they emerge in contem-
porary German texts ranging from news magazine ar-
ticles to literature, with emphasis on speaking and
writing proficiency. Presentation software featured. P/NP or letter grading.
153. Conversation and Composition on Contem-
porary German Culture and Society II. (4) Lecture,
three hours. Requisite: course 6. Taught in German.
Structured around themes as they emerge in contem-
porary German texts ranging from news magazine ar-
ticles to literature, with emphasis on speaking and
writing proficiency. Presentation software featured. P/NP or letter grading.
154. Business German. (4) Lecture, three hours.
Requisite: course 6. Taught in German. Specialized
language course that teaches German business ad-
ministration, practices, and correspondence, with
attention to cultural nuances. Examinations in European Union analyzed via news.
Letter grading.
155. Advanced German Language through Cultur-
al History and Current Affairs. (4) Lecture,
three hours. Requisites: courses 152, 153. Taught in
German. Advanced German language course that
juxtaposes cultural history with current affairs to teach contemporary German
thought and culture. Current topics may include
analysis, and criticism. Readings may include selec-
tions from Luther, Heine, Freud, and current authors.
Students create their own interactive media presenta-
tions. Letter grading.
157. Contemporary German Cinema: Advanced
Conversation and Composition. (4) Lecture,
three hours. Taught in German. Development of advanced
speaking and listening skills and thorough grounding in
writing in German by considering matters of style, structure, grammar, and vocabulary. Introduction to
contemporary German cinema to expose students
to slice of German (and European) culture and history,
with focus on the notion of borders and otherness, dif-
ferent types of boundaries and borders (e.g., physical
borders between countries; boundaries created by
various political ideologies; socially created bound-
aries such as race, age, sex, and national and
memory experience), ways in which people cross
them, and their reasons for this transgressions.
Analysis of movies to better understand various cine-
matic techniques. P/NP or letter grading.
158. Introduction to Study of Literature. (4) Lecture,
three hours. Taught in German. Introduction to most important terms and resources of literary analy-
ya, such as genres and narratives. Examine in
close and critical reading of literary texts, develop
basic research techniques, acquire familiarity with
basic terms of literary and cultural analysis, and
find pleasure reading. P/NP or letter grading.
159. German Cultural Studies. (4) Lecture,
three hours. Requisite: course 152 or 153. Taught
in German; some theoretical readings in English. Explo-
ration of German culture in different historical con-
texts. Exploration of modern and contemporary prac-
tices, and standpoints as staged in literary and nonlit-
erary texts, with emphasis on constructions of sex
and gender, memory and national identity, and eth-
nicity and race. Analysis of thinking, and talking about these issues as manifested in sev-
eral cultural debates that dominated public discus-
sions 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, re-
source.
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constituting/preserving sites of memory in postwar Germany, and headscarf and integration in contemporary Germany). Letter grading.

160. Introduction to German Poetry. (4) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis of selected works of German lyric poetry from early as well as recent literary periods, including systematic consideration of poetic conventions and forms, diction, imagery, symbolism, and metrics. Letter grading.

161. Introduction to German Drama. (4) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis of selected dramatic genres (e.g., tragedy, comedy, one-act play, lyric drama, lyric theater, historical play) and systematic consideration of specific theatrical and cultural contexts. Letter grading.

162. Introduction to German Narrative Prose. (4) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis of narrative prose genres (e.g., short story, novella, fairy tales, etc.), including systematic review of narrative forms, techniques, and styles. Texts selected from both contemporary and earlier periods. Letter grading.

170. Goethe. (4) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Reading and discussion of major works from Middle Ages to baroque. Letter grading.


172. Romanticism. (4) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis of selected works by such as Friedrich Schlegel, Novalis, and Hoffman, with emphasis on constructions of ethnicity, nation, race, class, and gender. Analysis of several political and cultural debates in the domain of modernism, and public discussions in Germany and Europe for several years. Letter grading.

175. Introduction to Middle High German. (4) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Introductory study of Middle High German (ca. 1050 to 1370), 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.

180. Study of Middle German Literature and Culture. (4) Lecture, three hours. Analysis of major 18th-century German texts from philosophic, social-historical, and cultural perspectives. Letter grading.

187. Undergraduate Seminar. (4) Seminar, three hours. Required of all German majors who are candidates for general secondary instructional credential. Content varies by instructor and may include an advanced work in folklore, film, and German studies. Letter grading.

189A. Variable Topics. (2 to 4) Seminar, three hours. Analysis of selected works of German Romanticism such as Friedrich Schlegel, Novalis, and Hoffman, with emphasis on constructions of ethnicity, nation, race, class, and gender. Analysis of several political and cultural debates in the domain of modernism, and public discussions in Germany and Europe for several years. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. 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. May be repeated for credit with consent of major advisor. P/NP or letter grading.

191A. Individual Studies in German. (2 to 4) Tutorial, three hours. May be applied toward honors credit for eligible students. Individual contract required. P/NP or letter grading.

191C. Capstone Seminar. (2) Seminar, three hours. Limited to senior German majors. Collaborative discussion of and reflection on courses already taken for major, drawing out and synthesizing larger themes and culminating in paper or other final project. Must be taken in conjunction with one course numbered 140 or higher. Letter grading.

197. Individual Studies in German. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Subject matter required. May be repeated for credit with consent of major advisor. 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 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 criticism, 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. Study of selected works and theories of German classicism. May include problems in reception of classicism by later authors and cultural theorists. 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 Hoffmann, with emphasis on constructions of ethnicity, nation, race, class, and gender. Analysis of several political and cultural debates in the domain of modernism, and public discussions in Germany and Europe for several years. Letter grading.


210A. Naturalism, Symbolism, and Expressionism. (4) Lecture, three hours. Analysis of selected works (poetry, drama, prose) of early modernism from Hauptmann to 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 political conflicts between wars, as well as innovative narrative techniques. Letter grading.

211. Postwar Literature. (4) Lecture, three hours. Study of major works by German-speaking authors writing since World War II. Examination of issues such as identity crises, nationalism and divided Germany, gender expectations, and social-political attitudes. Letter grading.

212. Contemporary Literature and Culture. (4) Lecture, three hours. Analysis 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. Advanced analysis and discussion of various models of literary interpretation and schools of thought such as hermeneutics, psychoanalytic criticism, social historical approaches, semiotics, structuralism, and poststructuralism. Topics vary with instructor. Letter grading.


Phänomenologie des Geistes

109. Perspectives on the Enlightenment. (4) Lecture, three hours. Requisite: course 102A. 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, amoral mundi, moral judgment, individual or collective responsibility, violence, and literature. Letter grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4) Tutorial, three hours. To be arranged with faculty member who directs examination preparation. 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. (5) 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 modes 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, research in newspaper 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. 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. 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.

197. Directed Individual Study 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 studies (see department for ID number). S/U grading.

Gerontology Interdisciplinary Minor
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Gerontology
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E-mail contact

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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): Gerontology M108, four courses from M104C, M104D, M119O, M119X, M142SL, M150, M165, Psychology 124C, 150, and two courses from Gerontology 195, 199A, 199B.

Students who have completed Clusters 80A with a grade of B or better may petition to have the course applied toward the gerontology core course requirement. Students who have completed Clusters 80CW may petition to have the course applied toward one of the elective requirements.

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. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP, grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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 grading.

Upper-Division Courses
M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Chicana and Chicano Studies M106B, Gender Studies 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 various 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 issues. 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 Social Welfare M104E.) Lecture, four hours. Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly seminars organized around key aspect of social gerontology. P/NP or letter grading.

M108. Biomedical, Social, and Policy Frontiers in Human Aging. (6) (Same as Sociology M108.) Lecture, four hours. Limited to juniors/seniors. Course of human aging charted in ways that are based on variety of recent research frontiers. Use of conceptual framework 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 interplay between 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 individuals as they age within one particular sociocultural context. Letter grading.

M119O. Psychology of Aging. (4) (Same as Psychology M119O.) Lecture, four hours. Requisites: 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. Biological mechanisms of aging process and its terminus—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 your 20s? Do you talk to your grandparents? Does your family talk well to one another as 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 of all ages with disabilities are leading 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
Global Health

Interdisciplinary Minor
College of Letters and Science

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Los Angeles, CA 90095-1487

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Ninez A. Prince, MPP, PhD (Health Policy and Management)
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 525SL, Clusters 80A and 80B, Community Health Sciences 91, Global Studies 1, History 3D, Honors College 1, 14, 26, International and Area Studies 1, Molecular Cell, and Developmental Biology 60, 70, Nursing 50, Statistics 13, World Arts and Cultures 2, 33.

Required Upper-Division Courses (20 to 25 units): Global Health 100 and four courses from the following theme areas, with a maximum of two courses from any single area:


Biological Sciences: Psychology 179B.

Community Health: Community Health Sciences 100, 161, CM170, 187A, 187B, 195, Health Policy and Management 140, Medicine M160A, M160B, Psychiatry and Biobehavioral Sciences 175, Psychology 150.

Environmental Health: Environment 166, M167, Environmental Health Sciences 100, C185A, C185B.

Genetics: Honors College 141, Society and Genetics 162, 163.


Health Humanities and Communication: English Composition 131C, History 179A, 179B.


A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Global Health

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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.

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 policy arguments 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 international organizations play out through change 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 interdisciplinary 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.

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.
Global Jazz Studies

Interdepartmental Program
Herb Alpert School of Music

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Adjunct Professor
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Adjunct Associate Professors
Roberto Miranda, MM
Barbara Morrison, AA
Ruth Price
Michele A. Weir, MA

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 advance 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
- Interpretation of the concerns of jazz as a comprehensive practice, including its capacity to transform the musical, political, and socio-economic 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 20B or 20C (5 units), 4 units from 91E and/or 91F, 4 units from 68A through 68B and/or 91A through 91Z (except 91E and 91F); Global Jazz Studies M12A, M12B (10 units), 12 units from 71A through 71I (students must enroll in a studio each quarter); Music M6A, M6B, M6C (6 units). Each course must be completed with a grade of C or better.

Transfer Students

Transfer applicants to the Global Jazz Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one to two years of jazz studio instruction (equivalent to Global Jazz Studies 71A through 71I) and one year of musicianship (equivalent to Ethnomusicology M6A, M6B, M6C).

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

The Major

Required: 72 units from the areas below. Each course must be taken for a letter grade and be completed with a grade of C or better. Students must have an overall grade-point average of 2.0 or better. No more than eight units from upper-division tutorials (195-199) may be applied toward the degree.

Performance (24 units)—12 units of studio coursework from Global Jazz Studies 171A through 171L, 4 units of small jazz combo (Global Jazz Studies 175), 8 units of large jazz ensemble (Global Jazz Studies 176A through 176G). Students must enroll in a studio class and at least one combo or ensemble each quarter.


Scholarly foundations (24 units)—Global Jazz Studies 101, 111; one course (at least 4 units) selected from each of the following three subject areas: African American Studies 108, M150D, M158C, Global Jazz Studies M109, M119, 125A, 125B, 125C, M130, M131, 165, 188, 199, Music Industry 102, 104A, 107A, 115.

Capstone seminar and project (4 units)—Global Jazz Studies 186A, 186B.

Global Jazz Studies

Lower-Division Courses

M12A-M12B. African American Musical Heritage. (5–5) (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 from Africa and its impact on Americans; 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 and blues, soul, funk, disco, hip-hop, and symbiotic relationship between recording industry and effects of cultural politics on black popular music productions.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M25. Global Pop. (9) (Same as Ethnomusicology M25) Lecture, four hours; discussion, one hour. P/NP or letter grading. M25. Blues, Society, and American Culture. (9) (Same as Ethnomusicology M25) 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 de-
development of country, jazz, gospel, rhythm and blues, rock, hip-hop music, and other mediums. P/NP or letter grading.

M50A-M50B. Jazz in American Culture. (5-5) (Same as Ethnomusicology M50A-M50B.) Lecture, four hours; discussion, one hour. Course action not required to M50B. Surveys development of jazz in American culture. Discussion of different compositional/performance techniques and approaches that distinguish different sub-styles of jazz from one another. Emphasis on musical and verbal qualities, philosophical, and other aspects of musical development of jazz from its early years through modern jazz. Important historical social issues (segregation, World War II, Civil Rights Movement) that intersect with history of U.S. and jazz music. P/NP or letter grading. M50A. Late 19th Century through 1940s; M50B. 1940s to Present.

71A-71I. Instruction in Jazz Performance. (2 each) Studio, one hour of individual instruction. Limited to Ethnomusicology jazz studies majors. Knowledge of jazz repertoire, concepts, and techniques gained through private lessons 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 credit. Emphasis on Jazz Jazz Studies majors. P/NP or Letter grading.

71A. Trumpet; 71B. Percussion; 71C. Piano; 71D. Saxophone; 71E. String Bass; 71F. Trombone; 71G. Trumpet; 71I. Voice.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Opened as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter 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 social and cultural features that form basis for new jazz-ethnic music blends. P/NP or letter grading.

M109. Women in Jazz. (4) (Same as African American Studies M109, Ethnomusicology M109, and Gender Studies 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.

M111. Ellingtonia. (4) (Same as African American Studies M111 and Ethnomusicology M111.) Lecture, three hours. Music of Duke Ellington, his life, and far-reaching efforts. Ellington's music, known as Ellingtonia, is one of largest and perhaps most important bodies of music ever produced in U.S. Covers major contributions of Duke Ellingtonia to jazz and other music. P/NP or letter grading.

M119. Cultural History of Rap. (3) (Same as African American Studies M119 and Ethnomusicology M119.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and hip-hop culture, with emphasis on musical and verbal qualities, philosophical, and political ideologies, gender representation, and influence 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. In-depth analysis of jazz styles and repertoire intended for students with music backgrounds. Letter grading. Prerequisite: course 127A. 122A. Early Jazz to Swing Era; 122B. Bebop to Avant-garde; 122C. Jazz Sixties. 125A-125B-125C. Jazz Composition and Arranging. (2–2–2) (Formerly numbered Ethnomusicology 125A-125B-125C.) Lecture, two hours; outside study, four hours. Preparation: ability to read melodic and rhythmic notation. Investigation and exploration of musical time and musical time and rhythmic notations. Investigation of melodic and rhythmic notations. Introduction to jazz composition. Differentiation between improvisation and notated composition, as well as between compositional and improvisational settings. Letter grading. 125A. Early Jazz to Swing Era; 125B. Bebop to Avant-garde; 125C. Jazz since 1960s.

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 enforced prerequisite to 127B; course 127B with grade of C or better is enforced prerequisite to 127C. Study of jazz harmony through use of piano keyboard. Letter grading.

M128. Exploration in Rhythms. (2) (Same as Ethnomusicology M128.) Lecture, two hours; outside study, four hours. Preparation: ability to read melodic and rhythmic notation. Investigation and exploration of musical time and rhythmic notations. Investigation of melodic and rhythmic notations. Introduction to jazz composition. Differentiation between improvisation and notated composition, as well as between compositional and improvisational settings. Letter grading. 129A-129B-129C. Jazz Theory and Improvisation. (2–2–2) (Formerly numbered Ethnomusicology 129A-129B-129C.) Lecture, two 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 and professional settings. Letter grading. 129B. 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 M130.) Lecture, three hours. Recommended requisite: Ethnomusicology 129A or 299A. jazz theory and improvisation. 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.

M131. Development of Latin Jazz. (4) (Same as Music M131 and Global Jazz Studies 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.

M131. Development of Latin Jazz. (4) (Same as Music M131 and Ethnomusicology 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.

135. Selected Topics in Composition. (4) (Formerly numbered Ethnomusicology C154.) Lecture, four hours; outside study, eight hours. Evaluation of important musical concepts and approaches to enable students to develop greater compositional technique and understanding. Ways composers of jazz, European classical, and other musical genres have successfully approached use of extended compositional forms. Examination of way in which world music traditions have interfaced with jazz and other world music traditions with emphasis on musical and verbal qualities, philosophical, and political ideologies, gender representation, and influence on cinema and popular culture. P/NP or letter grading.

171A-171L. Instruction in Advanced Jazz Performance. (2 each) (Formerly numbered Ethnomusicology 171A-171L) Studio, one hour of individual instruction; outside study, seven hours. Preparation: advanced performance ability as demonstrated by audition. 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; 171I. Voice.

177A-77A. Jazz Composition. (2) (Formerly numbered Ethnomusicology 177A.) Activity, two hours; laboratory, four hours. Exploration of composition and improvisation more intensely in smaller jazz combination groups of four to eight musicians. May be repeated for maximum of 12 units. Letter grading.

176A-G. Large Jazz Ensembles. (2 each) Activity, two hours; outside practice, four hours. Larger groups of students play in large ensembles, bands, or orchestras. May be repeated for credit without limita- tion. Letter grading. 176A. Contemporary Jazz Ensemble; 176B. Charles Mingus Ensemble; 176C. UCLA Jazz Orchestra; 176D. Latin Jazz Big Band; 176E. Walt Disney Concert Hall Jazz and Intercultural Improvisation; 176F. Afro-Cuban Ensem- ble. Open enrollment.

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 consisting 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, one hour. With approval from faculty advisers, students perform or have compositions performed in one-hour recital consistent with global dimensions of major, including substantial program notes. Students who have developed alternative capstone proj- ects present work in public event comparable to recital (e.g., lecture-demonstration or lecture-recital). Letter grading.

Special Topics in Global Jazz Studies. (2 to 4) Lecture, two to four hours; outside study, up 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.

195. Community or Corporate Internships in Global- jazz studies. (2) Students must be enrolled in community or corporate internship. Limited to inter- juniors/seniors with minimum cumulative 3.0 grade- point average. Internship in supervised setting in community agency or private business related to jazz. Students meet on regular basis with instructor and provide weekly reports of their experience. May be repeated for maximum of 4 units. Individual contract with supervising faculty member required. 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 hands-on training in outreach program. Participation in theo- retical discussions of jazz education and application of these theories in elementary and secondary music and social studies classrooms. P/NP or letter grading.

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 se- nior Global Jazz Studies majors. Individual intensive study with scheduled meetings arranged between faculty member and student. Talented 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.
Scope and Objectives

The Global Studies Interdepartmental Program provides undergraduate students with a rigorous interdisciplinary 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

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 once per year, and students must apply no later than the end of fall quarter of their junior year.

Meeting the above minimums does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

Premajor

Incoming freshman and transfer students may be admitted as 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, Ethnicnomusicology 25, Gender Studies 10, Geography 3, 6, History 2B, World Arts and Cultures 20, or 33, (2) one governance and conflict course selected from History 10B, 22, Political Science 10, 20, 50, 50R, or Sociology 1, and (3) one markets and resources course selected from Economics 1, 2, Environment 12, Clusters 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 50C, 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


After successful completion of Global Studies 100A and 100B, 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. 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 199B with a grade of A– or better. Honors or highest honors may be granted at the discretion of the faculty sponsor and the faculty committee to students demonstrating exceptional ability on the senior thesis.

Global Studies Minor

The Global Studies minor offers students a multidisciplinary curriculum in the humanities and social sciences through which they can explore the complex and multifaceted interconnections that characterize the contemporary world. The minor is designed to complement and enrich studies in their major.

To enter the minor, students must (1) be in good academic standing (minimum 2.0 grade-point average) and (2) have completed Global Studies 10 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 2C, 1D or 2D, 4CWI or 4DW, Ethnomusicology 25, French 14, 14W, Gender Studies 10, Geography 3, 6, History 2B, 8A, International and Area Studies 31, Italian 42A, 42B, Middle Eastern Studies 50C, Russian 90B, 100W, Spanish 424, World Arts and Cultures 20, or 33, (b) governance and conflict—History 10B, 22, Political Science 10, 20, 50, 5OR, or Sociology 1, and (c) markets and resources—Economics 1, 2, Environment 12, Clusters M1A, or Sociology 51.


After completing Global Studies 100A and 100B, Global Studies minors are highly encouraged to participate in a summer Global Learning Institute at one of several locations around the world. The courses offered, Global Studies 110A and 110B, may be applied toward any two of the elective categories (culture and society, governance and conflict, and markets).

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Global Studies

Lower-Division Courses

1. Introduction to Globalization. (5) Lecture, three hours; discussion, one hour. Introduction to concept and history of globalization, and to political, economic, social, and environmental dimensions of global processes. May include finance and trade, colonialism, Industrial Revolution, urbanization, immigration, and climate change, among others. P/NP or letter grading.

2. International Diplomacy and Foreign Affairs. (2) Lecture, 15 hours; discussion, 15 hours. Required for high school students participating in Model United Nations (UN) Summer Institute. One-week intensive summer course, including lectures in international relations and outside study. Development of position papers in simulation of United Nations and final presentation in respective UN committees. Particular emphasis on public speaking and cooperative debate. May be repeated for credit with topic change. Offered only as part of Summer Institute. P/NP grading.

3. 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.

4. 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 instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

5. 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.

6. 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 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A. Globalization: Governance and Conflict. (5) Lecture, three hours; discussion, one hour. Enforced requisites: course 110A. Exploration of globalization of governance and its effect on world affairs, sovereignty, and international system of nation-states. Topics may also include roles of international institutions and emergence of new global actors, as well as development of global norms concerning such issues as human rights, gender equality, and human security. Letter grading.

100B. Globalization: Culture and Society. (5) Lecture, three hours; discussion, one hour. Enforced requisites: course 110A. Examination of topics in greater depth through simulation of United Nations and final presentation in respective UN committees. Particular emphasis on public speaking and cooperative debate. May be repeated for credit with topic change. Letter grading.

101A. Globalization in Context. (5) Lecture, six hours. Requisite: course 100B. Corequisite: course 110B. Culture, economy, history, and politics of different locations around world and how they are affected by globalization. May be repeated for credit with topic change. Letter grading.


- 188A-188B. Special Studies in Global Studies. (4) Seminar, three hours. Program-sponsored experimental or temporary courses, such as those taught by resident or visiting faculty members. May be repeated for credit with topic change. Letter grading.

189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor.
May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


192. Undergraduate Practicum in Global Studies. (2) Seminar, two hours; practicum, to be arranged. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to serve as undergraduate course assistants in global studies courses. Students assist in preparation and presentation of materials and development of innovative programs with guidance of faculty members. May not be applied toward major requirements. May be repeated for credit. P/NP grading.


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.


Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprentice 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
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. Facilitated 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

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Frederick J. Zimmerman, PhD

Professors Emeriti

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Barbara Berman, PhD
Diana W. Hilberman, DrPH
Robert M. Kaplan, PhD
Paul R. Torrens, MD, MPH

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Moira Inkelas, MPH, PhD

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Arlene Fink, PhD
Paul C. Fu, Jr., MD, MPH

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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 furtherance 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 graduate degrees in Health Policy and Management. For information on the MPH and graduate 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 importance, taught by faculty members in their areas of expertise and illustrating 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 Under-graduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Introduction to Health Policy and Management. (4) Lecture; four hours; discussion; one hour. Preparation: 4 units of social sciences. Structure and function of American healthcare system; issues and forces shaping its future. P/NP or letter grading.


C121. Tobacco: Prevention, Use, and Public Policy. (4) Lecture; four hours. Designed for juniors/seniors. Study of tobacco use and its health consequences, including interplay of historical, biological, sociocultural, political, and economic forces with knowledge, attitudes, and behavior choices of individuals. Introduction to prevention interventions, cessation interventions, anti-smoking efforts in U.S., and international trends in tobacco use. Concurrently scheduled with course C221. Letter grading.

M168. Healthcare for American Indians. (4) (Same as American Indian Studies CM168.) Lecture, two hours; discussion, one hour. Identification of traditional health beliefs, health practices, and healthcare systems of American Indian tribes to understand role of U.S. government in healthcare services for Indian people. Description of health problems that have affected American Indian people and definition of contemporary health issues and measures taken to raise health status of American Indian people. 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 services systems in U.S., using relevant theories, concepts, and models. S/U or letter grading.

M202. Qualitative Research Design and Methodology for Indigenous Communities. (5) 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.

203A. Applied Microeconomics. (4) Lecture, four hours. Requisite: Mathematics 3A or 3B or 31A. Course 203A is requisite to 203B. Basic concepts of microeconomics, with emphasis on their application to actual situations and their use in problem solving and focus on theory of choice. Extensive use of differential calculus. Letter grading.

203B. Applied Microeconomics. (4) Lecture, four hours. Requisite: 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 firms and markets. Extensive use of differential calculus. Letter grading.

M204A-M204B-M204C. Seminars: Pharmaceutical Economics and Policy. (1 to 2) (Same as Economics M204L-M204M-M204N.) Seminar, three hours every other week. Requisite: course M236. Limited to graduate public health and health services students. Various topics in economics of pharmaceutical industry, including rates of innovation, drug regulation, and economic impact of pharmaceuticals. In Progress (M204A, M204B) and completed (M204C). Letter grading.

205. Pharmaceutical Policy. (4) Lecture, three hours. Policy issues pertaining to pharmaceutical sector. Topics include determinants of expenditures on drugs, price setting in industry; health insurance coverage for pharmaceuticals, and research and development process. Letter grading.

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 of healthcare services that lead to vulnerability for particular population groups. Introduction to strategies that have been adopted to address these health disparities. Analysis and development of policy and management options that serve needs of vulnerable populations within healthcare system. Letter grading.

215A. Healthcare Quality and Performance Management. (4) Lecture, four hours. Preparation: completion of summer internship requirement. Management and operations of individual units and organizations of American healthcare system. Exploration of ways in which they achieve function and how to ensure their quality and effectiveness. Examination of roles, activities, and daily challenges of managers and how these challenges can best be met on day-to-day basis. Emphasis on case studies, study trips, and interorganizational collaboration benefit quality and productivity. Letter grading.

215B. Applied Methods for Improvement/Implementation Science. (4) Lecture, four hours. Enforced requisites: course 215A. Planning and management of improvement programs in current work of students and future roles as change agents and leaders of healthcare systems. Training in skills and analytic methods for improvement science in clinical settings and health systems. Completion of improvement projects that demonstrate student competence in improvement science. Emphasis on case studies and applications to gain skills in improvement project design and implementation. Analyses of cases, individual improvement projects, and class discussions to allow students to apply this knowledge to organizational settings. Letter grading.


217. Evidence-Based Medicine and Organizational Change. (4) Lecture, three hours. Requisites: courses 200A, 200B, M422. Designed for graduate students in public health, health services disciplines. Participation of students in critical review and discussion of selected papers dealing with course topics, including clinical trials, meta-analysis, small and large area variations in care, and development and implementation of clinical guidelines. Emphasis on implications for health policy. Letter grading.

221A. Tobacco: Prevention, Use, and Public Policy. (4) (Formerly numbered CM211.) Lecture, four hours. Designed for graduate and advanced undergraduate students. Study of tobacco use and its health consequences, including interplay of historical, biological, sociocultural, political, and economic forces with knowledge, attitudes, behaviors, and habits of individuals. Introduction to prevention interventions, cessation interventions, anti-tobacco efforts in U.S., and international trends in tobacco use. Concurrently scheduled with course C121. Letter grading.

225A-226B. Health Services Research Design. (6–8) Seminar, four hours. Preparation: departmental MS and PhD students. Introduction to research literature in health services research, including knowledge 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 or policy. Study of organizations or 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. Study 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.

228A. Introduction to Mixed Methods Research. (4) (Same as Community Health Sciences M228). Seminar, two lecture hours. Designed for graduate and advanced undergraduate students. Study of mixed methods research, and design of mixed methods research investigations for health issues of interest. Study of different mixed methods research designs commonly used in public health and health services research, including feasibility studies, convergent parallel design, sequential mixed methods research, and use of combination of dichotomous and applied techniques. S/U or letter grading.


232. Leadership Capstone Seminar. (4) Seminar, four hours. Preparation: completion of summer internship requirement. Designed for graduate students completing their preparation for health services management and health policy. Examination of leaders and leadership in healthcare and other organizations to provide broad introduction 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 leadership style and identify opportunities to further develop their leadership abilities. Letter grading.

233. Health Policy Analysis. (4) (Same as Community Health Sciences M233.) Lecture, three hours. Requisites: courses 100 or 200A, 200B, M236, M287. Conception and procedural tools for analysis of health policy, emphasizing role of analysis during various phases of lifecycle of public policy. Letter grading.


235. Social Change, and Health Service Policy. (4) Lecture, four hours. Preparation: two upper-division political science or sociology courses. Requisite: course 100. Legal issues affecting policy formulation for environmental, preventive, and curative health services programs. S/U or letter grading.

M236. Microeconomic Theory of Health Sector. (4) (Same as Public Policy M268.) Lecture, four hours; discussion, two hours. Preparation: intermediate microeconomics. Requisite: Biostatistics 100A. Microeconomic aspects of healthcare system, including health manpower substitution, choice of efficient modes of treatment, market efficiency, and competition. Letter grading.

237C. Issues in Health Service Methodologies. (4) Lecture, four hours; discussion, two hours. Requisites: courses 237A, 237B, Biostatistics 200A, 200B (or 201). Designed for doctoral students. Intended to train students in statistical methods used in health services research, with focus on practical application of advanced regression models. Letter grading.

239A. Special Topics in Health Services: Introduction to Decision Analysis and Cost-Effectiveness Analysis. (4) Lecture, four hours. Requisites: courses 200A and 200B, or M233. Techniques to assess broad spectrum of medical services: costs, outcomes, and diagnostic tests and procedures, clinical practice patterns, public health interventions, and pharmaceuticals. Demonstration of how decision analysis provides framework for conducting various economic evaluations. May be repeated for credit with topic change. Letter grading.

239B. Special Topics in Health Services: Advanced Topics in Decision Analysis and Cost-Effectiveness Analysis. (4) Lecture, four hours. Requisites: courses 200A and 200B, or M233. Techniques to assess broad spectrum of medical services: costs, outcomes, and diagnostic tests and procedures, clinical practice patterns, public health interventions, and pharmaceuticals. Demonstration of how decision analysis provides framework for conducting various economic evaluations. May be repeated for credit with topic change. Letter grading.


241. Economics of Health Policy. (4) Lecture, four hours. Requisite: course M236 or doctoral standing. Second-level health economics course, with emphasis on health policy applications, designed to provide an increased view of issues than does course M236. Provides more training for master’s students interested in policy, as well as material and insights for doctoral students who may find it useful in thinking about their own careers. Emphasis on special characteristics of health and healthcare and how these characteristics can result in market failure and various policy tools that can be used to correct such failures. Designed for students in developed country that has traditionally relied on private insurance, course goes into more detail on that topic. Alternative conceptual models to traditional market one, discussion of proposed U.S. reforms, and examination of systems in selected other countries. Letter grading.
Requisites: courses 200A, 200B, M236. Advanced (Same as Public Policy M266.) Seminar, four hours.

Literature in research specialty of faculty member and analysis of current topics in health policy and may be organized in special topics. Advanced study Limited to Public Health graduate students. Seminars services, ongoing therapies, and adult vocational and training may be announced in advance by department. Ad-

M234.) Seminar, three hours; outside study, one hour.

M255. Obesity, Physical Activity, and Nutrition Seminar, four hours. Requisites: course 100, Biostatistics 249S. (Same as Community Health Sciences 249S.) Introduction to Implementation Science. (4) Seminar, four hours. Preparation: good grasp of social science research methods. Designed to provide basic understanding of science of implementing innovations and interventions. Includes an overview of contexts and practice settings. Includes exposure to terminology, conceptual frameworks, research designs and methods, and their appropriate applications across various practice settings and populations. Interactive class discussion and guest lectures by experts in implementation science. S/U or letter grading.

M255. Obesity, Physical Activity, and Nutrition Seminar, 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 change. S/U or letter grading.

M252. Medicare Reform. (4) (Same as Public Policy M267.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and managerial skills learned earlier to be used to analyze problems with existing Medicare program and to develop specific options for reforming features of program to accommodate coming pressures generated by retirement of baby-boom generation. Letter grading.


M240E. Advanced Topics in Health Economics. (4) (Same as Public Policy M266.) Seminar, four hours. Requisites: courses 200A, 200B, M236. Advanced treatment of common topics in health policy, health financing, and organization and administration of health services. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change.

M249E. Advanced Topics in Health Economics. (4) (Same as Public Policy M266.) Seminar, four hours. Requisites: courses 200A, 200B, M236. Advanced treatment of number of topics in health economics, including mental health economics, pharmaceutical economics, and relationship between labor supply, welfare, and health. Letter grading.

M287. Politics of Health Policy. (4) (Same as Community Health Sciences M287.) Lecture, three hours; discussion, one hour. Requisites: courses 200A and 200B, or Community Health Sciences 210. Examination of politics of health policy and an analysis of effects of political structure and institutions; economic and social factors; interest groups, classes, and social movement; media and public opinion; and other factors. Letter grading.

288. Role and Impact of Technology on Health Services. (4) Lecture, four hours. Examination of role and impact of technology on health services in the U.S. From point of view of system itself. Exploration of various types of technology for their policy, economic, and organizational impact. S/U or letter grading.

M288. Role and Impact of Technology on Health Services. (4) Lecture, four hours. Examination of role and impact of technology on health services in the U.S. From point of view of system itself. Exploration of various types of technology for their policy, economic, and organizational impact. S/U or letter grading.

M289. Evolving Paradigms of Prevention: Interventions in Early Childhood. (4) (Same as Community Health Sciences M287.) Seminar, three hours; fieldwork, one hour. Designed for graduate students. Introduction to use of early childhood interventions as means of preventing adverse health and developmental outcomes. Concepts of developmental vulnerability, approaches to prevention, models of service delivery, evaluation and cost-effectiveness issues, and other policy issues. 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.


M411. Issues in Cancer Prevention and Control. (4) (Same as Community Health Sciences M411.) Lecture, four hours. Designed for juniors/seniors and graduate students. Introduction to causes and characteristics of cancer control goals for nation, and interventions designed to encourage smoking cessation/prevention, cancer screening, and other dietary, psychosocial, and lifestyle changes.
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.


423. Advanced Evaluation Theory and Methods for Health Services. (4) Lecture, four hours. Designed for departmental MS and PhD students. Familiarity with current theories and evaluation to develop skills in integrating theory into program implementation and evaluation design. Development of student ability to apply various evaluation methodologies most appropriate for evaluating changes both inside and outside health care and public health, and consideration of advantages and disadvantages of potential design. Examination of shift in field of evaluation over past decade from program evaluation to higher levels of evaluation (i.e., internal validity) to more balanced approach considering efficacy in content of feasibility, reach, cost, and sustainability (i.e., external validity) and evaluation design features (e.g., pragmatic and adaptive trials). Letter grading.


M428. Child and Family Health Program Community Leadership Seminar. (Same as Community Health Sciences M428.) Seminar, two hours. Designed for graduate students. Examination of characteristics of community-based organizations (CBOs) and role of leadership in decision-making process involved in major issues facing maternal and child health in Los Angeles County. Focus on specific leadership competencies that are or should be employed by organizations effective in shaping maternal and child health programs and policies (or any population-level policies and programs). Leaders from CBOs in Los Angeles meet with students, comment on their practice, discuss their experiences, and undergo community leadership concepts demonstrated by those CBOs. S/U or letter grading.


431. Organizational Behavior and Human Resources in Healthcare Organizations. (4) Lecture, four hours. Managerial skills and behaviors applied to components of organizations at several levels: individual, interpersonal, group, intergroup, and system. Core human resources skills required by managers. Unique features of health services organizations stressed as applications are presented. Letter grading.


M434. Building Advocacy Skills: Reproductive Health Focus. (4) Same as Community Health Sciences M434.) Seminar, three hours. 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 competence 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 obtaining development of 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.


438. Issues and Problems of Local Health Administration. (4) Lecture, three hours. Preparation: one health services course, 100, Epidemiology 100. Overview of administrative issues currently faced by local health departments, including problems facing local health department during formal or informal constraint, quality improvement, interagency relationships and partnerships, and political and public interactions. Letter grading.

440A. Healthcare Information Systems and Technology. (4) Lecture, four hours. Preparation: completion of summer internship. Provides strong foundation in health information technology (HIT) for those working in healthcare, with emphasis on development of knowledge and skill to plan, manage, and implement 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 records (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 administration research using medical 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 agencies. Introduction to principles of sampling; 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.


M449A-M449B. Child Health, Programs, and Policies. (4-4) (Same as Community Health Sciences M436A-M436B.) Lecture, four hours. Requisite: course 100. Course M449A is requisite to M449B. Examination of history of child health policy trends and determinants of health, structure, and function of health service system; needs, programs, and policies affecting especially at-risk populations. 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. No more than 8 units may be applied toward master’s degree minimum total course requirement; may not be applied toward minimum graduate course requirement. 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 or 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 minimum total course requirements. May be repeated for credit. S/U grading.

598. Master’s Thesis Research. (2 to 8) Tutorial, to be arranged. Only 4 units may be applied toward Master’s degree minimum total course requirement; may not be applied toward minimum graduate course requirement. May be repeated for credit. S/U grading.
The course offerings in the Department of History at UCLA are designed to bring about an understanding of the forces that have shaped the many cultures of this country and the world. UCLA has one of the largest, most distinguished, and most diverse history faculties in the country. Its main emphasis is on the many aspects of social history; but intellectual, cultural, and political history are also strongly represented.

Of all undergraduate majors, History is probably the most flexible and far-reaching. Leading to a Bachelor of Arts degree, it is excellent preparation for a wide variety of careers—law, teaching, business, the communications media, public services, and medicine.

The graduate program leads to the PhD degree in History (a master’s degree may be earned in the process of completing PhD requirements). Traditionally, the MA and PhD in History have led to careers in high school, college, and university teaching. Increasingly, they are also being put to use in government service, international business, museum and archival work, and journalism.

Undergraduate Study

The History major is a designated capstone major. Undergraduate students take a capstone seminar in which they demonstrate mastery of a specialized area of history and a critical understanding of current scholarly concerns, literature, and debate, then design and complete a research project using those primary sources and literature.

History BA

Capstone Major

The History Department undergraduate program consists of 16 courses in history (six lower-division—the preparation for the major, including the 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 on research

Premajor

Required: Three courses, including two in Western civilization (History 1A, 1B, 1C) or two in world history (courses 20, 21, 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 at the undergraduate counselor's office in 6248 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 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: 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, and (4) one capstone seminar from the History 191 series.

The requirements for U.S., non-Western, and European history may be fulfilled with either upper or lower-division courses, but majors are required to take a minimum of 10 upper-division history courses.

There is no language requirement for the major; however, students wishing to enter the honors program or planning to do graduate work in history are urged to pursue language study early in their undergraduate careers.

Advanced Placement Credit in History

Effective fall quarter 2002 for entering freshmen, no course credit is granted for any AP credit in History. Effective fall quarter 2002 for entering freshmen, no course credit is granted for any AP credit in History.

Honors Program

The honors program is designed for History majors who are interested in completing a year-long research project that culminates in an honors thesis. A 3.5 departmental grade-point average is required for admission. To graduate with departmental honors, students must have a cumulative or overall GPA of at least 3.0 in all University-level coursework and at least a 3.5 GPA in all coursework required for the major.

The honors thesis must be completed in three terms, on the basis of work carried out in History 198A, 198B, and 198C. Students must register their intention to undertake an honors thesis with the undergraduate affairs vice chair no later than spring quarter of their junior year. When students register for honors, they must provide the undergraduate affairs vice chair with a two-paragraph description of their thesis project, which must be approved in writing by the faculty member who agrees to act as their adviser. The undergraduate affairs vice chair must also approve the proposed project in writing.

The faculty adviser is primarily responsible for guiding the thesis work to its completion and assigns grades for the honors courses after the thesis is complete. The honors thesis should be 40 to 60 pages in length and be based on primary source material. Determination of the level of honors awarded (no honors, honors, or highest honors) is made by the undergraduate affairs vice chair, acting in conjunction with the honors committee, at the end of the term in which the thesis is completed.

History Minor

The History minor introduces students to historical processes and institutions.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in the Undergraduate office, 6284 Bunche Hall.

Required Lower-Division Courses (10 units):

Any two lower-division history courses.

Required Upper-Division Courses (20 units):

Any five upper-division history courses. At least three of the five courses must be taken in residence at UCLA.

A maximum of 4 units of special studies courses (199) approved by the adviser and a maximum of 4 units of capstone seminars (191) may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

History of Science and Medicine Minor

The History of Science and Medicine minor is designed for students who wish to augment their major, perhaps in one of the sciences, with a series of courses that analyze the historical growth, impact, and significance of science and medicine in Western and world culture. The minor consists of a choice of lower-division courses that expose students to views of science and medicine in large time periods or to specific thematic concerns. Upper-division courses offer more focused and often smaller classes that explore crucial episodes or areas with a more rigorous and sophisticated content and methodology.

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 the minor adviser in 6265 Bunche Hall.

Required Lower-Division Courses (12 units):

Three courses from History 2B, 3A through 3D, Philosophy 8.

Required Upper-Division Courses (20 units):

Five courses from Anthropology 100, History 179A through 180C, any upper-division honors collegium courses with history of science or history of medicine content, Philosophy 124.

Each year certain undergraduate seminars in the History 191 sequence are designated as applicable to the upper-division minor requirements. Students may also petition to have other relevant courses, including those from other departments, applied toward the upper-division requirements.

At least one upper-division course, to be selected and approved in consultation with the undergraduate or faculty adviser, must involve writing a research or interpretative paper of significant length and intellectual content. Transfer credit for courses may be subject to departmental approval.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

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 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 worlds of Greeks and Romans. Examination of ways in which western European societies created new...
synthesizes through selective appropriation of Greek and Roman cultures and introduction of new cultural forms. P/NP or letter grading.

1A. 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 AD 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. Found social, political, cultural, and intellectual changes that affected development of modern world. Topics covered include economic, social, and cultural aspects of feudal system; relationship between Church and empire; new religious movements (including the Reformation); formation of nation-states; relationship between Western Europe and non-European and non-Christian people and traditions. P/NP or letter grading.

18B. Introduction to Western Civilization: Circa AD 843 to circa 1715 (Honors). (5) Lecture, three hours; discussion, two hours. Honors sequence parallel to course 1B. P/NP or letter grading.

1C. Introduction to Western Civilization: Circa 1715 to Present. (5) Lecture, three hours; discussion, one hour. Introduction to history of the West and its connections to rest of world after 1715, during period of sweeping political, social, and cultural tensions and transformations. Topics covered include industrialization, rise of nationalism and mass politics, religion, philosophy, science, economic, social, and cultural aspects of national self-consciousness, and major international rivalries involving traditional empires. P/NP or letter grading.

1CH. Introduction to Western Civilization: Circa 1715 to Present (Honors). (5) Lecture, three hours; discussion, two hours. Honors sequence parallel to course 1C. P/NP or letter grading.

2B. Social Knowledge and Social Power. (5) Lecture, three hours; discussion, two hours. History of social knowledge and social power in the 19th and 20th centuries. Everyday ideas and practices about human nature, common sense, and community and relation of those practices to social thought, social engineering, and social science. Themes include development of social knowledge through public activities and professional science. 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 Modern Science; Mystics, Heretics, Magicians, and Mystics, Western Traditions, From 1000 to 1600. (5) Lecture, three hours; discussion, two hours. Specific aspects of elite and popular culture in medi eval and early modern Europe. Manner in which men and women sought to explain, order, and escape terror of their lives by embracing transcendental religious experiences and dreaming of apocalypse and witchcraft. Examination of experiences in context of genesis of the state, birth of a new science, and economic and social change. P/NP or letter grading.

3A-3B-3C. History of Science. (5–5–5) Lecture, three hours; discussion, two hours. History majors may not apply these courses on science general education requirements. P/NP or letter grading.

3A. Renaissance to 1800. (5) Lecture, three hours; discussion, two hours. Survey of beginnings of physical sciences involving transformation from Aristotelian to Newtonian cosmology, mechanization of natural world, rise of experimental science, and origin of scientific societies. P/NP or letter grading.

3B. Enlightenment to 1900. (5) Lecture, three hours; discussion, two hours. This period science became part of Enlightenment campaign for reason and of culture of an Industrial Revolution. New social science and evolutionary debates about science and religion demonstrate its rising intellectual and practical significance. P/NP or letter grading.

3C. 20th Century. (5) Lecture, three hours; discussion, two hours. Ranging from starting new physics of relativity and the quantum, and of nuclear weapons, to molecular reductionism in biology and campaigns for statistical objectivity, examination of involvement of science in technology, military, intellectual, and political changes of the 20th century. P/NP or letter grading.

3D. History of Modern Medicine. (5) Lecture, three hours; discussion, two hours. Examination, through historical lens, of medical science and practice of primary sources, of five important themes in development of modern medicine: nature of diagnosis, emergence of surgery, epistemics, conception and treatment of insanity, and use of medical technology. P/NP or letter grading.

4M. Introduction to History of Religions. (Same as Religion 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.

5. Holocaust: History and Memory. (5) Lecture, three hours; discussion, two hours. Holocaust, murder of six million Jews by Germans in Nazi-occupied Europe during World War II, is one of crucial events of modern history. Examination of origins of Holocaust, perpetrators and victims, and changing efforts to come to terms with this genocide. Exploration of forces that led to Holocaust, including emergence of scientific racism, anti-Semitism, and machinery of modern science. Development and implementation 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. (5) Lecture, three hours; discussion, two hours. General introduction to Latin American history. Study of period to independence (1490s to 1820s), with emphasis on convergence of Native American, European, and African cultures in Latin America; issues of ethnicity and gender; developmental strategies and social classes; and emergence of local and national identities. Readings focus on writings of Latin American men 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. Historical overview of Latin American history after independence, region that includes Mexico, Central and South America, and Caribbean. Formation of independent nations state 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 illustrative of a theme in social history. P/NP or letter grading.

8GH. Latin American Social History (Honors). (5) Lecture, three hours; discussion, two hours. Honors course parallel to course 8C. P/NP or letter grading.

9A-9E. Introduction to Asian Civilizations. (5 each) Lecture, three hours; discussion, two hours. P/NP or letter grading.

11A. History of India. (5) Lecture, three hours; discussion, two hours. P/NP or letter grading.

9C. History of Japan. (5) Lecture, three hours; discussion, two hours. Survey of Japanese history from earliest recorded time to present, with emphasis on development of Japan as a cultural daughter of China. Attention to manner in which Chinese culture was Japanized and aspects of Japanese civilization which became unique. Creation of the modern state in the late century and impact of Western civilization on Japanese culture. P/NP or letter grading.

9CH. History of Japan (Honors). (5) Lecture, three hours; discussion, two hours. Honors course parallel to course 9C. P/NP or letter grading.

9D. History of Middle East. (5) Lecture, three hours; discussion, two hours. Overview of a region profoundly shaped by its wet tropical environment and divided by great religious, cultural, and political pluralism, with focus on Vietnamese, Thai, Filipino, Khmer, Burmese, and Malay-Indonesian patterns. P/NP or letter grading.

M10A-10B. History of Africa. (5–5) P/NP or letter grading. M10A. To 1800. (Same as African American Studies M10A.) Lecture, three hours; discussion, one hour. Exploration of development of African societies from earliest times to 1800. Focus on slave trade, imperialism and colonialism, and nation- alism and independence. Attention to different ideologies (nationalism, socialism, apartheid), rural/urban tensions, changing role of women.

10BH. Introduction to Civilizations of Africa (Honors). (4) Lecture, three hours; discussion, two hours. Not open for credit to students with credit for course 108B or 108W. Survey of social, economic, and political developments in Africa since 1800, with focus on slave trade, imperialism and colonialism, and nationalism and in- dependence. Attention to different ideologies (nationalism, socialism, apartheid), rural/urban tensions, changing role of women. P/NP or letter grading.

10BW. Introduction to Civilizations of Africa since 1800. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 10B or 108W. Survey of social, economic, and political developments in Africa since 1800, with focus on slave trade, imperialism and colonialism, and nationalism and independence. Attention to different ideologies (nationalism, socialism, apartheid), rural/urban tensions, changing role of women. Four papers required. Satisfies Writing II requirement. Letter grading. 10BH, 10BW.

11A-11B. History of China. (5–5) Lecture, three hours; discussion, one hour. P/NP or letter grading.


11AH-11BH. History of China (Honors). (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. To 1000 to 1590 (Honors).
21C. Inequality: Global History of Anti-Colonial Thought and Practice (3) 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 contemporary resistance. Readings include: Frantz Fanon, Ho Chi Minh, Toton Miyazaki, Césaire, Frantz Fanon, Ho Chi Minh, Totten Miyazaki, Sun Yat-Sen, Shusui Kotsoku, Malcolm X, Che Guevara, and Mahatma Gandhi. Use of dialogue to reveal and reflect on commonalities and differences of thinker/activist pairs. Historical background for each thinker and active engagement in interpretation and discussion of texts. Project group as way to reflect on current context of social justice and organizing.

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 most advanced courses in history of any region bordering on Atlantic during period from 1500 to 1900. Exploration of idea of Atlantic world and few of major historical trends that shaped its history, including migration, slavery, imperial conquest, and nation-building. Attention to cultural heritage, political institutions, economic developments, and social interactions which created contemporary society. P/NP or letter grading. 13A. Colonial Origins and First Nation Dization. Combination 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 militancy. 

19. Fiat Lux Freshman Seminars. (1) Seminar, three hours; discussion, one hour. Beginning of World War II, historical analysis from rise of Islam to start 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 the world today, and prepare them for more in-depth work in history of specific regions or countries of the world. P/NP or letter grading.

98. 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. Culminating project may be required. P/NP or letter grading.

88GE. Sophomore Seminar: Special Topics in History. (5) Seminar, four hours. Requisite: designated GE lecture course; see Schedule of Classes for specific requisite lecture and seminar topics. Designed for sophomores/juniors. Exploration of aspects of lecture topic through readings, images, and discussions. 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. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings. Maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

94. What is History? An Introduction to Historical Thinking and Practice. (4) Lecture; two hours; discussion, two hours. What is history, who is it that we study, how do we study, and why should we study history? Introduction to basic principles of historical inquiry. 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 matters, including site visits. P/NP or letter grading.

96W. Introduction to Historical Practice. (5) Seminar, three hours. Enforced requisite: English Composition 3 or 1H or English as a Second Language 36. Not open for credit to students with credit for former course 99W. Introduction to study of history, with emphasis on historical theory and research methods. Satisfies Writing II requirement. Letter grading.

97. Historical Practices Adjunct Seminar. (1) Seminar, one hour. Required for students who have taken History 97A through 97O. Limited to History majors. Exploration of topics covered in courses 97A through 97O in greater depth through supplemental readings, discussions, or other activities. P/NP grading.

97A-97O. Introduction to Historical Practice: Variable Topics. (4 each) Seminar, three hours. Discussion classes of no more than 15 students. Introduction to study of history, with emphasis on historical theory and research methods. Variable topics cover the full range 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.
Greater Mesopotamia in 4th and 3rd millennium BCE, with focus on rich cultural history of region and integration of archaeological, art historical, and written records. P/NP or letter grading.

104C. Babylonians. (4) (Same as Ancient Near East M104C.) Lecture, three hours. Designed for juniors/seniors. Survey of Babylonian and cultural history of region from late 3rd millennium BCE to invasion of Cyrus in 539 BCE, with focus on history and archaeology of region, urban structure, literature, and legal and political history. P/NP or letter grading.

104D. Assyrians. (4) (Same as Ancient Near East M104D.) Lecture, three hours. Designed for juniors/seniors. Overview of Assyrian cultural history from its origins to its violent destruction in 612 BCE. Focus on rise of Assyria and its expansion to Greater Mesopotamia in 4th and 3rd millennia BCE, with focus on rise, mechanics, and decline of Neo-Assyrian 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. (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Background and circumstances of rise of Islam, one hour (when scheduled). Designed for juniors/seniors. Perspective from Zagros to Egypt. P/NP or letter grading.

112D. History and Monuments of Ancient Greece: Field Study. (4) (Same as Classics M114B.) Fieldwork, five hours. Enforced corequisite: course M112C. Examinations of ruins of ancient Greece through daily lectures and field walks to museums and architectural sites. Field trips outside Rome to Pompeii, Hadrian’s Villa, and ancient Ostia. Reception and ruins of Roman antiquity in medieval, Renaissance, and modern eras explored in their historical context. Part of UCLA Summer Travel Program. P/NP or letter grading.

113A-113B. History of Ancient Greece. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 113A. Rise of Greek City-State. Emphasis on archaic period and early classical periods through Persian Wars. 113B. Classical Period. Clash between Athens and Sparta, consequent rise of Macedonia, and aftermath of Alexander the Great.

114A-114B-114C. History of Rome. (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 114A. To Death of Caesar. Emphasis on development of imperialism and on constitutional and social struggles of late republic, with focus on Death of Caesar to Time of Constantine. Early empire treated in more detail, supplemented by survey of social and economic changes in 3rd century. 114C. Transformations of Classical World. Emphasis on religious history of Mediterranean in late antiquity, crises of Roman Empire in 3rd century to barbarian and Arab invasions and beginning of medieval states and societies in 7th century.

115. Topics in Ancient History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to topics in Greek and Roman history, including Roman law, ancient Greek and Roman slavery, world of Caesar Augustus, Greek democracy, and Alexander the Great. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.


116C. Power and Imagination in Byzantium. (4) (Same as Classics M170C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to topics in Greek and Roman history, including Roman law, and ancient Greek and Roman slavery; world of Caesar Augustus, Greek democracy, and Alexander the Great. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

119A-119B. Medieval Europe. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Basic introduction to Western Europe from Latin antiquity to age of discovery, with emphasis on medieval use of Greco-Roman antiquity, history of manuscript book, and growth of literacy. P/NP or letter grading. 119A. 400 to 1000; 119B. 1000 to 1500.

119C. Medieval Civilization: Mediterranean Heartlands. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Western Mediterranean Europe, social/economic/cultural within political framework, including its relationship with other cultures. P/NP or letter grading.

119D. Topics in Medieval History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Basic introduction to Western Europe from Latin antiquity to age of discovery, with emphasis on medieval use of Greco-Roman antiquity, history of manuscript book, and growth of literacy. P/NP or letter grading.
120A-120B. East-Central Europe, (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

120A. Long 19th Century, 1780 to 1914. Analysis of characteristics of peripheral 19th-century capitalism, effort to make sense of it, and consequences of its partial failure in economy, politics, and culture. 120B. Short 20th Century, 1918 to 1989. Analysis and interpretation of stormy history of crisis zone of Europe where wars, revolts and revolutions, and different types of extremisms led to historical detour. 70 years of departure from Western values and back to them.

120C. East-Central Europe in Transition, 1988 to 1993. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. State-socialism and Soviet domination collapsed in East-Central Europe and transformation and consequences of collapse, as well as road of transformation in seven (now 12) countries of region; international circumstances and domestic political, social, and economic processes. Ideology of transition versus reality of democratization, marketization, and privatization; free choice versus determinant factors. Scenarios for future. P/NP or letter grading.

120D. Film and History: Central and Eastern Europe, 1945 to 1989, (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Postwar history of central and eastern Europe (1945 to 1989), using eight Czech, Polish, and Hungarian films that reflect under state socialist modernization dictatorship. P/NP or letter grading.

121A-121F. History of Modern Europe. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

121A. Renaissance and Reformation, 1450 to 1660. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Reorganization of popular forms of representation, and discussions about rule and obedience in Europe from mid-15th through 16th century; popular culture; peasant society; refashioning of religion and power; localization. P/NP or letter grading.

121B. Baroque Culture and Absolutist Politics, 1650 to 1715. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Changing nature of state and social domination; redeployment of military; violence of strategies of population discipline; absolutism and baroque culture; new forms of bureaucratic intervention; representation of family, sexuality, and body; witch persecutions. P/NP or letter grading.

121C. Old Regime and Revolutionary Era, 1715 to 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Enlightened absolutism and reform, challenge of new political and economic ideas; crisis of Old Regime, impact of French Revolution and Napoleonic empire. P/NP or letter grading.

121D. Bourgeois Century, 1815 to 1914. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Restoration politics, Industrial Revolution, usurpations of 1848, unification of Germany and Italy, imperialism, rise of socialism, populism, and new social structure, origins of World War I. P/NP or letter grading.

121E. Era of Total War, 1914 to 1945. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. World War I, interwar period, and World War II. Social, cultural, political, and economic aspects, with focus on strain between model of parliamentary democracy and dynamics of mass politics. French, Italian Fascism, Nazi Germany, and Spanish Civil War. P/NP or letter grading.

121F. World War II and Its Aftermath, 1939 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. World War II, origins of Cold War, reconstruction in West, de-Stalinization, decolonization, crises of welfare state, background to and course of 1989 revolutions, current political configuration. P/NP or letter grading.

122A-122F. Cultural and Intellectual History of Modern Europe. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Cultures of taste and climates of opinion, Educational, moral, and religious attitudes; art, architecture, philosophy, and society of period in historical context. P/NP or letter grading. 122A. 15th Century. Renaissance culture and intellectual history of Europe. Central themes include comparative history of ideas, the creative flowering of late classical and religious humanism, religious experience, and new cultural genres of history and philological scholarship. 122B. 16th Century. 1220, 16th Century. M122E. 19th Century. (Same as Art History M127C) 122F. 20th Century.


125A. Baroque and Enlightenment Germany. (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 Baroque to end of Napoleonic Wars. Consideration of absolutism as political system, and baroque and Enlightenment cultures as new discourses on power and hierarchy. P/NP or letter grading.

125B. Nationalism and Modernization in 19th-Century Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problems of class society and state formation, emancipation, assimilation, growth of national consciousness, emergence of bourgeois public sphere, dynamics of gender in civil society and political life, post-Napoleonic tensions between reform and reaction, 1848, and national unification. P/NP or letter grading.

125C. 20th-Century Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Transitions that Germany has faced during this century; two world wars, shift from monarchy to republic to national socialism to divided nation, and finally reunification. Consideration of political, social, economic, and cultural spheres. P/NP or letter grading.

125D. History of Low Countries. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of aspects of Dutch history on occasion of Belgian 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 1815, Netherlands and Belgium in context of Europe after 1845. P/NP or letter grading.

126. Europe in Age of Revolution, circa 1775 to 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Period from revolt of Thirteen Colonies to French Revolution of 1789, and Napoleonic regime, viewing social and political changes unleashed by these revolutionary movements in comparative and transnational perspective. P/NP or letter grading.

M127A-127D. History of Russia. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 127A. Origins to Rise of Muscovy. (4) (Same as Russian M118) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Kievan Rus and its cultural development of frontier peoples and towns; Mongol invasion; unification of Russian state by Muscovy, Autocracy and its Servitors; serfdom. P/NP or letter grading.

127B. Imperial Russia from Peter the Great to Nicholas II. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Westernization of state and society; centralization at home and expansion abroad; peasant problem; beginnings of industrialization; movements of political and social protest; non-Russian peoples; political reforms and social changes; Revolution of 1905; Russia in World War I; fall of old regime. P/NP or letter grading.

127C. Revolutionary Russia, 1914 to 1917. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Revolutions of 1917, Civil War, consolidation of Bolshevik Regime; success of crisis and ascendance of Stalin, collectivization and industrialization; foreign policy and World War II; death of Stalin, de-Stalinization, developments since; stagnation or stability? P/NP or letter grading.

127D. Culture and Society in Imperial Russia, (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 127A. 1530 to 1648. 127B. 1648 to 1715. 127C. 1715 to 1825. 127D. 1825 to 1917. (Same as Art History M127D) Recommended preparation: course 127B or Russian 90A or 119. Designed for juniors/seniors. Thematic examination of culture and society in Russia during era of state-sponsored Westernization (1689 to 1917). Topics include nobility, peasantry, and village life from serfdom to postserfdom era, urban society, working-class life and thought, women, clergy, political, economic, social, diplomatic, and ideological developments.

127E. Social History of Spain and Portugal. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 129A. Age of Silver in Spain and Portugal, 1479 to 1789. Development of popular history in Iberian Peninsula. Emphasis on peasants and urban history, gold routes, slave trade, history of women, and development of different types of collective violence. 129B. Revolution in Modern Spain and Portugal, 1789 to Present. Spain's position in Europe and its potentials for social change discussed through investigations of urban history, agrarian social structure, history of women, problems of slow industrial development, imperialism, anarchism, and labor history.

130. History of European Political Thought. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 127A. Origins to Rise of Muscovy. (4) (Same as Russian M118) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Pe-
131A-131B, Marxist Theory and History. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Course 131A is generally required to 131B. Designed for juniors/seniors. Introduction to Marxist philosophy, historical development of competing Marxist analyses of transition from feudalism to capitalist economy via reading Capital; theory of politics and state in relationship to historical interpeter, 20th-century European revolutions; capitalist crises. P/NP or letter grading.

132. Topics in European History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Integrated introduction to important aspects of European history, with emphasis on specific topic within broad framework. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M133A-M133B, History of Women in Europe. (4-4) (Same as Women’s Studies M133A-M133B) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of social, political, and cultural role of women in Western Europe from Middle Ages to present. P/NP or letter grading. M133A. 800 to 1715; M133B. 1715 to Present.

M133C, History of Prostitution. (4) Same as Gender, Women’s, and Sexuality Studies M133C. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of prostitution from ancient times to present. Topics include toleration in medieval Europe, impact of syphilis, birth of courtesans, regulation in France and England, white slavery scare in contemporary global sex trade. Readings include novels, primary sources, and testimony by sex workers. P/NP or letter grading.

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 economic, political, and social forces, institutions, and groups in period of great change. Emphasis on interaction of national and global framework for mass circulation of people, ideas, goods, wealth, and politics, as well as responses to that alteration. P/NP or letter grading.

135A. Industrial Revolution and Postcolonialism, 1870 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of major European events and trends and their impact on world in modern period. Interrelationship of European economic, political, and social history from invention of Africa to founding of India and Pakistan. Global consequences of Cold War and new place of Europe in world. 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 state and market roles in shaping ideas and political responses. 136B. Tudor Stuart Times, 1485 to 1715. Political, socioeconomic, religious, and cultural history of Britain under Tudors and Stuarts. Topics include Reformation, transition to mercantile economy, development of overseas colonies, 17th-century 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 in politics to advent of mass democracy in mid-Victorian era. Themes include society change under pressure of industrialization, emergence of British Empire, loss of America, shifts in religious and social position. 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. Political and economic development of British Empire, including evolution of colonial nationalism, development of commonwealth idea, and changes in British colonial policy. P/NP or letter grading.

138A. Colonial America, 1600 to 1763. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of moldering of American society in English North America from 1600 to 1763. Topics include three converging cultures: Western European, West African, and American Indian. P/NP or letter grading.

138B. Revolutionary America, 1760 to 1800. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Inquiry into origins and consequences of American Revolution, nature of revolutionary process, creation of constitutional national government, development of capitalist economy. P/NP or letter grading.

139A. U.S., 1875 to 1900. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Rise of sectionalism, antislavery crusade; formation of Confederate states; war years; political and social reconstruction. P/NP or letter grading.

139B. U.S., 1875 to 1900. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Rise of sectionalism, antislavery crusade; formation of Confederate states; war years; political and social reconstruction. P/NP or letter grading.

140A-140B-140C, 20th-Century U.S. History. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. American political, social, and institutional history in 20th century. Emphasis altering concepts of role of government and responses to that alteration. P/NP or letter grading.


141A-141B, American Economic History. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 141A. 1790 to 1910. Roles of economic forces, institutions, individuals, and groups in promoting or impeding effective change in American economy from 1790 to 1910. During this period technical skeleton of modern industrial structure was formed. Why and how American economy evolved into dual economy, characterized by center of firms large in size and influence and periphery of smaller firms. 141B. 1910 to Present. Dynamics of change in dual economy, with focus in greater detail on interrelationships between macro and micro developments in economic and on growing interdependence between U.S. and world economy from 1910 to present.

142A-142B, Intellectual History of U.S. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Rise of nationalism, antislavery crusade; formation of Confederate states; cultural and intellectual context that goes well beyond foreign relations and other aspects of American culture. P/NP or letter grading.

142D. American Popular Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Recapitulates economic, social, and cultural transitions in period of great change. Emphasis on interaction of national and global framework for mass circulation of popular cultural expressions, as well as arrival of new technologies that enabled that development. P/NP or letter grading.

143A. Origins and Development of Constitutionalism in U.S. Particularly emphasis on development of Supreme Court, due process revolution, Court and political questions, and fact of judicial supremacy within self-prescribed limits.

144. American in World. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of American cultural history since 1865, with emphasis on historical development of urban, consumer-oriented American mass culture that enveloped diverse cultures of Americans as producers and consumers. Historical development of American popular culture according to changing set of political, economic, and social circumstances. Evolution of national and international mass circulation of popular cultural expressions, as well as arrival of new technologies that enabled that development. P/NP or letter grading.

M142C. History of Religion in U.S. (4) (Same as Religion M142C) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of American cultural history since 1865, with emphasis on historical development of urban, consumer-oriented American mass culture that enveloped diverse cultures of Americans as producers and consumers. Historical development of American popular culture according to changing set of political, economic, and social circumstances. Evolution of national and international mass circulation of popular cultural expressions, as well as arrival of new technologies that enabled that development. P/NP or letter grading.
phasis on mastery of facts and chronology, and awareness of major theoretical issues and fundamental concepts in urban history. 145B. Topics in U.S. Urban History. Exploration of one aspect of U.S. urban history in depth without having to attend to basic chronology or geography. Topics include crime and police, urban economics, and urban government. Students do primary research papers based on local materials in addition to written examinations. May be repeated up to a maximum of 16 units with topic and/or instructor change.

146A-146B. American Working Class Movements. (4–4) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. Major episodes in social, trade union, and cultural history of American working class from Colonial times to present, with emphasis on both organized and unorganized labor, history of Knights of Labor, AFL-CIO, and development of labor politics. P/NP or letter grading.

146C-146D. U.S. and Comparative Immigration History. (4–4) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. Major episodes in social, trade union, and cultural history of American working class from Colonial times to present, with emphasis on both organized and unorganized labor, history of Knights of Labor, AFL-CIO, and development of labor politics. P/NP or letter grading.


147E. History of Defeas Communities in America. (4) Same as American Sign Language 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). Major events include developments of deaf people, including development of sign language, deaf education, audism, political deafness, ecologies, deaf revolution movements, and role of hearing technology. Historical development of education, language and culture, growth, and survival of America's deaf community and development of deaf identity over time. P/NP or letter grading.

148. Introduction to Public/Applied History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. General survey of historical definitions of, and debates about, public and applied history, that is, history-in-non-academic sector. Examination of historical periodization and geographic regions. Survey supplemented with case studies drawn from historical research used to inform museum exhibits, policy, historic conservation, intergovernmental projects, and documentary and popular media productions. Through assigned readings, analytical writing, and collaborative research, students engage with different historical approaches. P/NP or letter grading.

149A–149B. North American Indian History. (4–4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of Native American peoples. Topics to present, with emphasis on historical dimensions of culture change, Indian political processes, and continuity of Native American cultures. Focus on selected Indian peoples in each period. P/NP or letter grading. 145A. Precontact to 1830; 149B. 1830 to Present.

150A. Comparative Slavery Systems. (4) Same as African American Studies M150A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of slavery experiences in various New World slave societies, with emphasis on outlining similarities and differences among legacies of forced labor in North America, Caribbean, and Latin American slave societies. P/NP or letter grading.

150B–150C. Introduction to Afro-American History. (4–4) Same as African American Studies M150B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Afro-American 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 realms. P/NP or letter grading.

150D. Recent African American Urban History: Funk Music and Politics of Black Popular Culture. (4) Same as African American Studies M150D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of musical genre known as funk that emerged in its popular form during late 1960s and reached popular high point, in black culture, during 1970s. Funk, fusion of gospel, blues, jazz, rhythm and blues, soul, rock, and many other musical styles, offer students unique window into recent African American history. P/NP or letter grading.


151A. History of Chicano Peoples. (4) Same as Chicana and Chicano Studies M151A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey lecture course on historical development of Mexican (Chicana) community and people of Mexican descent (Indio-Mestizo-Mulato) from contact to present. P/NP or letter grading.

151B. History of Chicano Peoples. (4) Same as Chicana and Chicano Studies M151B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey lecture course on historical development of Mexican (Chicana) community and people of Mexican descent (Indio-Mestizo-Mulato) from contact to present. P/NP or letter grading.

151C. Understanding Whiteness in American History and Culture. (4) Same as Chicana and Chicano Studies CM182.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History, construction, and representation of whiteness in American society. Readings and discussions trace evolution of white identity and explore its significance to historical construction of race class in American history. P/NP or letter grading.

151D. Chicana and Chicano Studies. (Same as Chicana and Chicano Studies M151D.) Lecture, four hours. Examination of Chicana historiography, looking closely at how practice of writing of history has 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 Press, and American Conquest, and asking how Chicano Movement to excavate untold stories about women’s participation in and contribution to making of Chicana and Chicano history. P/NP or letter grading.

151E. Latino Metropolis: Architecture and Urbanism in Americas. (4) Same as Chicana and Chicano Studies M151E.) Lecture, four hours. Introduction to history of architecture and urbanism in Americas, from fabled cities of Aztec empire to barrios of 21st-century Los Angeles and Miami. Emphasis on role of cities in Latina/Latino experience and uses of architecture and city planning to foster social identities and physical experiences of conquest, immigration, nationalization, and revolution. P/NP or letter grading.

152. Asians in American History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Focused on political and legal question of entry into U.S. of immigrants ineligible for citizenship and their citizen children in American history. P/NP 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 transit from Atlantic seaboard to Pacific, from 17th century to present. P/NP or letter grading.

154. History of California. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Economic, social, intellectual, and political development of California from earliest times to present. P/NP or letter grading.

155. History of Los Angeles. (4) Same as Chicana and Chicano Studies M155.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, economic, cultural, and political development of Los Angeles from time of its founding to present. Emphasis on diverse peoples of area, changing physical environment, various interpretations of city, and Los Angeles’ place among American urban centers. P/NP or letter grading.

156. Topics in U.S. History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific historical themes and/or major issues in U.S. history. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP 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, culture, and ethnic aspects. P/NP or letter grading.

157B. Indians of Colonial Mexico. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social and cultural history of Indians of Mexico, especially central Mexico from time of European contact until Mexican independence, with emphasis on internal view of Indian groups and patterns on basis of records produced by Indians themselves. P/NP or letter grading.

159. Latin America in 19th Century. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Intensive analysis of economic, social, and political problems of Latin American nations from their independence to around 1910. P/NP or letter grading.
selected topics that have continental application rather than being limited to the study of Africa. Neocolonialism, experiments in national development, apartheid in South Africa, ideological conflict in contemporary Africa, and Africa in world affairs since 1957. P/N or letter grading.

165. Topics in African History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific historical themes in African history. May be repeated for maximum of 16 units with topic and/or instructor change. P/N or letter grading.

165SL. Service Learning and Historical Understanding in South Africa. (4) Fieldwork, six hours. Students participate in two service learning projects in South Africa to help them understand ongoing historic legacy of apartheid in South Africa, differences between rural and urban places, and the role of agriculture, rural poverty and urban overcrowding. Students work directly with families and children under guidance of local community organizers. Offered in summer only. Letter grading.

166A-166B. History of West Africa. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/N or letter grading.


167A. History of Northeast Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of Ethiopia, Sudan, and Somalia in regional context of north-east Africa from slavery to nationalism. Focus on economic development, education, social change, and role of Islam. P/N or letter grading.

167B. History of East Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of cultural diversity of East Africa from earliest times to growth of complex societies, its place within wider Indian Ocean system, and colonial conquest to gaining of independence and postcolonial challenges. P/N or letter grading.

167C. History of Central Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of cultural diversity of East Africa from earliest times, with emphasis on establishment of agriculture, growth of trade, rise of states, and incorporation of region into world economy. P/N or letter grading.

168A-168B. History of Southern Africa. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of economic, political, social, and cultural developments that have shaped Argentinian colonial from colonial time to present. Emphasis on 19th-century development of agro-export economy and 20th-century formation of mass society. P/N or letter grading.

169A-169B. Topics in African History, (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of economic, political, social, and cultural developments of Africa that have shaped Argentinian colonial from colonial time to present. Emphasis on Atlantic trade without neglecting those of ancient Mediterranean, Islamic, and Indian Ocean worlds. Abolition and African diaspora. P/N or letter grading.

169D. Africa and Diaspora in Global and Comparative Perspective. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Emphasis on economic, political, social, and cultural development of Africa from earliest times to present. Emphasis on interconnections between interrelated interrelationships of power and cultural expressions of dominance and resistance in late imperial China (1000 to 1700), with emphasis on interplay of economic forces, ideological shifts, and institutional changes. Examination of institutions of state, family, school, and city; idioms of folk religion, death, and afterlife; political, legal, and medical discourses of body, personhood, and social identity; love, sexuality, and private life. P/N or letter grading.

170B. Selected Topics in Chinese History from 1500. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended prerequisite: course 11B. Designed for majors in history and political science. May be repeated for maximum of 16 units with topic and/or instructor change. P/N or letter grading.

M170C. History of Women in China, AD 1000 to Present. (4) Same as Gender Studies M170C. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include women and family, women in Confucian ideology, women in literati culture, feminist movement, and women and communist revolution. P/N or letter grading.

170D. 20th-Century China. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended prerequisite: course 11B. Designed for juniors/seniors. Social, economic, political, and intellectual developments seen in context of social-economic trends; human agency, structural change, and historical junctures in 20th century. P/N or letter grading.

171. Variable Topics in Japanese History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Important topics in Japanese history, including political change, economic development, social questions, and popular culture, as well as media and arts, explored through extensive readings. May be repeated for maximum of 16 units with topic and/or instructor change. P/N or letter grading.

172A. Japan—Ancient and Medieval History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and cultural development of Japan from earliest times to 1600. P/N or letter grading.

172B. Japanese History: Early Modern, 1600 to 1868. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and cultural development of Japan from 1600 to 1668. P/N or letter grading.

172C. Modern Japanese History, 1850 to 1945. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Investigation of meaning of modern “Japan” as newly national (and imperial) population and state. Effects of subsequent rapid upheavals in daily experience, both in Japan and Asia. Exploration of meaning of “modern” as a fraught interplay of indigenous and colonial am-bitions in domestic and foreign political spheres; World War II experience and radical and conservative effects of Allied Occupation. Foregrounding of professional practice of history and historical creation of categories, practices, and perspectives that have become second nature (i.e., linear time, nation, and modern social norms). Topics also include gender, sexuality, aesthetics, fashion, eugenics and race, hygiene, bloodsucking, monsters, anarchism, time, colonialism, feminism, art, censorship, protest, and Cold War. Socratic-style discussion in lecture. P/N or letter grading.


M173B. Women in 20th-Century Japan. (4) Same as Gender Studies M173B. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Japanese women in Japanese and world history through state documents, autobiographical voices, women’s poetry, television, and other varying historical sources, including topics such as women and new political order (1900 to 1930),
women, war, and empire (1930 to 1945), and women in consumer society (1980s to 1990s). P/NP or letter grading.

M173C. Shinto, Buddhism, and Japanese Folk Religion. (4) (Same as Religion M173C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social dimension of various Ways, great and little: Shinto's connection with cultural nationalism, Buddhism's medieval Reformations and Zen's relation to warrior class, folk religion's aspects such as shamanism, ancestor worship, and milenarianism. P/NP or letter grading.

173D. Postwar Japanese History through Film. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of postwar Japanese history through medium of film and film criticism. Much of postwar Japanese cinema can be seen as reflecting on and questioning place of Japan in world reshaped by catastrophic war and its lingering specter. Through screenings and critical discussion of select films spanning half-century following World War II, consideration of cultural, aesthetic, and sociopolitical significance of postwar as demarcated category in Japan. Reflection on ways in which filmic presentations of state of being postwar engaged with lived history, memory, and present time. P/NP or letter grading.

174A. Early History of India. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social dimension of various Ways, great and little: Shinto's connection with cultural nationalism, Buddhism's medieval Reformations and Zen's relation to warrior class, folk religion's aspects such as shamanism, ancestor worship, and milenarianism. P/NP or letter grading.

174B. History of India I. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political economy of imperialism and Britain's civilizing mission. Encounter, especially in terms of race and gender, between colonized and colonizers and to questions of resistance and nationalism. P/NP or letter grading.

M174D. Indo-Islamic Interactions, 700 to 1750. (4) (Same as Religion M174D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical introduction to Islam and its tolerance and forced conversion, Iranian Jewish emancipation, and dynamic symbiosis between Iranian Jews and other Iranians. P/NP or letter grading.

175A. Political and Historical Philosophy of Contemporary India. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problem of modernity; partition of India and emergence of Pakistan; political, social, ecological, and women's movements; struggles for rights and conflicts of identity among Muslims, Hindus, and Sikhs; terrorism in Sri Lanka and Punjab; public culture, popular cinema, and street life. 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. Treatment of major issues in history of contemporary India. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

176A. History of Southeast Asia to 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical introduction to history of peoples of Southeast Asia from earliest times to about 1815. P/NP or letter grading.

176B. History of Southeast Asia: Southeast Asia since 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of modern Southeast Asia, with emphasis on expansion of European influence in political and economic spheres, growth of nationalism, and process of decolonization. P/NP or letter grading.

176C. Philippine History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, cultural, and political history of Philippine societies from Spanish conquest through independence. Emphasis on questions of identity under colonialism, understanding Revolutions of 1898 and 1898, and politics of Philippine nationalist discourse. Readings include introduction to major issues in Philippine historiography and literature. P/NP or letter grading.

176E. Vietnam: Past and Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical introduction to 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 one or more of Southeast Asia's nation-states: Indonesia, East Timor, Thailand, Cambodia, Burma, Laos, Malaysia, Singapore, Brunei, Philippines, Vietnam. P/NP or letter grading.

177B. Comparative 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.

M178. Introduction to History and Culture of Indian Jews. (4) (Same as Jewish Studies M178.) Lecture, three hours. Introduction to political, intellectual, cultural, and socioeconomic status of Iranian Jews. Exploration of history of Iranian Jew from ancient times to modern history, with focus on post-Middle Ages to present time. Topics, studied from perspective of Iranian cultural and intellectual history, include identity and status, religious tolerance versus forced conversion, Iranian Jewish emancipation, and dynamic symbiosis between Iranian Jews and other Iranians. P/NP or letter grading.

179A. History of Medicine: Historic Roots of Healing Arts. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to traditions, practices, goals, and myths of Western healing professions from time of ancient Greeks to Renaissance. Topics range from Hippocrates and Galen, and scholars at Alexandria to healing at Epidaurus and Salerno, contributions of medieval Muslim and Jewish doctors, rise of healing professions, medical faculties, nursing orders, and hospit.
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.

M182A. Historical 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.

M182B. Medieval Jewish History. (4) Same as Jewish Studies M182B and Religion M182B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey 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 Jewish Studies M182C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Experience of Jews in America, both historically and contemporary. P/NP or letter grading.

M183A-183B. Third Reich and Jews. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.


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. Nature and function of myths in history of religion and culture. Examples selected from nonliterary as well as from other Asian and European traditions. 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 historically and contemporary. P/NP or letter grading.

M184D. History of Zionism and State of Israel. (4) Same as Jewish Studies M184D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of history of State of Israel from 1948 to present. P/NP or letter grading.

185A. History of Religions: Myth. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Functions and forms of myths and mythology in history of religion and culture. Examples selected from nonliterary as well as from other Asian and European traditions. P/NP or letter grading.

185B. 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.

185C. 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. Main polytheistic 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.

185E. Special Topics in History of Religions. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics announced in Schedule of Classes and include ancient Germanic cultic imperialism; mysticism of low countries; goddesses; religion in secular age. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M185F. History of Early Christians. (4) Formerly numbered M186F.) Same as Religion M186F.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Christian movement from its origins to circa 160 CE, stressing its conversions to Judaism, its social, political, and religious world, and methods of research. P/NP or letter grading.

M185G. Religious Environment of Early Christians. (4) Formerly numbered M186G.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Christian movement from its origins to circa 160 CE, stressing its conversions to Judaism, its social, political, and religious world, and methods of research. P/NP or letter grading.

M185I. Jesus of Nazareth in Historical Research. (4) Formerly numbered M186I.) Same as Religion M186I.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course M185G. 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.

M185L. Jesus of Nazareth in Historical Research. (4) Formerly numbered M186L.) Same as Religion M186L.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course M185G. 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.) 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.

186A. Women and Gender, Prehistory to 1792. (4) Formerly numbered M186A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of dynamic and 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.

M186B. Global Feminism, 1850 to Present. (4) Formerly numbered M186B.) Same as Religion M186B.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course M185G. 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.

M1868. Global Feminism, 1850 to Present. (4) Formerly numbered M1868.) Same as Religion M1868.) 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 from one and one half centuries to the present century. P/NP or letter grading.

M187A-187R. 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. 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.

189H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. In-depth 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.

C191A-191R. Capstone Seminars: History. (4 each) Seminar, three hours. Designed for seniors. Limited to 15 students meeting with faculty member. Reading and discussion of selected topics, and development of culminating project. May be repeated once for credit. P/NP or letter grading.

C191A. Advanced Honors Seminars. (4) Same as Communication M191A, Political Science M191A, and Sociology M191A.) Seminar, three hours; laboratory, 24 hours. Limited to 15 students meeting with faculty member. Organized 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.
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. Steer discussion toward content and methodologies related to Indian past that is interdisciplinary and multicultural in its scope. Letter grading.


200Y. Advanced Historiography: Application of Economics to History. (4) Discussion, three hours.

200Z. Advanced Historiography: Chichano, (4) Discussion, three hours. Graduate survey of leading literature in Chichano history, new emphases in methodological and theoretical approaches in the field.

201A-201V. Topics in History. (4) Seminar, three hours. Graduate courses involving reading, lecturing, and discussion of selected topics. May be repeated for credit. When concurrently scheduled with course 191, undergraduates must obtain consent of instructor to enroll. S/U or letter grading. 201A. Ancient Greece; 201B. client of course 201A or comparable. 201C. Early Modern Europe; 201E. Modern Europe; 201F. Russia/Eastern Europe; 201G. Britain; 201H. Latin America; 201J. Near East; 201K. India; 201L. China; 201M. Japan; 201N. Science/Technology; 201O. Theory of History; 201P. Jewish History; 201Q. Armenia and Caucasus; 201R. Southeast Asia; 201U. Psychohistory; 201V. Digital History; 201W. World.

201H-201P. Topics in History (Formerly numbered 201H-201P) Seminar, three hours. Designed for graduate students. Reading and discussion of selected topics. May be repeated for credit. May be concurrently scheduled with course C191D-C191K. S/U or letter grading. 201H. U.S. C201K. History of Religions.

202A-202B. Seminars: Comparative Modern Economic History. (4–4) Seminar, three hours. Course 202A is requisite to 202B. Designed for graduate students. Study of problems of modern economics in the 19th and 20th centuries, including such topics as industrialization, growth, demography, development, and economic change. In Progress (202A) and letter (202B) grading.

203A-203B. Social Theory and Comparative History. (4–4) Seminar, three and one half hours every other week. Introduces rooted social theory and theoretically sensitive history, following program of Center for Social Theory and Comparative History. Each course may be taken independently for credit. S/U or letter grading.

203C. Theories in Cultural History. (4) Seminar, three hours. Introduction to social, linguistic, semiotic, or other new interpretive theories and practices developed in other fields and applied to historical material. Letter grading.

204A. Departmental Seminar: Approaches, Methods, Debates, Practice. (4) (Formerly numbered 204.) Seminar, three hours. Required of all first-year departmental graduate students. Introduction to range of important methodological approaches and theoretical debates about writing of history that are influential across fields, geographical contexts, and temporal periods to stimulate conversation and connection across fields, inviting students to think collectively and expansively about study and praxis of history. Introduction to sampling of scholarship produced by department faculty members with whom students may work. S/U or letter grading.

204B. Departmental Seminar: Many Professions of History (4) Seminar, three hours. Professional development seminar with practicum component. Focus primarily in (204B) on (204A) Examining the ways in which skills of historians are transferable to variety of professions and exercised in diverse ways and roles. Discussion of actual and possible roles and responsibilities in and outside of academic history. Examination of where historians have been, where they are now, where they should be as highly educated, actively engaged members of society. Collaborative project required. S/U or letter grading.

205A-205B. History Department Professional Development Seminars. (1–1) Seminar, one hour. Course 205A is requisite to 205B. Limited to history doctoral students. Introduction to issues in professional development of students in History PhD program. In Progress (205A) and S/U (205B) grading.

206A-206B. Seminars: Near East History. (4–4) Seminar, three hours. Course 206A is requisite to 206B. In Progress (206A) and letter (206B) grading.

208A-C208B. Variable Topics: Interdisciplinary Studies. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Course C208A is not requisite to C208B. Tuition may include gender, world history, masculinity, and economic history. May be repeated for credit with topic change. Concurrently scheduled with courses C101A-C101B. S/U or letter grading.

M210. Topics in Ancient Iranian History. (4) (Same as Ancient Near East M208 and Iranian M210.) Seminar, three hours. Varying topics on Elamite, Achaemenid, Arsacid, and Sassanian history. May be repeated for credit. S/U or letter grading.

211A-211B. Seminars: Armenian History. (4) Seminar, three hours. Course 211A is requisite to 211B. In Progress (211A) and letter (211B) grading.

212. Methods in Armenian Oral History. (4) Seminar, three hours. Uses and techniques of Armenian oral history in preinterview, interviewing, and transcription; interviewing procedures; methods of compilation and evaluation. Field assignments, interviews, and summaries and/or paper based on interviews. S/U or letter grading.

213A-213B. History of Women, Men, Sexuality. (4–4) Seminar, three hours. Course 213A is requisite to 213B. Readings include history and theory, as well as classic and new historical studies drawn widely from U.S., European, Latin American, Middle Eastern, and Asian history to highlight the interests and perspectives represented and discussed. 213B. Enforced requisite: 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 graduate students. Exposure to newest branch of gender history: study of masculinity. Focus not on men per se, but on values, practices, and texts that constitute masculinity as one gender. Readings focus on broad range of chronological periods from antiquity to 20th century and geographical areas including Africa, Asia, Europe, and Middle East. S/U or letter grading.

214. Topics in History: World History. (4) (Formerly numbered 214.) Seminar, three hours. Designed for graduate students. Examination of variety of broad themes in human history based on historical perspective. Reading, discussion, and analytical writing culminating in one or several historiographical essays. May be concurrently scheduled with course C187G. Letter grading.

215A-215B. Seminars: Ancient History. (4–4) Seminar, three hours. Course 215A is requisite to 215B. In Progress (215A) and letter (215B) grading.

216A-216B. Seminars: Byzantine History. (4–4) Seminar, three hours. Course 216A is requisite to 216B. In Progress (216A) and letter (216B) grading.

217. Sources and Handbooks of Medieval History. (4) Seminar, three hours. Preparation: reading knowledge of German or French. Introduction to types of medieval source materials and the handbooks needed to use them.

M218. Paleography of Latin and Vernacular Manuscripts, 900 to 1500. (4) (Same as Classics M218, English M215, and French M210.) 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 information in accurate transcription of later medieval scripts, and (3) examine manuscript book as witness to changing society that produced it.
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Focus on relationship between Latin manuscripts and
vernacular manuscripts with regard to their respective
presentation of written texts. S/U or letter grading.
221A-221B. Seminars: Medieval History. (4–4)
Seminar, three hours. Course 221A is requisite to
221B. In Progress (221A) and letter (221B) grading.
225. Colloquium for Entering Graduate Students in
Modern European History. (4) Seminar, three hours.
Normally limited to and required of all modern European history graduate students. Introduction to
topics, methods, and historiography of modern European history.
226A-226B. Seminars: Italian Renaissance. (4–4)
Seminar, three hours. Course 226A is requisite to
226B. In Progress (226A) and letter (226B) grading.
227A-227B. Seminars: Reformation. (4–4) Seminar,
three hours. Course 227A is requisite to 227B. In
Progress (227A) and letter (227B) grading.
229A-229B. Seminars: Early Modern European
History. (4–4) Seminar, three hours. Course 229A is
requisite to 229B. In Progress (229A) and letter (229B)
grading.
M230A-M230B. Seminars: Modern European History. (4–4) (Same as Art History M230B-M230C.)
Seminar, three hours. Course M230A is requisite to
M230B. May be repeated for credit with consent of
adviser. In Progress (M230A) and letter (M230B)
grading.
231A-231B. Seminars: Modern European Intellectual and Cultural History. (4–4) Seminar, three hours.
Course 231A is requisite to 231B. In Progress (231A)
and letter (231B) grading.
232A-232B. Seminars: French History of 19th and
20th Centuries. (4–4) Seminar, three hours. Course
232A is requisite to 232B. In Progress (232A) and
letter (232B) grading.
233A-233B. Seminars: Russian/Soviet History. (4–
4) Seminar, three hours. Course 233A is requisite to
233B. In Progress (233A) and letter (233B) grading.
234A-234B. Seminars: Modern History of Spain,
three
hours.
Portugal, and Italy. (4–4) Seminar,
Course 234A is requisite to 234B. In Progress (234A)
and letter (234B) grading.
235A-235B. Economic History of Europe, 1780 to
1939. (4–4) Seminar, three hours. Course 235A is requisite to 235B. Analysis of internationalization of European world economy, emergence of Western core and
its relation with European peripheries. Comparative
analysis on different regions, stressing main characteristics of postwar European economy. In Progress
(235A) and letter (235B) grading.
235C-235D. Economic History of 20th-Century Europe. (4–4) Seminar, three hours. Course 235C is requisite to 235D. Cyclical trend, various economic regimes, and integration process of Europe. In Progress
(235C) and letter (235D) grading.
M236A. Proseminar: Political Psychology. (4)
(Same as Political Science M261A and Psychology
M228A.) Seminar, three hours. Introduction to political
psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.
236B-236C. Seminars: Psychohistory. (4–4) Seminar, three hours. Course 236B is requisite to 236C.
Exploration of individual and group psychological processes and their uses in historical research. In Progress (236B) and letter (236C) grading.
239A-239B. Seminars: English History—Middle
Ages. (4–4) Seminar, three hours. Course 239A is requisite to 239B. In Progress (239A) and letter (239B)
grading.
240A-240B. Seminars: English History—Modern
History. (4–4) Seminar, three hours. Course 240A is
requisite to 240B. In Progress (240A) and letter (240B)
grading.
241A-241B. Seminars: German History. (4–4) Seminar, three hours. Course 241A is requisite to 241B.
Designed for graduate students. In Progress (241A)
and letter (241B) grading.

242. Colloquium: European History. (2) Designed
for graduate students. Forum for critical discussion of
work of students and invited scholars. Presentation of
student dissertation prospectuses during their third or
fourth year in residence. S/U grading for students presenting papers.
244A-244B. Seminars: British Empire History. (4–
4) Seminar, three hours. Course 244A is requisite to
244B. In Progress (244A) and letter (244B) grading.
245. Colloquium: U.S. History. (4) Seminar,
three
hours. Normally limited to and required of all entering
graduate students in U.S. history. Critical introduction
to historical method, with emphasis on new methodological and conceptual approaches, use of source
materials, and current state of U.S. historiography.
246A-246B-246C. Introduction to U.S. History. (4–
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 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.
249A-249B. Seminars: Jacksonian America. (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. Requisite: 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.
253A-253B. Seminars: Recent U.S. History since
1930. (4–4) Seminar, three hours. Course 253A is requisite to 253B. In Progress (253A) and letter (253B)
grading.
254A-254B. Seminars: U.S. Social and/or Intellectual History. (4–4) Seminar, three hours. Course 254A
is requisite to 254B. In Progress (254A) and letter
(254B) grading.
255A-255B. Business Enterprise and American
Culture. (4–4) Seminar, three hours. Course 255A is
requisite to 255B. In Progress (255A) and letter (255B)
grading.
256A-256B. Seminars: America in World. (4–4)
Seminar, three hours. Course 256A is requisite to
256B. In Progress (256A) and letter (256B) grading.
257A-257B. Seminars: U.S. Urban History. (4–4)
Seminar, three hours. Course 257A is requisite to
257B. In Progress (257A) and letter (257B) grading.
258A-258B. Seminars: Working Class History. (4–
4) Seminar, three hours. Course 258A is requisite to
258B. In Progress (258A) and letter (258B) grading.
M259A-M259B. History of Women. (4–4) (Same as
Gender Studies M259A-M259B.) Seminar, three
hours. Course M259A is requisite to M259B. History

of women’s social and political issues seen in U.S.
and comparative context. In Progress (M259A) and
letter (M259B) grading.
(4–4) Seminar, three hours. Course 260A is requisite
to 260B. In Progress (260A) and letter (260B) grading.
M260C. Native American Revitalization Movements. (4) (Same as Anthropology M238.) Lecture,
two hours; discussion, one hour. Examination of revitalization movements among native peoples of North
America (north of Mexico). Specific revitalization includes Handsome Lake, 1870 and 1890 Ghost
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.
(4–4) Seminar, three hours. Course 263A is requisite
to 263B. In Progress (263A) and letter (263B) grading.
M264. History of American Education. (4) (Same as
Education M201C.) 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.
266A-266B. Seminars: Colonial Latin American
History. (4–4) Seminar, three hours. Course 266A is
requisite to 266B. In Progress (266A) and letter (266B)
grading.
M266C. Analyzing Historical Texts. (4) (Same
as
Linguistics M238.) Seminar, four hours. Designed for
graduate students. Analysis of linguistic structure and
ethnohistorical context of legal and other documents
written by native-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. Colloquia: African History. (4–4) Seminar, three hours. Designed for all entering and continuing graduate students in African history. Source
identification, research methodologies, historiographical traditions, historical interpretation, approaches to
teaching, and research design. Forum for critical discussion of dissertation prospectuses and work in
progress. Each course may be taken independently
for credit. S/U or letter grading.
M280. China Studies: Discipline, Methods, Debates. (2) (Same as Chinese M202.) Seminar, two
hours. Introduction to study of China as practiced in
humanities and social sciences disciplines. S/U
grading.
M281. China—Seminar: Classical Historiography
as
and Readings in Classical Studies. (4) (Same
Chinese M201.) Discussion, three hours. Preparation:
two years of classical Chinese or working knowledge
of classical Chinese. Readings in historiography and
selected genres of historical documents. Letter
grading.
282A-282B. Seminars: Chinese History. (4–4) Seminar, three hours. Course 282A is requisite to 282B. In
Progress (282A) and letter (282B) grading.


Seminars: Japanese History. (4-4) Seminar, three hours. Course 285A is requisite to 285B. In Progress (285A) and letter (285B) grading.

M286. Japan in Age of Empire. (4) (Same as Anthropology M247P and Asian M292.) Seminar, three hours. 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 is this hardly explored area of study of colonialism. S/U or letter grading.

M287. Central Asian Studies: Discipline, Methods, Debates. (2) (Same as Anthropology M247Q 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.

288A-288B. Seminars: South Asia. (4-4) Seminar, three hours. Course 288A is requisite to 288B. In Progress (288A) and letter (288B) grading.

289A-289B. Seminars: Southeast Asia. (4-4) Seminar, three hours. Course 289A is requisite to 289B. In Progress (289A) and letter (289B) grading.

291A-291B. Seminars: Jewish History. (4-4) Seminar, three hours. Course 291A is requisite to 291B. Studies in intellectual and social history of Jewish people from ancient times to modern period. In Progress (291A) and letter (291B) grading.

293A-293B. Seminars: History of Religion. (4-4) Seminar, three hours. Course 293A is requisite to 293B. In Progress (293A) and letter (293B) grading.

294A-294B. Western Science, Religion, and Political Economy, 1600 to 1830. (4-4) Seminar, three hours. Study of science integrated within matrix of religious beliefs, context of early modern Europe and, to a lesser extent, in American colonies. Examination of relationship of both cultural matrices to political and economic change. S/U or letter grading.

295. Theories of Scientific Change. (4) Seminar, three hours. Historical and philosophical perspectives on science, focusing on rationality of scientific change and logic and psychology of scientific discovery. Readings and seminar-style discussions of such authors as Popper, Kuhn, Toulmin, Lakatos, Holton, Budaclay, 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.

M298. Interdisciplinary Studies in 17th and 18th Century. (4) (Same as English M298.) Discussion, four hours. Topics vary according to participating faculty. May be repeated for credit. S/U or letter grading.

M299. Interdisciplinary American Studies. (4) (Same as English 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 instructor. 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 members for credit for academic program. May be repeated for credit. S/U 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 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 nine-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 between USC, UCLA, and other institutions. S/U grading.

596. Directed Studies. (1 to 8) Limited to graduate students. Individual directed reading arranged with 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.


599. PhD Research and Writing. (1 to 8) Preparation: advancement to PhD candidacy. S/U grading.

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Robert B. Goldberg, PhD (Molecular, Cell, and Developmental Biology)
Kelly A. Lytle Hernández, PhD (African American Studies, History)
Christina G.S. Palmer, PhD (Human Genetics, Psychiatry and Biobehavioral Sciences, Society and Genetics)
Zimna Stahuljak, PhD (Comparative Literature, French and Francophone Studies)
Christopher C. Tilly, PhD (Sociology, Urban Planning)
Aaron Tornell, PhD (Economics)
Aradhna K. Tripati, PhD (Atmospheric and Oceanic Sciences; Earth, Planetary, and Space Sciences; Environment and Sustainability)

Scope and Objectives
The Honors Collegium is a series of courses with an interdisciplinary emphasis designed for students enrolled in College Honors. It encourages animated discussion among students, as well as between students and professors and seeks to promote scholarly exchange across the major disciplines at UCLA. 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, A311 Murphy Hall, to advise and help students plan an integrated academic program.

Courses in the Honors Collegium are mainly in 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 epidemics and metaphors of the plague in Western culture from antiquity to the present. Topics include the Black Death, plague lore, and the depiction of plague in literature, film, and television. 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 (such as Armenia, the Holocaust, and Rwanda, among others). S/U or letter grading.

3. Personal Brain Management. (5) Seminar, four hours. Designed for College Honors students. Available psychotherapies, educational media, and drugs can alter our way of thinking. New wave of information technologies and biotechnologies is changing existing landscape. Survey of available tools that claim neuroplastic brain-changing effects, consideration of future developments, and engagement of students in discussion on ethical and philosophical implications of these developments. 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. Spans disciplines of comparative literature (French, German, American Gothic, modern, English), medicine/psychiatry, history of science. Major themes include fear and oppression; murder and infanticide; despair and suicide; barbarism and repression; hatred and revenge; incest and shame; jealousy and paranoia; madness and psychosis; sociopathy and evil.Elucidation of themes through texts, and discussion of each text in its historical and social context. Examination of pathological behaviors in context of their medical and psychiatric framework when they correspond to clinical diagnostic entity. Texts used as springboard to elaborate on recurrent themes in history of human civilization. S/U or letter grading.

5. Representing Cleopatra: Renaissance History, Drama, and Film. (5) Seminar, three hours. Examination of regal and royal history of Cleopatra as seen by her contemporaries and study of origins of myths about her and ways in which subsequent cultures and eras have imagined her in literature, 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. (5) History and Myth. (5) Seminar, three hours. Examination of both history of Joan of Arc and Gilles de Rais and of way in which, over time, their histories became legends, driven by various agendas including national identity, beatification, and gender politics. 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 include creation, death, deformity, madness, contagion, and infirm. May be taken by permission only. Texts are drawn from diverse settings and spanning Shakespeare to Plass. 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 liberal arts 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 sign, 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 and Stereotypes. (5) Seminar, four hours; discussion, one hour. Designed for College Honors students. Prior knowledge of any foreign language not required. Introduction to language from sociological perspective of gender. Use of research and examples primarily in English, Japanese, and Russian to explore nature of and stereotypes about male and female genderfcts 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 requisites: English Composition 3 or 3H or English as a Second Language 36. Exploration of the theories and art (literature, music, film, fine art) that emerged after World War II in what has come to be known as the postmodernist critique of traditions of earlier age and fosters fragmentation, skepticism toward universal truth, commodification of knowledge, media creating reality, and globalization in industry and society. Satisfies Writing II requirement. Letter grading.

12. Sacred Form: Literature and Poetry in India from Bronze Age to Premodern Times. (4) Seminar, three hours. Exploration of cultural and literary development in India from early religious poetry (prior to 1000 BC) to broad range of literary styles and diverse religious and philosophical movements through classical, medieval, and premorden period. P/NP or letter grading.

13. Inquiry in Numbers. (5) Seminar, four hours. Preparation: high school algebra. Designed for College Honors students. Teaches nonmathematicians to love mathematics. Mathematicians and other mathematicians do not, as means to end, but as beautiful and artful in its own right, including elementary number theory and study of whole numbers. Development of rich and elegant theory of prime numbers, factoring, and modular arithmetic. P/NP or letter grading.

14. Interaction of Science and Society. (5) Seminar, three hours. Examination of interaction of science and society and effects of this interaction on history, development of societies, evolution of revolutionary ideas as modeled in Galileo, Darwin, and others, and selected contemporary issues such as genetic engineering and war against infectious diseases. P/NP or letter grading.

15. Symmetry. (5) Seminar, four hours. Symmetry is one of fundamental intellectual frameworks of civilization, visual arts, sciences, arts, and other endeavors. Symmetry as it appears in mathematics, physics, and biology. Connections to and discussion of visual arts and music. Guest speakers from art communities complement scientific point of view. P/NP or letter grading.


17. Art, Entertainment, and Social Change. (5) Seminar, three hours. Designed for College Honors students. Examination of evolution of impact of arts and entertainment industry on such various aspects of social change as environmental movements, politics and elections, economic, local politics, and community. P/NP or letter grading.

18. Trial of Socrates. (5) Seminar, three hours. Examination of life and times of Socrates and trial that led to his execution, including in-class staging. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of complex thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

20. What Is This Thing Called Science?: Nature of Modern Science. (5) Seminar, three hours; discussion, one hour. Exploration of difference between science and other systems of knowledge; study of history and philosophy of science and examination of its reliability as objective knowledge. P/NP or letter grading.

21W. Rise and Fall of Modernism. (5) Seminar, three hours; writing laboratory, two hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. Study of early and middle 20th-century’s attempt to construct significance in a general cultural context by way of literature, literary criticism, and other intellectual movements. Satisfies Writing II requirement. Letter grading.

22. Comparative Odyssseys. (5) Seminar, three hours. Designed for honors students. Greek and Chinese classics have in common two modes of heroism: one glorifying prowess and another celebrating mental cunning. Both modes are associated principally with men motivated by piety and honor. Introduction of these two contrasting traditions of heroism, particularly conflation of courage and violence. Readings include Winter as Migrant by Jin Ha, Odyssey by Homer, Journey to Western Anthony Yu, Tripmaster Monkey by Maxine Kingston, and Ignorance by Milan Kundera. P/NP or letter grading.

23. Political Dissidence Today and in Ancient Greece: Trial and Death of Socrates in Its Classical and Legal Context. (5) Seminar, three hours. Study of trial and death of Socrates by examining its relevance to today’s legal treatment of dissent and civil disobedience in the U.S. and to variety of contemporary theories and strategies of dissent. Introduction to Greek legal system, values that animated that system, and new ways to think about roles of law. P/NP or letter grading.

24. We Could Be Heroes: Race, Gender, and the Contemporary Hero Narrative. (5) Seminar, four hours. Ways in which hero narratives represent and work through issues of racial and gender identity. Interdisciplinary consideration of hero narratives in film alongside various visual arts genres including graphic novel, blaxploitation films, hip-hop concept music, animated television series, and novel. Critical reading and analysis of these texts to question often-fraught racial and gender politics embedded in these cultural productions as way to access role that racial and gender dynamics have on world at large. P/NP or letter grading.

25. Politics and Passion: Judgment, Justice, and Emotions. (5) Seminar, four hours. How to combine judgment and emotions without them standing in way of justice, including our ability to listen and respond to pain of others in our political lives? Should it be our reason or our emotions? Or is there some way to combine the two? Exploration of these questions through debates on place of emotions in politics, from democratic times within philosophical framework. P/NP or letter grading.

26. Representing Medicine: Art, Literature, and Film. (5) Seminar, four hours. Limited to Freshman Summer Program students: Exploration of interdisciplinary dimensions of medical representation, with emphasis on cross-cultural 20th-century portrayals of profession, including representations of doctor/patient relations, healthcare sites and circumstances, aging, painful treatments, and mental health. Offered in summer only. P/NP or letter grading.

27. Varied Matriculates. (5) Seminar, four hours. In-formal approach to mathematics and engineering topics. Ideas through stories from historical and anthropological sources. Simplification of topics that cause difficulties in traditional mathematics. Examples emphasize practical solutions, in place of terms used in mathematics, relevant views from popular culture, including gambling, playing card games, and student contributions. Sources include computer, control, space, and other 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 way that human beings have historically and contemporaneously created and conceived of things and their importance in daily life and in performance of cultural identity. Consideration of questions including how past and present intersect, how people have made sense of world order, and time and space, and how objects, heritage, collections, museums convey, diverge, and intersect. P/NP or letter grading.


31. Scientific Method: Critical Inquiry into Questions of Extraterrestrial Life. (4) Lecture, three 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 general ideas, techniques, and limitations of the scientific method—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, local and global, and to which we may return. Broader notions of home, as homeland, necessarily form basis of conflicts between people and nations. Investigation of what home is through challenging works of theory surrounding notions of space, place, belonging, exile, and return, and through lighter vibrant works of literature, film, and performance. P/NP or letter grading.

33. Sampling and Remix: Aesthetics and Politics of Cultural Appropriation. (5) Seminar, three hours; laboratory, two hours. Enforced requisites: English Composition 3 or English as a Second Language 36. Limited to College Honors students. Contemporary media literacy has spurred production of amateur re-mixes of songs, films, images, and other media texts. But this is only one moment within far-reaching genealogy of cultural appropriation. Use of remix as lens through which to explore politics of historical and contemporary forms of cultural appropriation, including remixes of political speech, viral videos, and comedy mashups. Examination of fine line between honorific and allegations of theft. Satisfies Writing II requirement. P/NP or letter grading.

34. Film and History/Film as History. (5) Seminar, four hours. Designed for College Honors students. How do films reflect on, and even constitute, historical events? Examination of relationship between film
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and history and some ways in which film has functioned as history. Tracing questions of film and history from silent era to postfilm digital present, exposure to major issues in scholarly body of work in film and media studies while also learning about ways that films can engage with history. P/NP or letter grading.

39. Philosophy Ramble. (5) Seminar, three hours. Designed for College Honors students. Grounded in Aristotelian-style philosophy found in Martha Nussbaum’s Questions of Life and Death, Examines Hume, 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 interaction, memory, will, reason, prudence, and assessment/creation of self. Like Aristotle’s periaptic 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 Studies across Disciplines and Texts. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3. Tracing of writing and rewriting of traditional story types, specifically the adventure story as represented by Defoe’s Robinson Crusoe and its reconfiguration in Coetzee’s Foe and the fairy tale as represented by Cinderella and its various cross-cultural reimaginings. 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 sources 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 3. 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 that change way we think and have potential to affect social policy? Texts cover variety of topics from evolution to nutrition and food industry to prevent climate change. Intends to encourage practice scientific writing themselves. Satisfies Writing II requirement. Letter grading.

44. Society of Excess: On Waste, Consumer Culture, and Environment. (5) Seminar, three hours. Designed for College Honors students. Examination of waste in both real and virtual worlds, looking in interdisciplinary ways at various cultural representations of trash set against backdrop of society of excess and environment constantly threatened by overflooding and mismanaged waste, including social and cultural responses to physical waste and cyber battle against Internet debts. P/NP or letter grading.

46. Drugs in Society: Interdisciplinary Perspective on Drug Use, Abuse and the Drug Trade, Addiction, and Intervention. (5) Seminar, three hours. Examination of drug use and abuse and consequent social issues and policies both historically and in the contemporary U.S., including discussion of current research on neurobiological properties of different drugs and corresponding clinical interventions. P/NP or letter grading.

48. Politics of Reproduction. (4) Seminar, three hours. Examines 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.

49. Evidence in Law, Science, History, and Journalism. (4) Seminar, two hours. Rigorous study of ways in which lawyers, scientists, historians, and journalists handle evidence, with aim of advancing cross-disciplinary inquiry to produce a common vocabulary and set of concepts that allow for discussion of evidentiary issues in differing fields of inquiry. P/NP or letter grading.

51. Music and Society. (5) Seminar, four hours. Minimal experience reading music desirable but not required. Course begins with focus primarily, but not exclusively, on music of late-18th through early-20th centuries through multiple analytical prisms: sociological, historical, political, and musical. P/NP or letter grading.

55. Culture and History of Utopias. (4) Seminar, three hours. Study of major utopian writings from Thomas More’s classical text to recent ecological and feminist utopian texts, with purpose of uncovering socio-cultural, intellectual, and ethical challenges we experience as we quest for a more perfect society. P/NP or letter grading.


59W. Literature and Culture of the American South. (5) Seminar, three hours; laboratory, five hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3. Examination of historical imagination as it is expressed in such writers as Hoke, H. Bell, Flannery O’Connor, Richard Wright, and Zora Neale Hurston; in Civil War and WPA/FSA photography; and in Southern rhetoric and political documentary. Satisfies Writing II requirement. Letter grading.

63W. Nabokov and Reading Minds. (5) Seminar, four hours. Enforced requisite: English Composition 3 or English as a Second Language 3. Designed for College Honors students. Examination of three works by Vladimir Nabokov, Russian-American writer, teacher, translator, lepidopterist, and composer of chess problems. Nabokov’s eclectic writings lend themselves well to precepts of cognitive criticism—way of understanding world through relationship between literary and thought. Reading and writing about art and science built into course. Satisfies Writing II requirement. Letter grading.

64. Neuroscience and Psychology of Art and Biology of Aesthetics. (5) Seminar, three hours. Interdisciplinary approach to study of premise that beauty, whether of faces, art works, or other subjects, is processed by brain and can be understood as neurological and psychological phenomenon. P/NP or letter grading.

65W. Body-Mind Literacy. (6) Seminar, four 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 and mind. Satisfies Writing II requirement. P/NP or letter grading.

70A. Genetic Engineering in Medicine, Agriculture, and Law. (5) Lecture, three hours; discussion, two hours. Not open to students with credit for Life Sciences 3, 4, former Microbiology 7, or Molecular, Cell, and Developmental Biology 70. Historical and scientific study of genetic engineering in medicine, agriculture, and law, including examination of social, ethical, and legal issues raised by new technology. P/NP or letter grading.

70AL. Gene Discovery Laboratory. (5) Seminar, three hours; laboratory, five hours. Recommended requisite: course 70A. Laboratory work in genetics research and seminar approach applied 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.

73. Elementary Particles in the Universe. (4) Lecture, two hours; discussion, 90 minutes. No special mathematical knowledge required. Examination of elementary particle physics, including current study in laboratories around the world and its role in assessing the early evolution of the universe. 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 Mediterrane, to Alexander’s defeat of Darius III. Consideration of mutual constructions of other in antiquity. Near Eastern versus Greek testimony, and art and archeological evidence of these two civilizations. P/NP or letter grading.

78. Science and Religion from Copernicus to Darwinism. (5) Seminar, three hours. Designed for College Honors students. Relationship of religion and science in West by focusing on key scientists such as Galileo, Newton, and Darwin. Each one dealt differently with competing demands of religion, based on faith and revelation, and science founded on experience of reason. Dialog was and is constant one. P/NP or letter grading.

79. Personal Financial Health: Theory and Practice. (6) 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. Includes affecting financial habits—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 warrior societies along contact zone between Slavic world and Muslin Turks. Their frontier status and liminal culture proved to be mythogenic, and Cossacks figure prominently in imagination of cultures they impacted over centuries, especially 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 community organizing 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. Politics and Rhetoric of Literature. (6) Seminar, four hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3. Examination of relations between politics and culture. Study 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 situations in three countries abroad and discussion of various aspects of minority languages in the U.S. P/NP or letter grading.

85. Biological Clocks. (5) Seminar, four hours. Designed for College Honors students, but open to all majors. Rotation of Earth 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 how people are distressed by intense fear, examination of structures and processes of irrational fears, and discussion of courage and fear reduction strategies. P/NP or letter grading.

87W. Worlds of Neil Gaiman: Graphic Novels, Social Media, and Fantasy Fiction. (5) Seminar, four hours. Enforced requisite: English Composition 3. Designed for College Honors students. Examination of eclectic works of Neil Gaiman and exploring his contributions to children’s and young adult literature, novels, graphic novels, video games, film and television, and online writing. Use of multiple lenses to understand his work, including philosophy, cultural studies, and media studies. 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 repeated for credit. 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 credit. P/NP or letter grading.

90. Hollywood and Global Responsibility. (5) Seminar, three hours. Designed for College Honors students. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required. Honors content noted on transcript. Letter grading.

91. 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

101A. Student Research Forum. (2) Lecture, two hours. Designed to promote deep engagement in university research, including instruction on securing research opportunities, skills necessary for research and publication, exposure to research interactions on and off campus, and communication of research. P/NP grading.

101B. UCLA Undergraduate Science Journal. (2) Seminar, two hours. For students on editorial board of annual UCLA Undergraduate Science Journal, including study of writing in sciences and honing of editing and production skills. May be repeated for maximum of 15 hours. P/NP or letter grading.

101C. UCLA Undergraduate Journal for Humanities and Social Sciences. (2) Seminar, two hours. For students on editorial board of annual Aleph journal of undergraduate research and writing, including study of writing in various disciplines and honing of editing and production skills. May be repeated for maximum of 10 units. P/NP grading.

101D. Counseling Multicultural Communities. (2) Seminar, two hours. Study of counseling: racial/ethnic identity in cross-cultural counseling, including development of working model. P/NP grading.

101E. Leading Undergraduate Seminars. (1) Seminar, one hour. Limited to students who have been accepted into Undergraduate Student Initiated and Heded Education (USIE) program. Learning and exploration of issues that are integral to developing seminars and development of skills to become effective student facilitators. Practical teaching strategies and techniques, as well as pedagogical, organizational, and technological issues confronted by new instructors. Discussion of key topics, followed by discussion of syllabus design and development of seminar objectives, and conducting of micro-teaching presentations. Guest speakers expand on topics that arise from class discussions. May be repeated once for credit. P/NP or letter grading.

101F. Integrity in Research. (2) Seminar, two hours. Limited to students in CARE, HHMI, MARC, and UC Leads programs. Discussion about integrity in research, current thinking in field, and important ethical issues that impact scientific investigation. P/NP grading.

101G. Graduate School Preparation. (2) Seminar, two hours. Limited to AAP students. Designed to help AAP students familiarize themselves with academic disciplines they would like to pursue in graduate school. Through course readings, guest speakers, and interactive assignments, students learn more about their graduate school options and how to navigate application process. P/NP grading.

101I. Research Today: Sources, Tools, and Strategies. (2) Lecture, two hours; laboratory, one hour. Introduction to research process in digital age, offering opportunity to develop research skills through exploration of literature, journal articles, books, monographs, and online databases. Satisfies Writing II requirement. Letter grading.

101J. Mellon Mays Research Seminar. (2) Seminar, two hours. Limited to current Mellon Mays Undergraduate Fellows and designed to support them in their current research projects and graduate school preparation. Topics include research methods, abstracts, presentations, and posters, as well as graduate school application materials. May be repeated for maximum of 10 units. P/NP grading.

101K. Culture, Media, and Los Angeles. (6) (Same as Economics M123.) Lecture, four hours; screenings, two hours. Designed for juniors/senior Honors. Role of media in society and its influence on contemporary cultural environment, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

101L. Scientific Knowledge, Industrial Growth, and Social Policy. (5) Lecture, three hours; laboratory, two hours. Examination, using nanotechnology, of both benefits and risks to economy and society when new technologies are in process of development. P/NP or letter grading.

101M. Modern Forms of Social Relationships from Theory to Research Design. (5) Seminar, three hours. Relational models theory posits that four elementary models organize social coordination, emotions, motivations, and norms in virtually all domains and cultures. Study and critique of theory, development of research questions, planning of study, design of its methodology, and writing of research proposal. P/NP or letter grading.

101N. Ethnic Disparities in Healthcare. (5) Seminar, three hours. Examination of ways in which race and ethnicity impact delivery of healthcare in U.S. and discussion of policies and proposals to address disparities in healthcare and diversity in healthcare workforce. P/NP or letter grading.

101O. Imaginary Women. (5) Same as Gender Studies M106. Seminar, four hours. Designed for junior/senior College Honors students. Study of four femininity/sexual archetypes: fairy/angel, mother/infanticide mother, intellectual woman, and warrior woman—as they appear in their classical and modern manifestations in European and American cultures. P/NP or letter grading.

101P. Literature and Political Order: Homer, Shakespeare, Dostoevsky. (5) Seminar, three hours. Designed for College Honors students. Examination of political order and questions of violence, power, leadership, ideology, and the consequences of literary texts, specifically Iliad by Homer, Julius Caesar and Henry IV, Part 1 by Shakespeare, and Brothers Karamazov by Dostoevsky. P/NP or letter grading.

101Q. Ancient Rome and the Monuments of Washington, D.C. (2) Seminar, four hours. Examination of construction of public buildings, marble monuments, and heroic statues of Washington, D.C., inspired by memory and ruins of classical antiquity, and how these evocations have meaning today. Consideration of temple, Greek Pantheon, and Pantheeon and American monumental counterparts, Washington Monument, Lincoln Memorial. Examination of ancient inspirations, historical background, architectural design, and art of these monuments in context of shifting public ideologies and local politics in Washington. Public buildings including U.S. Capitol, Supreme Court, Lincoln's, publically commissioned statues of war heroes (Revolutionary, and Civil), monuments to honor veterans of Vietnam, Korean, and Second World War conflicts, and American presidents. P/NP or letter grading.

101R. Foreign Exchange Market and Exchange Rate Forecasting. (5) (Same as Economics M123.) Seminar, four hours. Introduction to forecasting of exchange rates. Theory linked to real world data through use of powerful computer platform called Tradeshant® in computer laboratory. Analysis of how foreign exchange market works, what financial instruments are used and what main theoretical determinants of exchange rates are. Generation of exchange rate forecasts by combining theoretical concepts with real-world data using concepts and techniques from econometrics, 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.

101S. Marxist and Post-Marxist Approaches to Cultural Studies. (4) Seminar, four hours. Examination of Marxist and post-Marxist approaches to study of culture, including classical 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. Exploration of social, political, economic, psychological, and cultural dimensions of our hyper-
connected 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. Designed for College Honors students. An examination of the body of architectural work originating in Los Angeles but reaching world both in material construction and aesthetic influence has emerged. Study of works of three seminal architects—Frank Gehry, Thom Mayne, and Greg Lynn. Site visits and hands-on practice in how to read architectural plans and how to use computers and modeling in architectural study and design. P/NP or letter grading.

115. Poetry and Society in England, 1588 to 1688: Verse, Politics, Religion, and Sexuality from Spanish Armada to Glorious Revolution. (5) Seminar, three hours. Designed for College Honors students. Poetry of the years between 1588 and 1688 through prism of evolving political, philosophical, theological, sexual, economic, and scientific practices of that day and vice versa to understand poetry in cultural and historical context. Students research on range of subjects from alchemy to zoology and become class resource on some relevant topic such as Renaissance medicine, Calvinism, Scholasticism, Cromwell and New Model Army, Elizabethan foreign policy, Stuart architecture, agricultural and dietary changes, and printing and publishing conventions. P/NP or letter grading.


117. London and Culture of Male Homosexuality, 1870 to 1900. (5) Seminar, four hours. Designed for College Honors students. Examination of male homosexual subculture that thrived in London during period when brilliant Irish writer Oscar Wilde (1854 to 1900) was sent to jail for committing acts of gross indecency. Study of Wilde trials, cultural consequences of Labouchere Amendment criminalizing male homosexual acts, some of Wilde's writings, and exciting new written and light offerings into links that gay men in London had with theatrical world, prostitution, aristocrats, and underground publishing. P/NP or letter grading.

M118. Roots of Patriarchy: Ancient Goddesses and Heroines. (Same as Gender Studies M128.) Lecture, three hours. Examination of ancient goddesses and heroines—European, Neolithic, Near Eastern, Celtic, Scandinavian, Balto-Slavic, Indo-Iranian, and Greco-Roman—using translations of ancient texts, archaeological evidence, and feminist methodology in order to discover implications of ancient patriarchy on modern society. P/NP or letter grading.


M120. Art and Performance: Interdisciplinary Approach to Collections of Getty Center. (4) Same as Theater M187.) Seminar, three hours; discussion, one hour. Drawing from objects in five major collections at 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 psychoanalytic approaches to works of Sigmund Freud's fin de siècle Vienna and post-Freudian visions; investigation of various interferences of these different conceptions in present day. P/NP or letter grading.

122. Chemical Communication across Tree of Life. (5) Seminar, three hours. Designed for College Honors students. Chemical communication governs relationships among most biological entities, across entire tree of life from viruses to Homo sapiens. Bioproduction devices are using knowledge gleaned from chemosensory systems to change face of robotics, with wide applications in consumer industries, homeland security, and space exploration. Chemical, physical, and biological principles to be combined as pedagogical tools for teaching larger lesson in science. Synthesis of information and concepts across disciplines to develop student hypotheses and conclusions. P/NP or letter grading.


124. Midwives, Mothers, and Medicine: Perspectives on History of Childbirth. (4) Seminar, three hours. Using examples from history and anthropology, examination of variety of practices associated with childbirth over time and across cultures, addressing social conditions among birthing women, midwives, and medical men and cultural meanings of birth. P/NP or letter grading.

125. Communities and Nations in Conflict: Theory and Practice of International Conflict Resolution. (5) Lecture, three hours; discussion, one hour. Introduction to theory and practice of conflict resolution, with emphasis on international conflict. Transitional justice mechanisms, from international criminal tribunals, special courts, and International Criminal Court to indigenous approaches such as community justice systems. Examination of environmental conflict resolution, homeland security and terrorism, role of gender in conflict, and role of media in conflict. P/NP or letter grading.

126. Waves of Resistance: Race, Empire, and Social Justice in Asia and Pacific Islands. (5) Seminar, three hours. Designed for College Honors students. Examination of contemporary moments of racial violence, empire, and social justice in Asia and Pacific Islands. Global forces such as capitalism, colonialism, and globalization played significant role in cultural, economic, and political organization of places such as American Samoa, Guam, Hawaii, Marshall Islands, Philippines, Okinawa, and South Korea. Exploration of various groups of people have responded to these forces to have better understanding of how race, empire, and social justice have connected these distant and diverse areas and peoples. P/NP or letter grading.

127. Citizenship, Leadership, and Service. (4) Seminar, three hours; fieldwork, three hours. Interactive participatory study of interactions between citizenship, leadership, and service, including both theoretical and practical work in community service organizations in the field. P/NP or letter grading.

128. What We Do When We Laugh Together: Humor, Social Scientific, and Biological Perspectives. (5) Seminar, four hours. Designed for College Honors students. A study of the effect of how laughter, humor and other subcultural phenomenon of human laughter and humor. While Aristotle and Hobbes thought humor was bad for society, Locke and Bentham would have disputed them for different reasons. Use of their ideas to critically evaluate how social scientists investigate mass media political satire of today. P/NP or letter grading.

129. Research in Psychology and Legacy of John Wooden. (5) Seminar, four hours. Designed for College Honors students. Exploration of life and work of Coach John Wooden, with particular attention to his pyramid of success, how he was viewed and is remembered by his players, and relationship between his philosophy and academic philosophy. Use of John Wooden's unique pedagogical approach 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 coaching philosophy) to research in psychology. P/NP or letter grading.

130. Speeding Cures: How Can Health Activists Make Differences? (5) Seminar, four hours. Designed for College Honors students. Study of intersection of science and society by examination of historical examples of ways in which health activists have contributed to moving specific health challenges into larger, more systemic society. Some scientists argue that surest route to cures and health is through curiosity-driven science supplemented by serendipidity, followed by integration of this knowledge into practical remedies. Others argue that extra scientific passion, financial incentives, social and political organization, and strategic planning may be more important. Research of one discipline or health and role of non-health professionals. Topics include autism, AIDS, cancer, politics of disability, economics of drug development, DNA sequencing, aging, and future roles of health advocates. 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 roles and resources have been used to promote social equality and development and analysis of why some countries appear to be making more progress than others. Consideration of how factors such as history, particularly related to colonialism, political economy, and culture affect character and performance of schools. P/NP or letter grading.

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 various discourses on women's rights, labor rights, and nation/identities 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 adopted and adapted some of these same ideas to their own unique historical circumstances. Use of highly successful Reacting to Past historical role-playing came titled Greenwich Village, 1913: Suffrage, Labor, and New Woman. P/NP or letter grading.

133. Practice and Ethics of Ethnographic Fieldwork. (5) Seminar, three hours. Examination of ethnography and practices of ethnographic fieldwork. Focus on different field methods course but one intended to convey rich knowledge fieldwork can produce in many disciplines and kinds of ethical issues raised in doing fieldwork. P/NP or letter grading.

134. Democracy and Utopias. (5) Seminar, three hours. Designed for College Honors students. Political culture of modern democracy fosters idea of progress and constant reform and is also way of radical upheavals. Political culture of ancient Greek democracy made possible two things: awareness of having achieved unmatched superiority over other societies and birth of utopia. Democracy praised itself as perfect form of government, but it also nourished counterfactual objections to quest for absolute, just, and blissful political order. Examination of this para-
doxical link between democracy and utopia by tracing its history in works of Aristotle, Plato, Thomas More, Tommaso Campanella, Francis Bacon, and Charles Fourier to show relevance to contemporary politics. P/NP or letter grading.

135. Poetics and Popular Culture in England, 1588 to 1688. (5) Seminar, four hours. Reading and discussion of poems to comprehend meaning and place in configurations of rapidly transforming society. Tensions and changes in that culture, and lives of authors, these works. Low and wolf spirit, and cavalier modes emerge in period of intense struggle. Interplay of form, content, and meaning within these modes. Evidence offered about personal psychology, gender politics, and status competitions of this period and its poets, especially Donne, Herbert, Jonson, Carew, and Marvell. What kind of work were they doing? What 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, Gender, and Religion. (5) Seminar, three hours. Deconstruction of and deeper histories behind images of Buddhism such as bald, saffron-robed monks; orange, golden temples with scent of incense; serene Zen mountain and regular Buddha services. Richard Gere to Thich Nhat Hanh to the Dalai Lama. P/NP or letter grading.

138. Empire, Globalization, and Multitehnic Storytelling. (5) Seminar, four hours. Exploration of theoretical evolution of postcolonial and transnational studies through predominantly American multitehnic short story. How do our primary works in contemporary short fiction question literary conventions of allegory and national literature? What implications for the role of empire, diasporic mobility, and generic mutability unite or separate our primary creative works? What mediations on identity do our fiction and creative non-fiction works offer as they interconnect notions of race, class, caste, gender, ethnicity, nationality, and/or sexuality? What aesthetic or critical possibilities does the short story open up for future of postcolonial, diaspora, ethnic, and area studies? Could the multitehnic short story be the socio-politically subversive narrative genre par excellence? Close readings in comparative light with creative non-fiction and hybrid narrative forms in works by Aimé Césaire, Antimata Kumar, Jhumpa Lahiri, ZZ Packar, Roxane Gay, and Claire Vaye Watkins. P/NP or letter grading.


140. Dominants and Subordinates in Sociopolitical Psychology: Oppression, Oppression in Public Educa- tion. (6) Lecture, four hours; discussion, one hour; tutoring, three hours. Study of social arrangements 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 Neu- roscience to Philosophy and Back. (5) Seminar, four hours. Survey of motivations, methods, and conclusions of neuroscientific and psychological investigations of free will. Consideration of neuroscientific arguments that humans are not free when they choose and of philosophy of arguments about what 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 designed and carried out corresponding with philosophical and legal debate on free will. P/NP or letter grading.

143. Latino Immigration History and Politics. (4) Same as Chicana and Chicano Studies M124.) Lecture, four hours. Overview of Mexican, Central American, and Latino immigration to U.S., examining social, political, and economic contexts out of which different waves of Latin American immigration have taken place. Interests of different Latino students. Introduction to four major sex scandals that took place in London between 1870 and 1895 to understand ways in which institutions create frameworks for understanding sexual identities, and relations between sexual scandals and legal actions. Sodomry trial of Ernest Boulton and Frederick Park. Examination of extent of queer networks among gay men, transgender individuals, and their apparatus to fight against oppression. Letter grading.

151. Victorian Sexual Scandals. (5) Seminar, three hours; discussion, two hours. Examination of four major sex scandals that took place in London between 1870 and 1895 to understand ways in which institutions create frameworks for understanding sexual identities, and relations between sexual scandals and legal actions. Sodomry trial of Ernest Boulton and Frederick Park. Examination of extent of queer networks among gay men, transgender individuals, and their apparatus to fight against oppression. Letter grading.

152. Past People and Their Lessons for Our Own Future. (5) (Same as Anthropology M148 and Geography M153.) Lecture, three hours; discussion, two hours. Examination of human 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. Political Opposition in Early Modern Europe. (5) Seminar, three hours. Designed for College Honors students. Examination of tradition of radical political movements from Italian Renaissance to French Revolution. Topics include Machiavelli’s contributions to political thought, turmoil of 16th-century France and Dutch Republic and their radical underside of Protestant thought, French Wars of Religion, Dutch revolt against Spanish rule, Stuart English radicalism, and radical thought of European Enlightenment and its contributions to French Revolution. P/NP or letter grading.

157. International Relations of Middle East. (5) (Same as Political Science M132B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Role of great powers in Middle East, with emphasis on American, Soviet, and Israeli-European policies since 1945. P/NP or letter grading.


163. China’s Rise: Critical Issues and Global Implica- tions. (5) Seminar, three hours. Designed for College Honors students. Creation and presentation of original one-person performance speech. Development and writing of original script through exploration of personal themes, tone, and subject matter. Addressing of physical or emotional strengths and weaknesses in relation to creative pro- cess of playwriting and performing breakdown, inter- pretation, and summation of one-actor plays and synthesis of this knowledge to benefit writing and performance. Identification and exploration of student’s unique personal voice in order to establish clear and creative point of view in developing or per- forming their story. Analysis of dramatic structure, dramatic action, and creation of believable and interest- ing character. Focus, concentration, imagination, and relation during writing, rehearsal, and performance, and maintaining professional decorum and discipline. P/NP or letter grading.

165. Privacy versus National Security. (5) Seminar, four hours. Designed for College Honors students. Edward Snowden’s disclosures of extent of govern-
ment surveillance conducted by National Security Agency sparked national debate about scope and necessity of government surveillance programs. What is proper balance between privacy and national security in information age? Study of debate about constitutional values and moral legitimacy of mass surveillance, coming terms with their own and their relatives’ cultural identity, P/NP or letter grading.

168. Paris: Biography of City from 1715 to World War II. (5) Seminar, three hours. Designed for College Honors students. Exploration of history of Paris from death of Louis XIV to World War II. Study of consequences of rapid urbanization and reasons why Paris became fulcrum for political revolutions. Examination of Paris as locus of modernism, its rebuilding and design under Baron George Haussmann, impact of World War I and expat culture, and city’s housing crisis. P/NP or letter grading.

169. Imposture and National Identity. (5) Seminar, three hours. Enforced corequisite: course 176B. Introduction to some of most important cultural, historical, and political currents in contemporary Arab world, with special focus on Cairo and Alexandria. Offered in summer only. P/NP or letter grading.


171. Rationality and Emotions. (5) Seminar, three hours. History of thought in which philosophers, social theorists, and cognitive scientists have characterized relationship between rationality and emotions, culminating in emerging consensus that emotions can positively influence decision making. Readings range from philosophy of ancient Greeks to writings of contemporary neuropsychologists. P/NP or letter grading.

172. French Thinkers of Society. (5) Seminar, four hours. In-depth study of distinguishing perspectives of French thinkers 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. America 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, constitutionalism, and democracy, as well as morality of slavery and legitimacy of succession. 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, environmental issues, military, government, and economics. Demonstration of how nano, like current technology, cannot be separated from ethical, cultural, political, and social issues. P/NP or letter grading.

175. Terrorism, Counterterrorism, and Weapons of Mass Destruction: Practical Approach. (5) (Same as Epidemiology CM175.) Seminar, three hours. Terrorism, its origins, and ways of addressing terrorism at local, national, and global levels. Guest speakers from variety of UCLA departments and from Los Angeles. P/NP or letter grading.

176A. Context of Arab World: Cairo and Alexandria. (4) Seminar, four hours; fieldwork, eight hours. Enforced corequisite: course 176B. Introduction to some of most important cultural, historical, and political currents in contemporary Arab world, with special focus on Cairo and Alexandria. Offered in summer only. P/NP or letter grading.

176B. Reading Arab World: Cairo and Alexandria. (4) Seminar, four hours; fieldwork, eight hours. Enforced corequisite: course 176A. Introduction to some of most salient literature in contemporary Arab world, with focus on Cairo and Alexandria. Offered in summer only. P/NP or letter grading.

177. Biotechnology and Art. (5) Seminar, six hours. Bioartists use cells, DNA molecules, proteins, and living tissues to bring to life ethical, social, and aes- thetic 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 viability of American democracy. P/NP or letter grading.

179. Critical Vision: History of Art as Social and Political Commentary. (5) (Same as Communication M166.) 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.

180. Structure, Patterns, and Polyhedra. (5) (Same as Chemistry M117.) Lecture, four hours; activity, two hours. Exploration of structures and their geometric underpinnings, with examples and applications from architecture (space frames, domes), biology (enzyme complexes, viruses), chemistry (symmetry, molecular cages), design (tiling), engineering (space filling), and physics (crystal structures) to effect working knowledge of symmetry, two-dimensional patterns, and three-dimensional solids. P/NP or letter grading.

182. From Scientific Revolution to Industrial Revolution. (5) Seminar, four hours. Designed for College Honors students. Examination of most important developments in making of Western power and hegemony: rise of new science and its relationship first to Britain, then European, Industrial Revolution. Once seen as solely product of material factors such as abundant coal, high quality labor, and available capital, Industrial Revolution is shown as also possessing critical importance through different approaches to nature and treatment of mental disorder, from biomedical accounts of brain-based pathology (and identity) to Mad Pride movement emphasis on mental diver- sity. 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.

183. Being Human: Identity in Age of Genomics and Neuroscience. (5) (Formerly numbered 183.) (Same as Disability Studies M183.) Seminar, three hours. Exploration of relationship between identity and mental illness through different approaches to na- ture 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.

184. Indian and Pakistani: Historic Roots of Con- flict 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 inapt 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.

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 maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

190. Directed Honors Studies. (4) (Formerly numbered 183.) Tutorial, two hours. Preparation: minimum of 4 units completed in Honors Collegium with grade of B or better, overall UCLA grade-point average of 3.0 or better. Special research writing tutorial with director of one Honors Collegium course to pursue in greater depth significant topics from one college course. May be repeated for credit. P/NP or letter grading.
The goal of the graduate program is to train the next generation of leaders in human genetics. This broad and rapidly evolving field of research incorporates multiple areas of modern experimental biology (including but not limited to molecular and behavioral genetics, epi-genetics, 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 bio-statistics). 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 fundamen-tal 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.

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) 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. Requirements: 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 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, statistical analysis, big data, and bioinformatics, and analysis in genetics and genomics.
201. Topics in Genomics. (2) Seminar, two hours. Survey of current biological theory and technology used in genomic research. Topics include genomic technologies, functional genomics, proteomics, statistical genetics, bioinformatics, and ethical issues in human genetics. S/U grading.

M211. Mathematical and Statistical Phylogenetics. (4) (Same as Bioinformatics M211 and Biostatistics M393.) Lecture, three hours; laboratory, one hour. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolutionary tree methods, studies of population evolution, phylogeography, and coalescent approaches. Examples from evolutionary biology and medicine. Laboratory for hands-on computer analysis of sequence data.

CM224. Computational Genetics. (4) (Same as Bioinformatics M224 and Computer Science CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Required of Computer Science 32 or Program in Data Science 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. Design 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 and proteomics. 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 Bioinformatics M226 and Computer Science M226.) Lecture, four hours; outside study, eight hours. Enforced prerequisite: Computer Science 32 or Program in Computing 10C with grade of C– or better. Recommended: one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with probability, statistics, linear algebra, and algorithms expected. Designed for engineering students as well as students from biological sciences and medical school. Introduction to current topics in bioinformatics and computational genomics and preparation for computational interdisciplinary research in genetics and genomics. Topics include genome analysis, regulatory genomics, association analysis, statistical design, isolated and admixed populations, population substructure, human structural variation, model organisms, and genetic technologies. Computational techniques include those traditionally defined academic boundaries. May be repeated for credit with topic change. 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 current topics in bioinformatics and computational genomics and preparation for computational interdisciplinary research in genetics and genomics. May be repeated for credit with topic change. Letter grading.

236A. Advanced Human Genetics A: Molecular Aspects. (4) Lecture, three hours; discussion, two and one half hours; outside study, seven hours. Recommended preparation: prior knowledge of basic concepts in molecular biology and genetics. Advanced topics in human genetics related to molecular genetics and relevant technologies. Topics include genomic technologies, human genome, mapping and identification of disease-causing mutations, transcriptomics, proteomics, functional genomics, epigenetics, and stem cells. Reading materials include original research articles and review or book chapters. Letter grading.

236B. Advanced Human Genetics B: Statistical Aspects. (4) Lecture, three hours; computer laboratory, one hour. Recommended preparation: introductory statistical knowledge equivalent to Biostatistics 100A or Statistics 13 and general genetics knowledge equivalent to Ecology and Evolutionary Biology 121, Human Genetics 238A, or Molecular, Cell, and Developmental Biology 141. Statistical and population genetics related to analysis of complex human genetic traits. Reading materials include original research papers and reviews. Letter grading.

C236C. Societal and Medical Issues in Human Genet- ics. (5) 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 specifi- cally 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 genet- ics cases. Discussion of role of whole genome se- quencing in clinical and 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, one hour. Requirements: Life Sciences 4. Survey of key technologies that have led to suc- cessful application of genomics to biology, with focus on theory and practical experimental uses and their current applications. Concurrently scheduled with course C144. S/U or letter grading.

M255. Mapping and Mining Human Genome. (3) (Same as Pathology M255.) Lecture, three hours. Basic molecular genetic and cytogenetic techniques of gene 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 localiza- tions of disease genes. S/U or letter grading.

M260A. Introduction to Bioinformatics. (4) (Same as Bioinformatics M221, Chemistry CM260A, and Computer Science CM221.) Lecture, four hours; dis- cussion, two hours. Enforced prerequisites: 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. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical tech- niques to analyze biological data. Focus on sequence analysis and alignment algorithms. S/U or letter grading.

M265. Computational Methods in Genomics. (4) (Same as Bioinformatics M225 and Computer Science M225.) Lecture, two and one half hours; discussion, two hours. Enforced prerequisites: 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. Introduction to computational techniques for analysis of complex biological datasets. Focus on standard tools and techniques for large-scale data analysis. S/U grading.
School of the Arts and Architecture
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.


M70. Origin of Language. (8) (Same as Communication M70 and German 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.

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
131. European Archaeology, Neolithic to Bronze Age. (4) Lecture, four hours. Survey of European cultures from beginning of food-producing economy in 7th millennium BC to beginning of Bronze Age in 3rd millennium BC. P/NP or letter grading.

132. European Archaeology: Bronze Age. (4) Requires: 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. (5) (Same as Linguistics M150.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: Linguistics 1 or 20. Indo-European languages (ancient and modern), including their relationships, 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.

M166. Introductory Hittite. (4) Same as Ancient Near East M168.) Lecture, two hours; recitation, one hour. Recommended preparation: knowledge of language with case system. Introduction to Hittite grammar by series of graded lessons covering morphology and syntax, followed by readings of selected texts from variety of genres in transliteration. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
199. Special Studies. (2 to 8) Tutorial, to be arranged; P/NP or letter grading.

Graduate Courses


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 archaeological materials and their relationship to Near East, Western Siberia, and Central Asia. May be repeated for credit. In Progress (250A) and S/U or letter (250B) grading.

C260. Indo-European Comparative Mythology and Poetics. (4) Seminar, three hours. Preparation: ability to read original sources in at least one ancient Indo-European language. Comparison of major Indo-European mythological and poetic traditions and reconstruction of their common sources. Topics include divinities and their names; symbolic systems in social context; myths, folk narratives, belief systems; relations with other traditions; literary continuations of mythopoeic material. Concurrently scheduled with course C160. 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.


597. Preparation for PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Information Studies

Graduate School of Education and Information Studies

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Loretta M. Gaffrey, MLS
Mahnaz Ghaznavi, MLS
Esther S. Grassian, MLS
Joan Kopilowitz, PhD
Candice A. Mack, MLS
Cynthia L. Medialvila, PhD
Luiz H. Mendes, MLS
Mary E. Menzel, MLS
Eva Mlmiick, MLS
Maureen Whalen, JD, MLS

Adjunct Assistant Professor
Susan M. Allen, PhD

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 concern, 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 technologies and cultures. Topics include social media revolutions, indigenous and non-Western uses of technology, cross-cultural design, digital media literacies, and more. Letter grading.

30. Internet and Society. (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 is-
sues in study of information technology, and social, cultural and at introductory levels. 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. Open to undergraduate and graduate students. May be repeated. Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

139. Letterpress Laboratory. (1) Laboratory, one hour. Hands-on printing experience in letterpress shop designed to give students in information studies, design, or other disciplines understanding of printing process. Basic instruction provided, and students work on group project for duration of term. May be repeated twice. P/NP grading.

180. Special Topics in Information Studies. (4) Lecture, three hours; discussion, one hour. Designed for juniors and seniors. Topics or issues related to social, cultural, economic, or political aspects of information and information systems. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with topic change. P/NP or letter grading.

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.

199. Directed Research in Information Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

200. Information in Society. (4) Lecture, two hours; discussion, two hours. Service learning course that serves as forum for discussion, learn, and understand ethical challenges of multiculturaiton information society that shape societal, professional community, and individual views and impact professional practice, decision making, and public policy. Letter grading.

201. Ethics, Diversity, and Change in Information Professions. (4) Lecture, two hours; discussion, two hours. Service learning course that serves as forum for discussion, learn, and understand ethical challenges of multiculturatein information society that shape societal, professional community, and individual views and impact professional practice, decision making, and public policy. Letter grading.

202. History of Books and Literacy Technologies. (4) Lecture, two hours; discussion, 90 minutes. Issues in history of book- and paper-based technologies. Investigation of invention of writing, diverse cultural concepts of literacy, earliest use of systematic notation systems in Mesopotamia, and current development of digital media technologies. Discussion of how by which information and knowledge are created, integrated, disseminated, organized, used, and preserved. Topics include history of communication technologies, evolution of literacy, development of information professions, and social issues related to information access. Letter grading.


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 art-ticle, book, book chapter, dissertation, or peer-reviewed in journals or by blogs or social media. Scholarly communication is becoming more atomized in a fragmented landscape. Scholarly acts are single-me- chanized in many ways. Open access publishing, now re- quired by many funding agencies and universities, has altered relationships between authors, readers, publishers, and libraries. Survey of evolving land- scape of scholarly communication, providing intro- duction to publishing, technology, and policy issues such as open access, mass digitization, institutional repositories, computable publications, and altmetrics. Letter grading.


206. Introduction to Economics of Information. (4) Seminar, three and one hour hours. Introduction to key concepts, scholars, and studies in economics of in- formation. Topics include economic value and measure- ment of information, information industries and markets, public goods theories of knowledge and in- formation, network externalities, consequences of in- tellectual property regimes, information and economic development, information work and occupations, in- formation economics, and access, productivity, paradox, and sector 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 scholarly communication theory, method, and empirical studies at intersection of scholarly commu- nication and bibliometrics, seeking to understand flow of ideas through published record, whether in print, electronic, or other form or through social media. Presentation of work of key writers and scholars in areas of informa- tion society policy and issues. Letter grading.

209. Perspectives on Information Societies. (4) Seminar, three and one half hours. Survey of theore- tical 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 postmod- dernity, and social, economic, technological, and cul- tural shifts associated with information technologies and rise of digital society. Issues include: presentation of work of key writers and scholars in areas of informa- tion society policy and issues. Letter grading.


211. Artifacts and Cultures. (4) Lecture, two hours. Discussion, two hours. Exploration of social, cultural, and technical practices through which meanings, memories, ideas, and knowledge are gener- ated. Concepts are recorded, reproduced, mediated, collected, and appropriated; they are sometimes forged, stolen, or subverted and are often shared, jux- taposited, exhibited, combined, interpreted, re- mixed, or repurposed. Their formats may be oral and written, verbal and pictorial, aural and visual, and in- scriptural and artistic. They constitute documents, records, data sets, and cultural objects through which information and evidence are authored, published, circulated, ex- changed, preserved, and accessed. Examination of these artifacts and their properties, types, and rela- tionships: media formats, genres, materials, states, content, representation. Topics include history, func- tions, aesthetic qualities, costs, affordances, and use values. Letter grading.

212. Values and Communities in Information Pro- fessions. (4) Lecture, two hours. Forum to discuss, understand, and critique value systems and power structures embedded in information and work in diverse societies. Exploration of the importance of thinking past, in, and beyond the information professions, in design, evaluation, and engagement with information institutions and technologies, ranging from archives and libraries to Internet. Aspects of information so- ciety that shape and are shaped by cultural, societal, professional, community, and individual values, in- cluding exploration of impact of such values on pro- fessional 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 founda- tions of librarianship, including professional associa- tions, 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 hour 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. Letter grading.


M229C. Introduction to Slavic Bibliography. (2) (Same as Slavic M229.) Lecture, two hours. Introduction to Slavic and East European bibliography for the humanities and social sciences. Emphasis to be de- termined by requirements and background of enrolled students. Topics include relevant library terminology and library tools; surveys of institution, bibliographic systems; acquisition of Slavic and East European biblio- graphy materials; Slavic and East European scholarship in the West; relevant reference sources, archival re- sources, and research methods; survey of online da- tabases; compilation of bibliographies. S/U grading.

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 of organizational information flow,
234. Contemporary Children’s Literature. (4) Lecture, four hours; discussion, one half hour. Study of trends and topics in children’s literature and theatrical types of literature surveyed with reference to growth and development of children. Emphasis on role of librarian in responding to needs and abilities of children through individualized reading guidance. S/U or letter grading.

236. Approaches to Materialities of Texts and Media. (4) Seminar, two hours; discussion, 90 minutes. Introduction to traditional and current thinking about materiality of texts—documents, which display and interpret, and print artifacts. Draws on conventional bibliography to introduce students to fundamentals of descriptive and analytic approaches, but also engages with theoretical positions derived from new theories in media archaeology, digital humanities, and legacy of structuralist, semiotic, and visual studies approaches. Identification and understanding of methods by which artifacts have been produced and thinking about implications of these for resituating artifacts within cultural, economic, and technological systems of value production. Letter grading.


238. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) (Same as Conservation M240). Lecture, two hours; laboratory, two hours. Requisite: course 432. Review of environmental and biological agents of deterioration, including light, relative humidity, dust, pollutants, insects, and fungi. Emphasis on monitoring to identify agents and understanding of materials sensitivities, along with protective measures for collections. Letter grading.

239. Letterpress Laboratory. (1) Laboratory, two hours. Hands-on printing experience in letterpress shop designed to give students in information studies, design, or other disciplines understanding of printing processes. Basic instruction provided, and students work on group project for duration of term. S/U grading.


245. Information Access. (4) Lecture, two hours; discussion, one hour. Requisites: courses 208, 260. Provides framework and skills enabling information professionals to link users with information. Overview of structure of literature in different fields; information-seeking behavior of user groups; communication with users; development of search strategies using print and electronic sources. Letter grading.

246. Information-Seeking Behavior. (4) Lecture, three hours; discussion, one hour. Study of factors and principles that influence the information-seeking process, with human beings needing, using, and acting on information. Topics include information theory, human information processing, information flow among social and organizational units, and search on information needs and uses. Letter grading.


251. Seminar: Specialized Literatures. (4) Seminar, four hours. Requisite: course 245. Exposure to major literatures across several broad areas: (1) arts and humanities, (2) social sciences, (3) natural sciences and engineering. Students become familiar with knowledge structures; emphasis on reference and information sources for scholarly research. Letter grading.

253. Medical Knowledge Representation. (4) (Same as Bioengineering M228.) Seminar, four hours; outside study, one hour. Emphasis on role of knowledge models in understanding and predicting medical phenomena, from local to global. S/U or letter grading.

254. 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 of computer networks, and communication. Electronic health records, and current database systems (e.g., HL7, DICOM) and current medical information systems (HIS, RIS, PACS). Advances in networking, such as wireless health systems, peer-to-peer topologies, grid/cloud computing, introduction to security and encryption in networked environments. Letter grading.

255. Medical Decision Making. (4) (Same as Bioengineering M225.) 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 common 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 indexes to legal literature. Legal research skills. Law library services and management. Letter grading.

259. Seminar: Information Access. (4) Lecture, three and one half hours. Social, cultural, and technical practices—formal and informal, institutional and professional—through which do other forms of information are organized and represented. Design, development, and evaluation of techniques and tools, including data models, metadata schemas, search engine engineering, and support for scholarship, scholarship, discovery, and use. Letter grading.

262A. Data Management and Practice. (4) Lecture, three and one half hours. Designed for MLIS and PhD students. Survey of landscape of data practices and services, including data-intensive research methods; social studies of data practices; comparisons between disciplines; management of data by research teams, centers, libraries, and data centers. Emphasis on metadata and methods of data sharing and reuse; and introduction to national and international policy for stewardship of data. Assessment of data sharing needs of one research group; and group project to curate data management plan in partnership with UCLA researchers in other academic departments. Letter grading.

262B. Data Curation and Policy. (4) Lecture, three and one half hours. Designed for MLIS students. Continuation of course 262A to address topics of data curation and policy in more depth. Data selection and archiving, and metadata for digital objects, electronic data management, data citation and metrics, technologies for data access and curation, provenance, intellectual property, policy roles of multiple stakeholders in data curation, and institutional challenges in curation and stewardship of research data. Assessment of data archives and repositories and group project to curate actual data of UCLA researchers in other academic departments. Letter grading.

266. Seminar: Information Structures. (4) Seminar, four hours. Requisites: course 260, one other information structures course. Specialized studies in selected areas of descriptive and bibliographical cataloging, subject vocabulary, data structures, and metadata. May be repeated once. Letter grading.

270. Systems and Infrastructures. (4) Lecture, four hours. Social, cultural, and technical practices through which information and media infrastructures—fom systems, pathways, channels, technologies, interfaces, standards, institutions, bureaucracies, markets—are designed, built, maintained, and evaluated. Ways in which information infrastructures both shape and are shaped by governmental policy, institutional decision making, socioeconomic trends, labor movements, technical advances, and personal and professional value systems, at levels ranging from local to global. S/U or letter grading.

271. Introduction to Computer Systems and Programming. (4) Lecture, three and one half 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 manipulating library and archive metadata, such as searching, expression construction, writing database queries, calling application program interface (API), and handling multiple serialisation formats (XML, JSON, CSV, Excel). Emphasis on computers and services with standardized metadata encodings, such as MARC and EAD. Letter grading.

272. Human/Computer Interaction. (4) Lecture, four hours. Survey of social, behavioral, design, and evaluation issues in human/computer interaction, with readings from several disciplines. Emphasis on technology demonstrations and class discussions.
273. Communities, Information, and Civic Life. (4) Seminar, three and one half hours. Investigation of concepts of culture and diversity through direct collaboration with diverse communities in Los Angeles region. Consideration of major issues around well-being of communities in contemporary America, with some eye toward larger global dynamics from fields as various as anthropology, media studies, anthropology, and urban studies. Investigation of range of theoretical, methodological, and applied literatures to development of models designed in collaboration with one community of student choice in Los Angeles area. Examination of community-based methods of interaction and fieldwork (participant, ethnography, asset mapping, and action research-based) and propose various information services based on this analysis. Letter grading.

274. Database Management Systems. (4) Lecture, three hours; laboratory, two hours. Theories, principles, and practicalities of database systems, including data models, retrieval mechanisms, evaluation methods, and storage, efficiency, and security considerations. S/U or letter grading.

275. Community Media and Design. (4) Lecture, two hours; discussion, one hour. Informational professionals, scholars, activists, and information creators/designers/architects focus on questions of culture and community to engage students in understanding information and cultural objects. Role of cultural heritage institutions within dynamics presented, but most fundamentally on how communities in partnership with information professionals can create, author, and represent information on their own and within their own terms. How new media can begin to serve as tool of empowerment rather than stratification. Study of impacts of technology on larger scales through readings and introductory sketches. Letter grading.


277. Information Retrieval Systems: User-Centered Design. (4) Lecture, two hours; discussion, two hours. Requisites: courses 245, 260. Design implications of interaction between users and features of automated information systems and interfaces that are sensitive to users. Introduces the user-centered and user-centered/interaction design. Emphasis on search strategy and subject access through use of thesauri and other vocabularies. Letter grading.

278. Information and Visualization. (4) Lecture, two hours; discussion, 90 minutes. Access to and analysis of information through visualization has become increasingly prevalent as digital tools have made creation of such visualizations easier and more popular. Many software tools for such visualizations come from statistical packages; others come from GIS or spatial mapping, while others are more diagrammatic in design. Basic organization of graphical user interfaces depends on visualization of function, structure of and assumptions about user experience, and other graphical features that embody models of information in daily use. What are ways in which organization of visualization presents arguments about knowledge? What historical and critical tools can be brought to useful dialog with contemporary visualizations? Letter grading.

279. User Experience Design. (4) Seminar, four hours; laboratory, one course from 246, 260, 276, 277, 455. Requisites: courses 200, 260. Content varies from term to term to allow emphasis on specialized topics such as vocabulary control, file design, indexing, classification, file processing. Emphasis of relevance, evaluation of information systems, and social and policy issues related to information technology and services. Letter grading.

280. Social Science Research Methodology for Information Studies. (4) Lecture, four hours. Understanding of nature, uses, and practice of research appropriate to information studies. Identification of research problems and design and evaluation of research. Social science, historical methods. Emphasis on curiosity methodology and empirical research. S/U or letter grading.


282. Design as Research Method. (4) Seminar, three and one half hours. Theories, principles, and application of design as methods for discovery, exploration, and evaluation of user requirements, functionality, values, and system structure. S/U or letter grading.

283. Research Apprenticeship Course. (2 to 4) Seminar, two hours. Use of mentorship model of training graduate students in information studies, with focus on development of graduate student research topics. Assignment of common readings related to these topics. Students have opportunity to offer 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. Identification, analysis, and discussion of critical intellectual, social, and technological issues facing the profession. Topics may include (but not limited to) expert systems, literacy, electronic networks, youth at risk, information literacy, historical bibliography, preservation of electronic media, etc. May be repeated with topic change. Letter grading.

290. Research Seminar: Information Studies. (1 to 2) Seminar, one to two hours. Designed for PhD students. Emphasis on recent contributions to theory, research, and methodology. May be repeated for credit. S/U grading.

291A. Doctoral Seminar: Theoretical Traditions in Information Studies. (4) Seminar, four hours. Nature of information studies—ontological, epistemological, and ethical accounts of information and of information arts and sciences. Conceptions, theories, and models of information, artifacts, agents, contexts, institutions, practices, properties, values, and related phenomena. Interdisciplinary context—subfields of information studies and cognate disciplines. Frameworks for theory construction, such as critical theory, discourse analysis, hermeneutics, phenomenology, semiotics, social epistemology. Letter grading.

291B-C. Special Topics in Theory of Information Studies. (4–4) Seminar, four hours. Enforced requisite: course 291A. Topics include information and evidence—record-keeping and memory-making, personal and community identity, accountability and trust. Information and design—design and implementation of information systems and services, information aesthetics. Information retrieval and knowledge organization, specific retrieval, access, and use contexts, techniques, needs, barriers. Information and power—groups, ideologies, identities, structures. Information and value—information ethics, evaluation of electronic services, information policy and law—processes, institutions, players, stakes, Information institutions and professions—domains, ecologies, cultures, communities. Economics, geography, history, philosophy, politics, sociology of information. Letter grading.

298A. Doctoral Seminar: Research Methods and Design. (4) Seminar, four hour. 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: course 298A. Topics include anthropological fieldwork methods, archival methodology, bibliographical studies, textual analysis, discourse analysis, historical methods, information visualization, network analysis—bibliometrics, informetrics, scienceometrics, social network analysis. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice assistantship as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for current or past appointment 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, exploration of issues related to 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, administration, and leadership, with specific reference to information professionals work. Letter grading.


422. College, University, and Research Libraries. (4) Lecture, four hours. Organization, administration, collections, facilities, finances, and problems of collegel and university libraries and their relationships within institutions of which they are part. Functions of research libraries and work of their staffs in serving scholars. Letter grading.


425. Library Services and Programs for Children. (4) Lecture, two hours; discussion, two hours. Theory and practice of service to children in 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 which is of interest to young adults (seventh grade and above). Discussion of special problems in working with young people and psychology of teenagers. S/U or letter grading.

427. Young Adult Services. (4) Lecture, 90 minutes; discussion, two hours. Theory and practice of service to teens and tweens in libraries. Overview of professional library service to young adults aged 11 and under; opportunities for students to gain experience in particular skills needed to provide that service. Letter grading.

428. Library Collection Development. (4) Lecture, three and one half hours. Background of publishing and book trade from digital to antiquarian pertinent to development of collections in public, school, academic, and special libraries. Emphasis on specifics of collection development and management, including evaluation of library user needs and assessments of collections. Organization and administration of acquisition and collection development departments. Letter grading.
431. Archives, Records, and Memory. (4) Lecture, four hours. Overview of historical and evolving conceptual foundations, major professional institutions, key practices, and recent issues and concerns of archival studies and American archival profession, as well as other fields interested in archives, records, and memory. S/U or letter grading.


433. Community-Based Archiving. (4) Lecture, three and one half hours. Builds on student understanding of archival practice and theory. Focus on development of practical strategies for documenting their activities; managing, collecting, and preserving their records and other historical and cultural materials; and undertaking community-centric collaborative research. Students required to reflect critically on questions about definition, community memory and recordkeeping practices, motivations, professionalism, ethics, funding and long-term sustainability, ownership, access and use, technological implementation, and collaborations. Letter grading.

434. Archival Use and Users. (4) Lecture, three and one half hours. Requires course 431. Examination of who uses archives and why, with ultimate goal of creating ways to better understand and meet needs of users. Will draw on case studies to help develop skills necessary to work with communities. Letter grading.


455. Government Information. (4) Lecture, four hours. Introduction to nature and scope of government information promulgated by federal government, as well as by state, municipal, international, and foreign governments. Problem-oriented approach. S/U or letter grading.

457. Health Sciences Librarianship. (4) Lecture, four hours. Health sciences information resources and services, management of health sciences information resources and services, health sciences environment and policies, information systems and technology. Letter grading.


464. Metadata. (4) Lecture, four hours. Introduction to variety of metadata provided for digitized and other electronic information resources. Introductory theory and practice designing and applying metadata. S/U or letter grading.

473. Information Technology and Libraries. (4) Lecture, four hours. Overview of major components of library automation: circulation control, acquisitions and serials, public access information systems, and data conversion. Relationships among various automation entities, including internal library automation, networks and vendors (such as bibliographic utilities, regional networks, and online services), and automation of parent organizations (universities, municipalities, corporations, and government agencies). Development in standards for information processing and new information technologies. Letter grading.

480. Introduction to Media Archiving and Preservation. (4) Seminar, four hours. Overview of history, conceptual foundations, policies, institutions, and professional methods that have shaped collections of audiovisual materials from early 20th century to present. Introduction to fundamental archival concepts and key practices, including collection development, appraisal, preservation, restoration, arrangement, and description, and critical analysis of their specific application to media collections and materials. Discussion of classical and emergent models for media archive administration, including funding, programming, outreach, access, and reuse; changing role of technology in media creation, collection, and preservation; ethics and community standards; different roles of public, private, and national media archives; and cultural impact of historical and contemporaneous audiovisual media. Letter grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours. Limited to departmental doctoral students. Preparation for teaching assistant appointment in departmental undergraduate courses. Principles of instructional design and evaluation, curriculum development, instructional technology use, and key teaching issues (diversity, students with disabilities, academic integrity, copyright). S/U grading.

497. Fieldwork in Libraries or Information Organizations. (4 or 8) Fieldwork, 12 or 24 hours depending on nature and complexity of experience or project. Faculty-directed field experience in approved library, archive, or other information setting. Fieldwork experiences may include opportunities in state, national, and international institutions. S/U grading.

498. Internship. (4) Discussion, to be arranged. Supervised professional training in a library or information center approved by internship coordinator. Minimum of 120 hours per term. May be repeated twice. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

506. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Directed special studies in fields of bibliography, librarianship, and information science. Variable contact time depending on nature of study or complexity of research. S/U grading.

507. Directed Studies for PhD Qualifying Examination. (2 to 12) Tutorial, to be arranged. S/U grading.


509. PhD Research and Writing. (2 to 12) Tutorial, to be arranged. S/U grading.
Applicants interested in pursuing graduate control, and social control of neuronal plasticity. biology, inflammatory cell biology, vascular biomechanics of rehabilitative medicine, muscle cell disease, auditory and visual behavior, biomechanics, cardiac physiology, diet and degenerative neurobiology, molecular neurobiology, neurotise, including developmental neurobiology, cognition in all areas of physiological science, while

Learning Outcomes
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

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
William C. Whiting, PhD
Adjunct Associate Professors
Anthony R. Friscia, 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/neral development, cellular neurobiology, molecular neurobiology, neurovascular 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, neuromotor control, and social control of neuronal plasticity.

Applications 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:

• Clear and fluent communication of scientific knowledge
• Effective written and verbal skills

Preparation for the Major
Life Sciences Core Curriculum
Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, or 30BL; Life Sciences 7A, 7B, 7C, and 23L; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, or Life Sciences 30A, 30B, and 40, or Statistics 13; Physics 1A, 1B, 4A, and 4BL, or 5A, 5B, and 5C.

To enter the Physiological Science major, students must complete Chemistry and Biochemistry 14A, 14B, and 14C, or 20A, 20B, or 30A, Life Sciences 7A, 7B, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, or Life Sciences 30A, 30B, and 40, or Statistics 13, and Physics 1A or 5A, with a minimum grade of C in each course and a grade-point average of 2.5 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 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.

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 graduate courses at the 300, 400, or 500 level may not be applied toward the elective requirement.

Each required and elective course must be taken for a letter grade, and a C average must be maintained in all upper-division courses taken for the major. A grade of C or better is required in Physiological Science 107 and 111A to enroll in course 111B. If students fail to meet these requirements, they may be dismissed from the major.

Honors Program
The honors program provides exceptional students with the opportunity for individual research culminating in an honors thesis. Requirements for admission include a 3.0 overall grade-point average (GPA) and a 3.2 GPA in the Life Sciences core curriculum. After completion of all requirements and with the recommendation of the faculty adviser, the 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 (MS) 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. (8) 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 illnesses as hypertension, 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.

13. Introduction to Human Anatomy. (5) Lecture, four hours; laboratory, five hours. Not open to Physiological Science majors. Structural survey of human body, including skeletal system, 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 parallel topics in the UCLA undergraduate curriculum. 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.

90. Introduction to Physiological Science. (2) Lecture, one hour; discussion, one hour. Limited to freshmen/sophomores. 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 involving 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 cell biology. Not open for 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 biological 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 M106.) Lecture, three 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 relevance to public policies and criminal justice system. Letter grading.

107. Systems Anatomy. (5) Lecture, four hours; laboratory, three hours; tutorial, two hours. Requisites: Life Sciences 2 or 7A, 7B, and 7C. 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, reproductive, nervous, and endocrine systems, with introduction to biomechanical principles. Letter grading.


111A-111B. Foundations in Physiological Science. (8-9) Lecture, four hours; discussion, two hours. Lecture-ethics group 111A, minimum grade of C. Preparation: 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 molecular and cellular physiology, including factors controlling membrane excitability, neuronal circuits, sensorimotor 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. Energetic principles and 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 used in pharmacological and state-of-the-art research on kidney repair and regeneration. Letter grading.

121. Disease Mechanisms and Therapies. (5) Lecture, three hours; discussion, one hour. Requisites: Chemistry 153A, and Life Sciences 2, 3, and 4 or 7A, 7B, and 7C. Designed for junior/senior Biochemistry and life science majors. Use of disease mechanisms as pedagogical tools to improve understanding of and know- ledge of basic scientific concepts. Integration of concepts from genetics, molecular and cell biology, physiology, and biochemistry to create molecular solutions to problem of inherited neuromuscular disease. Letter grading.

122. Biomedical Technology and Physiology. (4) Lecture, four hours. Requisites: courses 111A, 111B, Life Sciences 2 or 7C, Physics 1A, 1B, and 1C, or 5A, 5B, and 5C, or 6A, 6B, and 6C. Preparation: 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. Letter grading.

CM123. Neurobiology of Sleep. (4) (Same as Neuroscience M123.) Lecture, two hours; laboratory, one hour. Requisites: courses M101A and M101B or 111A and 111B or consent of instructor. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakefulness, and homeostatic regulation of sleep. How our sleep needs shaped by our evolutionary history, age, and gender. Latest insights into question of why sleep is so crit- ical role sleep plays in memory formation and, close association between sleep and metabolism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, completion of course C126 is highly recommended. Concurrently scheduled with course CM223. Letter grading.

124. Molecular Biology of Aging. (4) Lecture, three hours; discussion, one hour. Enforced requisites: Life Sciences 2, 3, 4, 23L. Quantitative description of molecular systems that underlie myriads of phenotypes in living cells. Topics include various -omics fields and their interconnections. Chemical and biological principles studied in courses 111A, 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 rhythms and circadian oscillations. Exploration of molecular, cellular, and system-level organization of these timing systems. Temporal role of these variations in maintaining homeostatic mechanisms and impact on nervous system. Concurrently scheduled with course C226. Letter grading.

C126. 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 rhythms and circadian oscillations. Exploration of molecular, cellular, and system-level organization of these timing systems. Temporal role of these variations in maintaining homeostatic mechanisms and impact on nervous system. Concurrently scheduled with course CM227. 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 153B. Lecture, two hours, discussion, three hours. Exploration of host-microbe interactions in health and disease, drawing upon basic properties for microbial communities, intersections with immunity, microbiology, and neurobiology.

M135. Dynamical Systems Modeling of Physiological Processes. (5) (Formerly numbered 135.) (Same as Neuroscience M135.) Lecture, four hours; laboratory, two hours. Examination of art of making and evaluating dynamical models of physiological sys- tems and of dynamical principles inherent in physio- logical systems. Letter grading.


141. Exercise Metabolism and Nutrition. (4) Lecture, three hours; laboratory, one hour. Examination of energy metabolism and catabolic pathways of fuel utilization during aerobic and anaerobic exercise. Requisites: course 111B, Chemistry 153A or 153D. Search for information in biological research has traditionally focused on genes and biochemical pathways. However, physical effects of cell biology are critical in physiology and disease. M153. Cell Biology and Physiology. (5) Lecture, four hours. Enforced requisites: course 111A or Neuroscience M101A. Homo sapiens are only species currently on planet to possess language. Exploration of whether other species possess language, phonological blocks for language. Topics range from examination of how bees and ants signal about food sources to whether structured songs of birds, whales, and monkeys contain compositional meaning. Topics intersect with those in fields of anthropology, biopsychology, linguistics, molecular genetics, neurophysiology, and psycholinguistics. M155. Molecular Mechanisms and Therapies for Muscular Dystrophy. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 111A (may be taken concurrently), Life Sciences 4 with grade of B or better. Causes and pathogenesis of Duchenne muscular dystrophy and some fundamental scientific findings using original scientific research. Exploration of therapies aimed at individual stages of pathogenic disease as method to develop critical expert-like thinking skills. Lectures based on experiments from primary scientific literature, and students expected to understand genetic and phenotypic animal models of muscular dystrophy, to design experiments, and to predict outcomes from research data. Letter grading.

156. Molecular and Cell Biology. (5) Lecture, four hours; discussion, one hour. Enforced requisites: course 111A or Neuroscience M101A. Variable Topics Research Seminars: Conservation. Presentations of scientific data from primary research articles and from students' own research. Letter grading.

157. Anatomy of the Vertebrate Nervous System. (5) Lecture, four hours; laboratory, two hours. Requisites: Chemistry 153A (may be taken concurrently), Life Sciences 4 with grade of B or better. Study of neurons, neurocrine sampling methods, and which types of questions can be answered in laboratory and field, as well as ethical concerns of studies and their implications for human health. Letter grading.


141. Exercise Metabolism and Nutrition. (4) Lecture, three hours; laboratory, one hour. Examination of energy metabolism and catabolic pathways of fuel utilization during aerobic and anaerobic exercise. Requisites: course 111B, Chemistry 153A or 153D. Search for information in biological research has traditionally focused on genes and biochemical pathways. However, physical effects of cell biology are critical in physiology and disease. M153. Cell Biology and Physiology. (5) Lecture, four hours. Enforced requisites: course 111A or Neuroscience M101A. Homo sapiens are only species currently on planet to possess language. Exploration of whether other species possess language, phonological blocks for language. Topics range from examination of how bees and ants signal about food sources to whether structured songs of birds, whales, and monkeys contain compositional meaning. Topics intersect with those in fields of anthropology, biopsychology, linguistics, molecular genetics, neurophysiology, and psycholinguistics. M155. Molecular Mechanisms and Therapies for Muscular Dystrophy. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 111A (may be taken concurrently), Life Sciences 4 with grade of B or better. Causes and pathogenesis of Duchenne muscular dystrophy and some fundamental scientific findings using original scientific research. Exploration of therapies aimed at individual stages of pathogenic disease as method to develop critical expert-like thinking skills. Lectures based on experiments from primary scientific literature, and students expected to understand genetic and phenotypic animal models of muscular dystrophy, to design experiments, and to predict outcomes from research data. Letter grading.

156. Molecular and Cell Biology. (5) Lecture, four hours; discussion, one hour. Enforced requisites: course 111A or Neuroscience M101A. Variable Topics Research Seminars: Conservation. Presentations of scientific data from primary research articles and from students' own research. Letter grading.

157. Anatomy of the Vertebrate Nervous System. (5) Lecture, four hours; laboratory, two hours. Requisites: Chemistry 153A (may be taken concurrently), Life Sciences 4 with grade of B or better. Study of neurons, neurocrine sampling methods, and which types of questions can be answered in laboratory and field, as well as ethical concerns of studies and their implications for human health. Letter grading.


molecular mechanisms: synaptic transmission, axonal transport, cytokines, and muscle. Classical experiments and modern molecular approaches in developmental neurobiology. P/NP or letter grading.

M180C. Behavioral and Cognitive Neuroscience. (5) Lecture, 90 minutes; discussion, 90 minutes. Required: course 111A or 118B (or Neuroscience M101A or Neuroscience M101B). Neuroscience majors must have completed one course in psychology or biology 115. Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.

M181. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M180). Integrative Biology and Physiology M117A, Psychology M181, and Psychology M117J Lecture. Three hours. Required: course 111A or 180A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychology M117A). Neuroscience majors must have completed one course in psychology or biology 115. Underlying brain systems involved in psychiatric symptoms and neurological 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.


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 course instructor consent. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. In individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


191H. Honors 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, 90 minutes. Research and results in form of oral and poster presentations. Letter grading.

192. Practicum in Systems Anatomy for Undergraduate Assistants. (3) Seminar, two hours; additional hours in laboratory setting, to be arranged. Requisite: course 107. Limited to juniors/seniors. Training and supervised practicum in systems anatomy for undergraduate assistants. Contact Undergraduate Office for further information. May not be applied toward elective requirements and may not be repeated for credit. Departmental application required. P/NP or letter grading.

193. Journal Club Seminars: Physiological Science. (1) Seminar, one hour. Limited to undergraduates. Discussion of readings selected from current literature in field. May be repeated for credit. P/NP grading.

194A. Research Group Seminars: Physiological Science. (2) Seminar, two hours. Required of undergraduates in research traineeships such as MARC and UC Leads programs. Discussion of research methods and current literature in field or research of faculty members or students. May be repeated for credit. Letter grading.

194B. Research Group Seminars: Physiological Science. (2) Seminar, two hours. Corequisites: course 198A or 198B or 198C or 199. Limited to juniors/seniors. Involvement in weekly laboratory research group meetings to encourage student participation in research and to facilitate student progress in specific research areas. Discussion of use of specific research methods and current literature in field 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.


198A. Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisites: courses 111A, 111B, 193 (193 may be taken concurrently). Limited to junior/senior physiology honors program students. Directed independent research for departmental honors 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). Letter grading.

198B. Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisites: courses 193 (may be taken concurrently). 198A. Limited to junior/senior physiological science honors program students. Continued reading and research that culminated in final honors thesis. May be repeated for credit. Individual contract required. Letter grading.

198C. Advanced Studies for Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisites: courses 198A, 198B. Open only to junior/senior physiological science honors program students. Additional course to provide further research opportunities for departmental honors 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 or Senior Project in Physiological Science. (4) Tutorial or Seminar, 12 hours. Requisites: courses 111A, 111B, 193 (193 may be taken concurrently). Limited to Physiological Science majors with advanced junior standing and 3.0 grade-point average in major courses. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. Course application must be submitted to undergraduate affairs chair during first week of classes. Eight units of course 199 may be applied toward elective requirements for major. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Advanced Experimental Statistics. (4) (Formerly numbered M200.) Lecture, four hours; laboratory, one hour. Introduction to computer simulation instead of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. S/U or letter grading.

M202. Cellular Neurophysiology. (4) (Same as Neurobiology M200F and Neuroscience M2002.) Lecture, three hours; discussion, two hours. Requisites: courses 111A (or M180A or Physics 5GC). 166. Advanced use of cellular preparation techniques, action potential generation, 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.


CM204. Human Physiological Systems for Bioengineering I. (4) (Same as Bioengineering CM202.) Lecture, three hours; laboratory, two hours. Preparation for human molecular biology, biochemistry, and cell biology: structure and function of cell components and cell biology. Broad overview of basic biological activities and organization of human body in system (organ/tissue) to systems based, with particular emphasis on molecular basis. Modeling/simulation of functional aspects of biological system included. Actual demonstration of biomaterials, as well as visits to biomedical facilities. Concurrently scheduled with course CM102. Letter grading.

M210. Molecular and Cellular Mechanisms of Neural Integration. (5) (Same as Neuroscience M230 and Physiology M210.) Lecture, four hours; discussion, one hour. Requisite: Neuroscience M202. Introduction to mechanisms of synaptic processing and problems of current interest, including regulation and modulation of tissue-specific tissue, 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.

211. Exercise Cardiovascular Physiology. (4) Attention to cardiovascular adaptations to acute exercise as well as adaptations associated with regular exercise training.

215. Molecular and Cellular Foundations of Physiology. (5) (Formerly numbered M215.) Lecture, three hours; discussion, two hours. Preparation for human molecular and cellular approaches to systems level problems. Basic foundation for study of major physiological systems, with emphasis on levels of organization from molecular to whole system. Letter grading.

CM223. Neurobiology of Sleep. (4) (Formerly numbered C223.) (Same as Neuroscience CM223.) Lecture, three hours; discussion, one hour. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, memory consolidation, genetics of sleep disorders, involved in control of sleep/wakefulness, and homeostatic regulation of sleep. How our sleep needs shaped by our evolutionary history, age, and gender. Learning mechanisms of regulation of sleep. Critical role sleep plays in memory formation and, close association between sleep and metabolism. Sleep disorders are considered as they provide insights into
mechanisms underlying sleep. For background on science of sleep and circadian rhythms, completion of course C126 is highly recommended. Concurrently scheduled with course CM123. Letter grading.


C293. Neuronal Mechanisms Controlling Rhythmic Movements. (2 to 4 each) Seminar, one hour. Topics vary from year to year, with emphasis on systems physiology, neuroethology, or behavioral physiology. Students required to present two-hour seminar. S/U or letter grading.

C297. Seminar: Muscle Cell Biology. (2 to 4) Seminar, two hours. Selected topics in muscle cell biology. Students required to present two-hour seminar. May be repeated for credit.

C298. Seminar: Nervous System Development. (1 to 4) Seminar, two hours. Preparation: basic neurobiology, such as neuronal migration, axonal growth, and neuronal plasticity. Focus on development, regeneration, and repair processes in brain and spinal cord and their clinical implications. Letter grading.

C299. Seminar: Comparative Physiology. (2) Seminar, two to four hours. Requisite: course 111A or M180A or Neuroscience M101A. Examination of central nervous system organization required for production of complex behaviors such as locomotion, mastication, and swallowing. Letter grading.

C210A. 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; analysis of electromyographic and digital computer techniques. Letter grading.

C290B. Musculoskeletal Mechanics. (5) Lecture, three hours; Requisites: 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 modeling. Concurrently scheduled with course C150. Letter grading.


C225A. Seminar: Neural and Behavioral Endocrinology. (2) (Same as Neurobiology M225) Seminar, one hour; discussion, one hour. Topics include hormonal biochemistry and pharmacology. Hypothalamic-hypophysial interactions, both hormonal and neural. Structure and function of hypothalamic. Hormonal control of reproductive and other behaviors. Sexual differentiation of brain and behavior. Stress: hormonal, behavioral, and neural aspects. Aging and reproductive behaviors and function. Letter grading.


C294. Recent Advances in Neurophysiology. (1) Seminar, one hour. Requisite: Life Sciences 2 or undergraduate degree in science. Critical examination of current research literature and publications that focus on synaptic function. Student presentations, readings, and participation in discussions required. S/U grading.


C296. 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 be repeated for credit. S/U grading.

C297. Seminar: Muscle Cell Biology. (2 to 4) Seminar, two hours. Selected topics in muscle cell biology. Students required to present two-hour seminar. May be repeated for credit.

C298. Seminar: Nervous System Development. (1 to 4) Seminar, two hours. Preparation: basic neurobiology, such as neuronal migration, axonal guidance, gene expression, and synapticogenesis. 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.

C299. Seminar: Comparative Physiology. (2) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

C310B. In-Service Practicum for Teaching Assistants in Physiological Science. (2) 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 grading.

C311. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Full or part-time enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

C312. Individual Studies for Graduate Students. (2 to 8) Tutorial, to be arranged. To enroll for letter grade, petition signed by faculty sponsor, graduate advisor, 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, provided that students enroll 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.

C313. 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.

C314. Research for and Preparation of MS Thesis. (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 course requirements. May be repeated as necessary. S/U grading.
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Lucia Re, PhD, Dottore in Lettere (Gender Studies, Italian)
Helen M. Rees, PhD (Ethnomusicology)
Bonnie Taub, PhD (Community Health Sciences)
Kevin B. Terraciano, PhD (History)
Michael F. Thies, PhD (Political Science)

Scope and Objectives
The International Institute offers a variety of area studies majors and minors through the International and Area Studies Interdepartmental Program (IDP). The overarching goal of each of these programs is to address the need for students to have a broad understanding of the international nature of the world and guide them through a course of study that allows them to apply that knowledge to a particular region of interest. The majors are structured so that area-specific content proceeds in tandem with instruction in the humanities and social sciences disciplines that provide the tools for analyzing the cultures, social structures, politics, and histories of the regional areas.

Emphasizing the contemporary world since 1750, the majors establish a common conceptual and thematic basis for study of regional areas. Students take a common core course that illuminates the international character of the contemporary world and introduces a set of contemporary issues and challenges that cross borders and regions. Thematic and conceptual courses equip students with a variety of disciplinary tools they can use to study a particular area or region. Studies culminate in a capstone seminar.

The IDP also offers a series of area studies minors that allow students to focus their interest in a particular region of the world.

Undergraduate Study
Four majors are offered: African and Middle Eastern Studies BA, Asian Studies BA, European Studies BA, and Latin American Studies BA. Seven minors are also offered: African and Middle Eastern Studies, African Studies, East Asian Studies, European Studies, Latin American Studies, South Asian Studies, and Southeast Asian Studies.

Students considering a major or minor in the interdepartmental program should consult with the academic counselor as soon as possible in their UCLA 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 academic counselor.

The majors offered in International and Area Studies are designated capstone majors. Students majoring in African and Middle Eastern Studies, Asian Studies, European Studies, and Latin American Studies must complete a capstone seminar or travel-abroad program in which they engage in an in-depth analysis of a specific region or a thematic subject that spans regions. Through conceiving and executing a project, students demonstrate their working knowledge of scholarly discourse relative to a specialized topic. Student research, analytic, and writing skills are exhibited through their capstone work, along with their collaborative and oral communication skills.

African and Middle Eastern Studies BA
Capstone Major
The African and Middle Eastern Studies major allows students to analyze the area or a subregion (e.g., Middle East, North Africa, Arab states, sub-Saharan Africa) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Learning Outcomes
The African and Middle Eastern Studies major has the following learning outcomes:
- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student's own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Admission
To be eligible to declare the African and Middle Eastern Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, 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 African and Middle Eastern 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 Afrikaans 40, Art History 28, History 9D, 10B, 97F, 97J, Middle Eastern Studies 50C, Portuguese 40A, or Theater 4, (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, 25, 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., Arabic 102C, Armenian 102C, 105C, Hebrew 102C, Iranian 102C, Turkic Languages 102C, 112C, 116C). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department. Each course must be taken for a letter grade.

Transfer Students
Transfer applicants to the African and Middle Eastern Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year.

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

The Major
The major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses. To count as...
Asian Studies BA
Capstone Major
The Asian Studies major allows students to analyze the area or a subregion (e.g., Central Asia, East Asia, South Asia, Southeast Asia) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Learning Outcomes
The Asian Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student’s own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Admission
To be eligible to declare the Asian Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Premajors
Incoming freshman and transfer students may be admitted as Asian Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

- 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 Afrikaans 135, Arabic M110, 120, C141, M151, Armenion 150A, C151, C152, C153, 160A, 160B, Art History C120, C145A, C145B, Comparative Literature M148, M162, 169, Ethnomusicology 136A, C136B, 161E (2 units), 161L (2 units), 161N (2 units), French 121, 142, Hebrew M113, C140, Iranian 141, 142, 150A, 150B, Islamic Studies 151, Languages 160, M142, M144, 151, 157, 165, and (3) one additional elective course selected from either item 1 or 2 above.


The major consists of International and Area Studies 1 (capstone seminar) and 11 upper-division courses divided among area studies and international theme 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.

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 non-language preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Preparation for the Major

Required: (1) International and Area Studies 1, (2) one area studies course from Central and East European Studies 1, Comparative Literature 1C, 2C, 4CW, Dutch 10, English 88G, French 12, 14 (or 41), 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, 25, 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 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 as the distribution between humanities and arts and social sciences is maintained. They may be selected from either of the following lists: humanities and arts group 2: French 114A, 114B, 115, 116, 117, 118, 169, German 169, 170, 171, 172, Italian 102A, 102B, 103A, 103B, 110, 113, 114A, 114B, 116A, 116B, 118, 119, 140, Russian C124C, C124D, C124G, C124N, C124P, C124T, Scandinavian 142A, 143C, 152, 154 or social sciences group 2: History 121A, 121B, 121C, 122A, 122B, 122C, 125A, 126, Political Science 111C.

Latin American Studies BA

Capstone Major

The Latin American Studies major allows students to analyze the area or a subregion (e.g., Amazonia, Caribbean, Central America, South America, Southern Cone) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Learning Outcomes

The Latin American Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student’s own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Admission

To be eligible to declare the Latin American Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Preparation for the Major

Incoming freshman and transfer students may be admitted as Latin American Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

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 50R), Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2D) or 4D), Ethnomusicology 5, 25, Geography 3, History 2B, 22, World Arts and Cultures 20, 33, and (5) two area-related foreign language sequences through the intermediate level (e.g., 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, 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 a 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 as 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 M105D, M105E, 109, 142, Ethnomusicology M116, Portuguese 143A or social sciences group 2: Anthropology 114P, 114Q, Comparative Literature 190, Film and Television 112, Geography M109, 110, 133, 138, 142, 147, 151, 159C, History M186B, Honors Collegium M152, International Development Studies 110, Sociology 116, 151, 154, 191D, 191F, World Arts and Cultures CM130.

Honor 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- or four-semester 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 grade-point average in all upper-division coursework for the major, (2) obtain agreement from a faculty member to supervise their honors thesis, and (4) formally submit an application to the honors program. Application should normally
be made during the junior year so as to best plan for completion of the honors thesis during the senior year. Contact the academic counselor for more details about the application, thesis requirements, and guidelines regarding the selection of a faculty thesis adviser.

Requirements
Honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.75 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 a concerted study of the history, culture, and society of the Africa and the Middle East from an interdisciplinary and modern perspective.

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, Geography 3, 4, 6, History 198A, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from History 9D, 97F, Middle Eastern Studies 50C, or Theater 4) 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 Arabic M110, 120, C141, M151, Armenian C151, C152, C153, Art History C120, Comparative Literature M148, M162, Ethnomusicology M161A, M161B (must be taken twice to equal one 4-unit course), Hebrew M113, M140, Iranian 141, 142, Islamic Studies 151, Jewish Studies M142, M144, 175, (2) two social sciences group 1 courses from Anthropology 135, M166Q, 167, History 105C, 107C, 109B, 111C, 167A, M184D, Honors Collegium M157, Political Science 132A, 157, 165, 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, Arabic 130, 132, 150, Armenian C155, Art History M110A, M110B, 119A, Hebrew 130, 135, History M103A, M103B, 105A, 105B, 106, 107A, 107D, 111A, 111B, 116A, 116B, Iranian M101A, M101B, M110C, 120, 131, 140, Islamic Studies M110, 130, Jewish Studies M150A, 150B, M151A, M155, M182A, M182B, or M182C.

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.

African Studies Minor
The African Studies minor is designed for students who wish to augment their major with a concerted study of the history, culture, and society of Africa from an interdisciplinary and modern perspective.

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, Geography 3, 4, 6, History 198A, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from History 9D, 97F, Middle Eastern Studies 50C, or Theater 4) 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 Arabic M110, 120, C141, M151, Armenian C151, C152, C153, Art History C120, Comparative Literature M148, M162, Ethnomusicology M161A, M161B (must be taken twice to equal one 4-unit course), Hebrew M113, M140, Iranian 141, 142, Islamic Studies 151, Jewish Studies M142, M144, 175, (2) two social sciences group 1 courses from Anthropology 135, M166Q, 167, History 105C, 107C, 109B, 111C, 167A, M184D, Honors Collegium M157, Political Science 132A, 157, 165, 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 a concerted study of the history, culture, and society of East Asia—China, Korea, and Japan—from an interdisciplinary and modern perspective.

To be admitted to the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, Geography 3, 4, 6, History 198A, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from Art History 29, Asian 30, 70A, 70B, 70C, Chinese 50, 50W, M60, M60W, Clusters 25A, History 9C, 11B, 97F, International and Area Studies 33, Japanese 50, 70, Korean 50, or M60) toward the international societies and cultures preparation requirement.

Required Upper-Division Courses (20 to 21 units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Art History C148D, C148E, C150B, Asian 130, 151, 152, 161, 162, 163, Chinese 120, 130A, 130B, 135, 139, C150A, C150B, 151, 152, 154, 155, C156, 157, CM160, 165, 174, 176, 180, 185, 191B, Comparative Literature M176, Ethnomusicology
The European Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of Europe from an interdisciplinary and modern perspective. To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1 (or 20W or 4DW), Economics 1, 2, Ethnomusicology 5, 25, Geography 3, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course from (Clusters 26A, History 1A, 8A, 8B, 8C, 11, 8E, International and Area Studies 50, Portuguese 40B, 46, and Spanish 44) toward the international societies and cultures preparation requirement.

The Latin American Studies minor is designed for students who wish to augment their major with 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.
South Asian Studies Minor
The South Asian Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of South Asia from an interdisciplinary and modern perspective.

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, Geography 3, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from Art History 31, History 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 groups 1 courses as follows: (1) two humanities and arts group 1 courses from Art History C154C, 154D, Asian 151, 162, 163, Comparative Literature C17B, Ethnomusicology 146, 147, South Asian 150, 155, (2) two social sciences group 1 courses from Asian American Studies M172C, Gender Studies M164A, History 174B, 174C, 175A, 175C, and (3) one 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: Anthropology 118P, Art History 154A, 154B, Asian 164, Asian American Studies M172A, 172B, History 174A, South Asian CM160, or 185.

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Southeast Asian Studies Minor
The Southeast Asian Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of Southeast Asia—Brunei, Cambodia, East Timor, Indonesia, Laos, Malaysia, Myanmar (Burma), Philippines, Singa-

pore, 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 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, Geography 3, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from Art History 31, History 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 groups 1 courses as follows: (1) two humanities and arts group 1 courses from Ethnomusicology 161B (must be taken twice to equal one 4-unit course), South-East Asian 130, 135, 140, 157, Theater 102B, Vietnamese M155, 180B, (2) two social sciences group 1 courses from Asian American Studies M171D, 171E, Gender Studies M164A, History 176B, 176C, 176E, 177A, 177B, 185B, 185C, Political Science 158, and (3) one 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 152, 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 310-825-4955.

International and Area Studies
Lower-Division Courses
1. Introduction to International and Area Studies. (5) Lecture, three hours; discussion, one hour. Introduction to international and area studies from interdisciplinary framework, covering themes related to international politics and markets, as well as international societies and cultures, to illuminate and clarify profoundly international character of world we live in and to introduce set of contemporary issues and challenges that cross borders and affect every region of world. P/NP or letter grading.

2A. International Minor. (1-5) Elective units on current intellectual importance, taught by faculty member. May be applied toward honors credit for eligible students. P/NP or letter grading.

2. 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, expository writing, and leadership skills. May be repeated for credit without limitation. P/NP grading.

15A-M5B-M5C. Elementary Nahuatl. (4–4–4) (Same as Chicana and Chicano Studies M5A-M5B-M5C) Lecture, five hours. Course MSA is enforced requisite to M5B, which is enforced requisite to M5C. Introduction to Aztec language of central Mexico. Coverage of basic Nahuatl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

15B-M5B-M5C. 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 requisites: courses M5A, M5B, M5C, Course M15A is enforced requisite to M15B, which is enforced requisite to M15C. Taught primarily in Nahuatl. Examination of Nahuatl (Aztec) language of central Mexico at intermediate level. Coverage of Nahuatl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

31. Introduction to Southeast Asia. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary 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.

40. Introduction to Europe. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey designed as introduction to modern Europe. P/NP or letter grading.

50. Introduction to Latin America. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey designed as introduction to modern Latin America. 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 toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. 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

110A-110B. Field Studies in International and Area Studies. (4–4) Seminar, three hours. Exploration of culture, economy, history, and politics of important location in 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 rotation change. Offered in summer only. P/NP or letter grading.

111A. Art of Citizen Diplomacy. (2) Seminar, two hours. Examination of theory, tools, and practice of civic engagement by highlighting student leadership. Provides students with practical tools in leadership, civic responsibility, and conflict resolution in order to tackle global issues such as climate change, gender equality, income equality, and human rights. Class activities to understand how ordinary citizens can build bridges between cultures. Letter grading.

111B. Introduction to Experiential Learning Abroad. (2) Seminar, two hours. Intended for students planning to participate in international study abroad program during upcoming summer. Practical tools in effective listening, intercultural understanding, understanding multiple narratives, sharpening leadership skills, and articulating thoughts. Prepares students for study abroad experiences and offers them tools to appreciate their travel. Letter grading.

M115A-M115B-M115C. Advanced Nahuatl. (4–4–4) (Same as Chicana and Chicano Studies M162A-M162B-M162C.) Lecture, three hours; discussion, one hour. Advanced Nahuatl (Aztec) language of central Mexico at intermediate level. Coverage of Nahuatl grammar, vocabulary, and basic conversation topics related to international and area studies. May be repeated for credit. 5–NP grading.

160. Selected Topics in International and Area Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more topics related to international and area studies. May be repeated for credit with topic change. P/NP or letter grading.

186. Special Courses in International and Area Studies. (4) Seminar, three hours. Program-sponsored experimental or temporary courses, such as those taught by resident or visiting faculty members. May be repeated for credit with topic change. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. 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.

Scope and Objectives

The International Development Studies major familiarizes students with urgent global issues from a variety of disciplinary perspectives, including anthropology, economics, geography, history, political science, public health, and sociology. The purpose of the curriculum is to enable students to deepen their understanding of some of the most vital questions of our era: Why are the poor countries poor? Why are the rich countries rich? What can be done to enable poorer countries to become better off? To address these questions, students focus their studies on the challenges, opportunities, and concerns of the developing world, which includes the countries of Africa, Asia, Eastern Europe, Latin America, and the Middle East.

Undergraduate Study

The International Development Studies major is a designated capstone major. Seniors must complete an advanced seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Students completing the capstone should be able to demonstrate skills and expertise acquired in earlier coursework; identify, analyze, and select relevant data from primary and secondary sources; acquire a working knowledge of broader scholarly discourse; conceive and execute an original research paper; and engage with a community of scholars, presenting their work to peers as well as providing feedback on peers’ work. The seminar culminates in a written paper or project and a formal class report.

International Development Studies BA

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 discussions
• 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.

Premajor
Incoming freshman and transfer students may be admitted as International Development Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major
Required: (1) International Development Studies 110, M120, 130, 191; (2) one research methodology course from Anthropology 138P, Asian American Studies 103, 104A, 105, M108, C142A, 187A, 191A, Chicana 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, 146, 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, 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, 126, 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, 127, 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 3.5 GPA in courses applied toward the major (including 198A, 198B, 198C) and an overall GPA of 3.0. Highest honors are awarded to students who complete the major (including courses 198A, 198B, 198C) with a 3.75 GPA and who produce an exceptional thesis.

Study Abroad
International Development Studies majors are highly encouraged to study abroad in developing areas of the world. Students can do so through a variety of programs with various lengths (summer or during the academic year). More information about study abroad programs is available through the UCLA International Education Office 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 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 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.

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. Economic Development and Culture Change. (4) (POLITICAL) Lecture, three hours; discussion, one hour (when scheduled). 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) (Formerly numbered M100B.) (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) (Formerly numbered 150.) Lecture, three hours; discussion, one hour. 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) 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.

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 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.

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 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 faculty 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, governmental, or nonprofit setting coordinated by International Development Studies. Additional supervision to be provided by internship site supervisor. Students meet with adviser and provide final reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP 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. Culminating 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 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.

International Migration Studies

Interdisciplinary Minor

Roger Waldinger, PhD, Chair

Faculty Committee

Lesly 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, M126, 164SL, C179, Economics 103, 151, English 134, German 175, History 145A, 145B, 146C, Political Science 143C, M181B, Psychology 129C, 133G, Slavic CM114, Sociology 116, 154, 156, Urban Planning 141; (2) two courses, International Migration Studies 155 and 199, to include an advanced theory course, and a thesis tutorial culminating in a thesis.
Students who take both core courses may apply the second course toward the elective requirement. This minor culminates in a thesis. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade of C– or better. Successful completion of the minor is indicated on the transcript and diploma.

International Migration Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses


193. Colloquia and Speaker Series. (2) Seminar, two hours. Introduction to current scholarship in field of international migration studies. Attendance at selected presentations with required response papers. May be repeated for credit. P/NP grading.


ISLAMIC STUDIES
See Near Eastern Languages and Cultures

ITALIAN

College of Letters and Science

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Italian

310-825-1940

Dominic R. Thomas, PhD, Chair

Professors

John A. Agnew, PhD
Massimo Ciavolella, PhD (Franklin D. Murphy Professor of Italian Renaissance Studies)

Thomas J. Harrison, PhD
Lucia Re, PhD, Dottore in Lettere
Stefania Tutino, PhD

Professors Emeriti

Luigi Ballerini, Dottore in Lettere
Franco Betti, PhD
Marga Cottino-Jones, PhD, Dottore in Lettere
Edward F. Tuttle, PhD

Associate Professor

Peter J. Stacey, PhD

Assistant Professor

Andrea Moudares, PhD

Senior Lecturer SOE
Elissa A. Tognozzi, PhD

Lecturer

Hoang T. M. Truong, PhD

Scope and Objectives

Italian art and letters provide an invaluable key to understanding many facets of European civilization. Examined in its own right or studied comparatively, Italian culture offers unmatched rewards. The Department of Italian faculty members view transmitting the Italian language as inseparable from transmission of the culture, so students consider in depth virtually all aspects of Italian civilization. After their linguistic initiation, ideally including a year abroad, students may pursue advanced studies in the department exclusively and through a wide range of interdisciplinary programs.

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 relative 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 adviser, 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 cultures, defined as Italian language, literature, traditions, geography, contemporary Italian life, and contributions of Italians to the world

• Demonstrated critical thinking

• Conception and execution of a project in Italian that identifies and engages with a specialized topic in a field related to Italian

• Information literacy by identifying and analyzing appropriate primary sources

• Demonstrated good written and oral communication skills, evidenced by a research project and presentation of work to peers under guidance of a designated faculty mentor

• Working knowledge of scholarly discourse related to a specialized topic

Anthropology Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; Anthropology 2 or 3, and 4.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Anthropology 100, 111, 130, 136A, 136B, 137P, 137Q, 138P, 140, 143, M145P, M145Q, 147, M150, 151 selected in consultation with the undergraduate adviser.

Art History Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; Art History 20 or 21, 22, 23.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Art History M113A, M113B, M113C, CM115A through 115E, 121A through 121D, C125A, 127A, 127B, 130, 132, 185 selected in consultation with the undergraduate adviser.

Classics Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; Classics 10 or 20, 40W or 41W, and Greek 1, 2, 3 or Latin 1, 2, 3, or equivalent.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; Greek 100 or Latin 100, two courses from Classics 141 through 197, and two courses from Greek 101A through 133 or Latin 101 through 133 (graduate seminars may be substituted for upper-division author courses) selected in consultation with the undergraduate adviser.

English Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; English Composition 3, English 4W, 10A, 10B, 10C.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from English 100 through 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, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Film and Television 106B, 106C, 107, 10B, 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, 199B (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, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Gender Studies 102 through M191E selected in consultation with the undergraduate adviser.

History Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46; one course from History 1A, 1B, 1C, 20, 21, 22.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from History 100 through 188 selected in consultation with the undergraduate adviser.

Linguistics Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, Linguistics 20, and three terms of a second foreign language other than Italian.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; Linguistics 103, 120A, 120B, and two courses from 110 through 191B selected in consultation with the undergraduate adviser.

Music History Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, two courses from Music History M10A, M10B, M10C.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Musicology 135A, 135B, 135C, 191A through 191G selected in consultation with the undergraduate adviser.

Philosophy Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; one course from Philosophy 1 through 31.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; two courses from Philosophy 100A, 100B, 100C, and three courses from M101A through 191 selected in consultation with the undergraduate adviser.

Political Science Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; Political Science 10, 20, 30, 40, 50.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Political Science M105 through 179 selected in consultation with the undergraduate adviser.

Portuguese Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Portuguese 1, 2,
3. 2G (or 2 or equivalent as determined by placement test), 46.

The Major

Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Portuguese 130A through 191 selected in consultation with the undergraduate adviser.

Spanish Field

Preparation for the Major

Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Spanish 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 M114 selected in consultation with the undergraduate adviser.

Study in Italy

Students are encouraged to spend up to one year in Italy either to (1) 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 subject expanding on one or more of the upper-division courses they have taken. The thesis is written under the guidance of a departmental faculty member.

To qualify for graduation with honors, Italian and Special Fields majors must complete all requirements for the major and Italian 198 in which they write a 15- to 20-page thesis in Italian that combines their two disciplines of study. The thesis is written under the guidance of a departmental faculty member.

Successful completion of the honors program is indicated on the transcript and diploma.

Italian Minor

To enter the Italian minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (12 units):
Italian 5, 6, and one course from 42A, 42B, 46, 50A, 50B.

Required Upper-Division Courses (20 units):
Italian 100 and four additional Italian courses.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Italian offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Italian.

Italian

Lower-Division Courses

1. Elementary Italian—Beginning. (4) Lecture, five hours. P/NP or letter grading.

1G. Special Reading Course. (4) Readings, three hours. Open to graduate students in other fields. Preparation for Graduate Division foreign language reading requirement. S/U grading.


2G. Special Reading Course. (4) Readings, three hours. Open to graduate students in other fields. Preparation for Graduate Division foreign language reading requirement.


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 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. (5) Lecture, four hours; discussion, one hour. Examination of issues of cultural hegemony, 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 Galileo’s scientific writings. Artworks may include those of Raphael and Michelangelo, as well as Benini’s sculptures. P/NP or letter grading.

42B. Italy through Ages in English: Modern and Contemporary Italy. (5) Lecture, four hours; discussion, one hour. Cultural and political developments from 18th century to present. Topics include Beccaria and opposition to death penalty and absolutism; Garibaldi, Italian Risorgimento, national liberation, and unification; Lombroso and criminology in new Italy; Mussolini and Fascism; Gramsci and Communism; Italian Catholicism; Berlusconi and media; migration and today’s multiethnic Italy. Assigned works include relevant literature and memoirs, music, and film, futurist and fascist art, and organized crime fiction and film. P/NP or letter grading.

42C. Italy through Ages in English: Food and Literature in Italy. (5) 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/screenings, five hours; discussion, one hour. Special topics in Italian culture as reflected and reinforced by the nation’s prime artform, stressing aesthetics and ideology of films, contemporary Italian history, and politics. Rotating topics include sex and politics, comedy, integration, family networks, and neo-realism. 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 Postmodernity. Comparative study of major literary texts and their adaptations into different forms of public spectacle, including theater, opera, and film. Works by Goldoni, Gozzi, Mascagni, Verga, Puccini, Pirandello, Calvino, Ortese, Zavattini, de Sica, and Taviani Brothers. Emphasis on development of ideas of spectacle.

77. Encounters between Christianity, Islam, and New Worlds in Age of Discovery. (5) Lecture, four hours; discussion, one hour. Examination of cultural, religious, and racial differences in early modern world of Italy, America, Africa, and Ottoman Empire. Materials include films, artworks, Dante’s Divine Comedy; Qur’an, Arab chronicles of Crusades, travel logs and letters of Christopher Columbus, Italian Renaissance epic poems, and anticolonial polemics. P/NP or letter grading.
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


102A-102B-102C. Italian Cultural Experience in the Middle Ages, Renaissance, and Risorgimento, or Other Activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

102A. Introduction to Modern Italian Literary and Cultural Studies. (4) Lecture. Three hours. Enforced requisite: course 6. Taught in Italian. Selected works of Italian literature, theater, art, and culture from medieval era to Renaissance and baroque. Emphasis on critical methods and skills for analyzing and interpreting wide range of Italian texts and cultural formations in their historical context and in comparison to contemporaneous and transnational views. Representative authors may include Saint Francis of Assisi, Dante, Petrarch, Boccaccio, Saint Catherine of Siena, Machiavelli, Giotto, Botticelli, Michelangelo, Leonardo, Caravaggio, Gasparo Stampa, Veronica Franco, Ariosto, Tasso, and Galileo. P/NP or letter grading.

103B. Introduction to Classic Italian Literary and Cultural Studies. (4) Lecture. Three hours. Enforced requisite: course 100. Taught in Italian. Selected 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 contemporaneous and transnational views. Representative authors may include Vico, Goldoni, Alfieri, Beccaria, Rosalba Carriera, Piranesi, Tiepolo, Leonardo, Marzoni, Pirandello, Aleramo, Marineti, Boccioli, Modigliani, De Chirico, Calvino, Ortesi, Pasolini, Franca Rame, and Dario Fo. P/NP or letter grading.

110C. Italian Language. Lecture. Three hours. Close study of one of world's greatest literary geniuses, particularly of his masterpiece, *Divina Commedia*. The archetypal medieval journey through the afterworld. P/NP or letter grading.


114A-114B. Middle Ages, (4-4) Lecture, three hours. P/NP or letter grading. 114A. Tradition of Love from Sacred to Profane. Study of major love poets of all time (Dante, Dolce Stil Novo poets, and Petrarch) caught between courtly and religious codes. 114B. Medieval Poetry and Society. Overview of Boccaccio's witty and comic masterpiece, *Decameron*, analyzed within context of moral and social codes of cultural period. 116A. Italian Renaissance. (4-4) Lecture, three hours. P/NP or letter grading. 116A. Renewal of Art and Thought. Study of Quattrocentro and its representatives in arts and humanistic thought (i.e., Manzoni, Botticelli, Pico, Valla, and Ficino). 116B. Power and Imagination in Renaissance. Study of artistic world of Leonardo, Raffaello, Michelangelo, Titian, and literary masterpieces of Machiavelli, Castiglione, Ariosto, Tasso, in world molded by powerful political forces, such as Roman Papacy and Medici, Gonzaga, and D'Este courts.

118. Italian Enlightenment. (4) Lecture. Three hours. Study of philosophical and political prose, satiric poetry, and drama in 18th-century Italy. Writings of Vico, Metastasio, Panini, and Alfieri. P/NP or letter grading.

119. Italian Realism and Romanticism. (4) Lecture. Three hours. Study of literary trends and masterpieces in 19th-century Italy. Readings include realist novels and short stories by Manzoni, Vega, and Deledda addressing themes of social and political unrest, patriotism, North-South conflicts, family, and gender relations. Romantic lyric poetry by Foscolo and Leopardi; expressing emotions and reflecting on erotic desire, nature versus culture, temporality, death, and yearning for aesthetic perfection. P/NP or letter grading.

120. Modern and Contemporary Literature. (4) Lecture. Three hours. Analysis of novels, short fiction, poetry, and drama in connection with modern and contemporary thought, politics, and culture. Authors may include D'Annunzio, Aleramo, Pirandello, Ungaretti, Montale, Pasolini, Orsete, Morante, Ginzburg, Calvino, Fo, Eco, Celati, and Tabucchi. P/NP or letter grading.

121. 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 works on literary and film theory. P/NP or letter grading.

122. Italian Theater. (4) Lecture. Three hours. Study of works for stage from Renaissance to present, including examples of opera and questions pertaining to acting, staging, and performance. May include texts by Machiavelli, Aretino, Alfieri, Gozzi, Goldoni, Verdi, Puccini, D'Annunzio, Amelia Rosselli, Dacia Maraini, Dario Fo, and Franca Rame. 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. Examination of contemporary Italian food culture, fashion, film, visual arts, traditional Italian opera, and study of Italian language at advanced level through reading of libretti. Six masterworks of Italian opera tradition—II Barbiere di Siviglia, La Bohème, Pagliacci, Otello, Tosca, and La Traviata—offer culturally authentic contexts to learn about operas, their characters, plots, settings, music, and their influence on contemporary culture, politics, and cultural issues raised in each opera. P/NP or letter grading.


130. Italian Novella from Boccaccio to Basiile in Translation. (4) Lecture. Three hours. Analysis of development of Italian novella in its structural, historical context, and folk material. Special emphasis on how Italian novella influenced other European literatures. P/NP or letter grading.

152. Italy between Europe and Africa. (4) Lecture, three hours. Knowledge of Italian or background in Italian studies not required. Analysis and critical discussion of works by Italian, northern European, and African 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.

M158. Women, Gender, and Sexuality in Italian Culture. (4) Same as Gender Studies M158. Lecture, three hours; discussion, one hour. Analysis of gender performance, images of masculinity and femininity, patriarchy, myths of Madonna and Latin lover, condition of women in Italian society through history, politics, literature, film, and other media. Italian majors required. P/NP or letter grading.

180. History of Italian Language. (4) Lecture, three hours. Main forces that have shaped literary or standard Italian and specific ways in which language has evolved. Tracing of its changing relations with other European languages and survey of effects wrought by historical events, changes in taste, and altered social functions. P/NP or letter grading.

189H. 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 repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Italian Studies. (4) Seminar, three hours. Research seminar with topics vary each semester. Exclusively for students who have completed at least one of the following uniquely Italian literature topics covered in regular depart
mental undergraduate courses. Reading, discussion, and development of culminating project. May be repeated once for credit. P/NP or letter grading.

195. Community or Corporate Internships in Italian. (4) Tutorial, three hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract required for 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 mentor. 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 or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199B. Directed Capstone Research in Italian and Italian and Special Fields. (4) Tutorial, to be arranged. 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 or investigation of faculty mentor. Capstone tutorial 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. Examination of the aesthetic and philosophical implications of the formalist 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 early 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. (4) Lecture, three hours. S/U or letter grading.

214B. Dante’s Other Works. (4) Lecture, three hours. S/U or letter grading.

214C. Petrarch’s Canzoniere. (4) Lecture, three hours. S/U or letter grading.

214D. Boccaccio’s Decameron. (4) Lecture, three hours. S/U or letter grading.

214E. Boccaccio’s Other Works. (4) Lecture, three hours. S/U or letter grading.

214F. Variable Topics. (4) Lecture, three hours. Variable-content seminar on themes and issues of medieval literature, with coverage of authors such as St. Francis of Assisi or Jacopone de Todi. S/U or letter grading.

215A-215B. Studies in 15th-Century Literature. (4-4) Lecture, three hours. S/U or letter grading:

215A. Variable Topics. Variable-content seminar on themes and issues of 15th-century literature, with coverage of authors such as Pulci or Poliziano. 215B. Age of Lorenzo de’ Medici and Poliziano.

216A-216E. Studies in the Renaissance. (4 each) Lecture, three hours. S/U or letter grading:

216A. Machiavellian and Renaissance Political Thought. (4) Lecture, three hours. S/U or letter grading.

216B. Ariosto and Renaissance Epic. (4) Lecture, three hours. S/U or letter grading.

216C. Tasso. (4) Lecture, three hours. S/U or letter grading.

216D. Renaissance Theater. (4) Lecture, three hours. S/U or letter grading.

216E. Variable Topics. (4) Lecture, three hours. Variable-content seminar on themes and issues of Renaissance literature, with coverage of authors such as Vannucci. S/U or letter grading.


218A-218D. Studies in 18th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading:


218B. Affieri. (4) Lecture, three hours. S/U or letter grading.

218C. Goldoni. (4) Lecture, three hours. S/U or letter grading.

218D. Variable Topics. (4) Lecture, three hours. Variable-content seminar on themes and issues of 18th-century literature, with coverage of authors such as Vico or Ludovico. S/U or letter grading.

219A-219D. Studies in 19th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading:

219A. Foscolo. (4) Lecture, three hours. S/U or letter grading.

219B. Leopardi. (4) Lecture, three hours. S/U or letter grading.


219D. Variable Topics. (4) Lecture, three hours. Variable-content seminar on themes and issues of 19th-century literature, with coverage of authors such as Carducci, Tommaso Grossi, and Pirandello. 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. (4) Lecture, three hours. Variable-content seminar on themes and issues of 20th-century literature, with coverage of authors such as D’Annunzio, Verga, Marinetti, and Pirandello. S/U or letter grading.

221B. Contemporary Poetry. (4) Lecture, three hours. Analysis of legacy of two major figures in Italian poetry from World War II—Ungaretti and Montale. Thoroug examination of movements and individual poets active in the 1960s and 1970s. S/U or letter grading.

221C. 20th-Century Narrative to World War II. (4) Lecture, three hours. 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, Bernari, Marinetti, etc. S/U or letter grading.

221D. 20th-Century Narrative since World War II. (4) Lecture, three hours. In-Nevo, exploration of some major works that have made contemporary Italian literature famous throughout the world, with special emphasis on style of formalistic modes adopted by the neo-avant-garde. S/U or letter grading.

221E. Pirandello and Contemporary Theater. (4) Lecture, three hours. Thorough reading of theatrical texts, accompanied by analysis of how the plays have been realized on stage by important directors such as Sterli, Ronconi, and the playwrights/actors themselves. Emphasis on ritualistic implications of the theatrical performance. S/U or letter 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 morphological constituents, passing to sentence sequences (coordination, elipses, etc.), S/U or letter grading.


M241. Seminar: Political Geography of Italy. (4) (Same as Geography M252.) 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.

250A-250D. Seminars: Dante. (4 each) Seminar, three hours. S/U or letter grading.


253A-253B. Seminars: Chivalric Poetry in Italy. (4 each) Seminar, three hours. Relationship between genre and its French medieval sources, with study of its evolution in Italy through Pulci, Boiardo, Ariosto, and Tasso. S/U or letter grading.


256A-256B. Seminars: 18th Century. (4–4) Seminar, three hours. S/U or letter grading.


258A-258B. Seminars: Contemporary Italian Literature. (4–4) Seminar, three hours. S/U or letter grading.

260A. Alternative Perspectives in Italian Culture: Studies of Folk Tradition in Italian Literature. (4) Lecture, three hours. Open to students with consent of instructor. Consicious 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, curses and curses, secular and ritual drama). S/U or letter grading.

260B. Women in Italian Culture. (4) Lecture. Three hours. Designed for graduate students. Conditions of women within Italian society, with concentration on specific works produced by women and/or repre- senting women’s conditions in either medieval/Renaissance or contemporary time. S/U or letter grading.

260C. Studies in Italian Cinema. (4) Lecture, three hours. Designed for graduate students. Italian cinema compared with other national cinemas, 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.

268. 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 guid-
ance and supervision of regular faculty member re-ponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495A-495B-495C. Teaching Italian at College Level. (2 to 4 each) Seminar, to be arranged. S/U grading. 495A. Study methods in preparation for teaching Italian at college level, with emphasis on teaching proficiency-oriented instruction. May not be applied toward MA course requirements. 495B. Con-tinuation of course 495A; study of contemporary is-sues in Italian language pedagogy. 495C. Effective uses of technology in foreign language classroom. Project-based seminar in which students develop ma-terials for classroom instruction as well as an elec-tronic 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

9244 Bunche Hall
Box 951478
Los Angeles, CA 90095-1478

Labor and Workplace Studies
310-206-0812

Minor e-mail

F. Tobias Higbie, PhD, Chair

Faculty Committee

Mayel S. Blackwell, PhD (Chicana and Chicano Studies, Gender Studies)
F. Tobias Higbie, PhD (History)
Janice L. Reiff, PhD (History, Statistics)
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 given 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 work-place. Students are encouraged to plan, with the faculty adviser and minor coordinator, either a coherent integration of courses according to a thematic or subtopical 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 ma-jor 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 pet-tition and meet with the faculty adviser and minor coordinator in 9244 Bunche Hall, 310-206-0812. Students are encouraged to meet early with the academic adviser to declare the minor and design a coherent program of coursework.


A minimum of 20 units applied toward the mi-nor 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. Suc-cessful completion of the minor is indicated on the transcript and diploma.

Labor and Workplace Studies

Lower-Division Courses

M1A-M1B-M1CW. Work, Labor, and Social Justice in U.S. (4-6) (Same as Clusters M24A-M24B- M24CW) 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. Exploration of ways in which work has been transformed over last century, impact of this transformation on working people, and role of labor movement as force for social justice. M1CW Special Topics, Seminar, three hours. Enforced requisite: course M1B. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.

10. Introduction to Labor and Workplace Studies. (8) Lecture, three hours; discussion, one hour. As-sumptions about work, including why some work is favored, whether those with good jobs really are better people than those without, and how this under-standing of work and values is instantiated in common sense. Unpacking of these and other assumptions about work, value, and power, with focus on low-wage workers, their communities, and their place in contemporary society. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their area expertise, to illuminate 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.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-signed as adjunct to lower-division lecture course. Indi-vidual study with lecture course instructor to explore topics in greater depth through supplemental read-ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re-quired. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (su-pervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-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 Under-graduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Introduction to Labor and Social Movements in Los Angeles. (4) Lecture, three hours; discussion, one hour. Students gain exposure to concepts of so-cial justice, social movements, and workers and labor issues in context of global city of Los Angeles. In-depth examination of experience of workers and role of labor movement in Los Angeles, both historically and currently. Topics include changing organization of work in U.S. and reconfiguration of employment rela-tionships; response of labor movement, historically and in present, to managerial initiatives; way in which organized labor has handled issues of class, race, ethnicity, gender, and immigration status; and chal-lenges facing workers in 21st century and their institu-tional responses in Los Angeles. P/NP or letter grading.

M114C. African American Political Thought. (4) (Same as African American Studies M114C and Polit-ical Science M180A.) Lecture, three or four hours; dis-cussion, one hour (when scheduled). Intensive intro-duction to African American political thought, with focus on major ideological trends and political philos-ophies as they have been applied and interpreted by African Americans. Debates and conflicts in black po-litical thought, historical contest of African American social movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

M116. Asian American Social Movements. (4) (Same as Asian American Studies M116.) Lecture, three hours. Designed for juniors/seniors. Examination of several dimensions of Asian American social movements, including grassroots, mass movement character, political and social vision, and social and political relevance to current issues. How movement participants linked struggle for change with own per-sonal transformation and growth. P/NP or letter grading.
M117. Negotiation. (4) (Same as Communication M117.) Lecture, four hours. Art and science of negotiation in securing agreements between independent parties. Theory and practice that underlies successful negotiation. Experiential course in which students 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.

M119. Asian American and Pacific Islander Labor Issues. (4) (Same as Asian American Studies M119.) Lecture, three hours. Examination of historical and contemporary issues affecting Asian American and Pacific Islander American communities, with emphasis on key role that Asian and Pacific Islander American students can play in supporting labor struggles of low-income immigrants. P or letter grading.

M121. Issues in Latina/Latino Poverty: Mexican and Central American Voices from Los Angeles. (4) (Same as Chicana and Chicano Studies M121 and Urban Planning M140.) Lecture, four hours. Examination of key issues (housing, neighborhoods and income) 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 applications them in comparative context while exploring differences between Mexican and Central American immigrants.

M122. Planning Issues in Latina/Latino Communities: Preserving and Strengthening Community Assets in Mexican and Salvadoran Los Angeles. (4) (Same as Chicana and Chicano Studies M122 and Urban Planning M171.) Lecture, four hours. How community and economic development interact, role of assets in community development, and unique synergies and pitfalls that enable or disable communitys from developing to their potential. How to strengthen and how to preserve community resources in Pico-Union neighborhood in Los Angeles. Research entails historical analysis, reviews, interviews, electronic asset mapping, web-based data processing and analysis, oral and written reports, and cyber-based research. Letter grading.

M123. Chicano/Latino Community Formation: Critical Perspectives on Mexican American History. (4) (Same as Chicana and Chicano Studies M119.) 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.

M125. U.S./Mexico Relations. (4) (Same as Chicana and Chicano 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. Farm Worker Transnational Struggle. (5) (Same as Chicana and Chicano Studies M126.) Lecture, four hours. Designed for juniors/seniors. Historical and socioeconomic context of farm worker organizing, including its multiracial origins and its influence on fight for rights 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. Three hours; discussion, one hour.

M128. Race, Gender, and U.S. Labor. (4) (Same as Chicana and Chicano 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 and economic equity pursued through organized labor and other means. Letter grading.

M134SL. Engaging Immigrants and Their Families. (5) (Same as Chicana and Chicano Studies M134SL and Civic Engagement M134SL.) Lecture, two hours; discussion, two hours; field placement, two hours. Survey of seeds of exploitative conditions in Los Angeles—truly global city acting in part to buffer, settle, and incorporate immigrants in daily life. Focus on civil society to explore multiple forms of interventions and impacts on multiple communities across Los Angeles region. Service learning partnerships focus on organizations addressing immigration concerns. Letter grading.

M136. Working Families and Educational Inequalities in Urban Schools. (4) (Same as Education M136.) Seminar, three hours; fieldwork, five hours. Exploration of complex relationship between working-class communities and educational inequalities in American urban schools. Drawing on multiple disciplinary frameworks that address issues of race, ethnicity, and immigration, schools viewed as sites where inequalities are produced and resisted. Review of history of exclusionary treatment and divergent conceptual frames that educational researchers have used to understand notion of inequality, access to quality public education, and how race, ethnicity, and class affect school experiences for working-class and poor communities. Look inside schools through community service learning opportunity to examine systems, structures, and experiences that sustain and reproduce inequality and policies that intend to remedy educational inequalities in urban schools. Opportunity to investigate issues of working-class families and immigrants and students related to their own communities and experiences. P/NP or letter grading.

140. Working It: Women, Work, and Family. (4) Lecture, three hours. Examination of working women in U.S. history from 19th-century midwives to 21st-century sex workers through film, oral history, and traditional forms of scholarship. Exploration of personal and work life of women from variety of intersectional categories including class, race, ethnicity, sexuality, and immigration status with focus on systems that have shaped workplace experiences for women over time, including gender discrimination, sexual harassment, public policy, unionization, and reproductive health care. Strategies women have utilized to shape their work experience, and to improve working conditions for themselves and their working-class sisters. P/NP or letter grading.

M144. Work, Movement, and America. (4) (Same as Chicana and Chicano Studies M144 and Gender Studies M144.) Lecture, four hours. Course on women’s movements and feminism in Latin America and the United States. Special focus on assessing and understanding role farmworker-led labor and civil rights movements have had in promoting multiethnic and multiracial campaigns for workplace justice, immigration, civil rights, and border perspective. Students develop theoretical and practical understanding of farm workers’ experiences across U.S.-Mexico border, and of legacy of United Farm Workers and other farm worker unions. P/NP or letter grading.

M127. Farmworker Movements, Social Justice, and United Farm Workers Legacy. (4) (Same as Chicana and Chicano Studies M127.) Lecture, four hours. Designed for juniors/seniors. Historical and social context of farmworker organizing, including its multiracial origins and its influence on fight for rights 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. Three hours; discussion, one hour.

M149. Media: Gender, Race, Class, and Sexuality. (5) (Same as Communication M149 and Gender Studies M149.) Lecture, four hours. Analyzes limited to junior/senior Communication Studies and Gender Studies majors and Labor and Workplace Studies minors. Examination of manner in which media culture induces perceptions of dominant and colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples and their organizations are portrayed as stereotypes and the role that Asian and Pacific Islander American students can play in supporting labor struggles of low-income immigrants. P or letter grading.

152. Work, Social Justice, and Arts. (4) Lecture, three hours; field visit. Analysis of how art (in cartoons, poster art, murals, photography, film, visual art, theater, performance, dance, and music) has been influential in popular movements, from civil rights, labor, and social justice by artists, workers’ groups, American labor movement, and other social movements such as civil rights, women’s rights, immigrant rights, and Black Lives Matter. Reflection on different discourses of art-making that have been used in specific historical struggles (1920s, Great Depression of 1930s, 1960s, to present). Examination of what Los Angeles can offer to artists in terms of art, culture, and social justice movement-making. Students visit labor, social justice, or arts organization in L.A. that is focused on themes of work, labor, and art. Exploration of spectrum of art forms (dance, music, theater, visual art, film, museum curation) that have been produced and reproduced as reflections of work, labor, and social justice struggles in U.S. P/NP or Letter grading.

M165. Sociology of Race and Labor. (4) (Same as African American Studies M165 and Sociology M165.) Lecture, three hours; discussion, one hour. Limitation to juniors/seniors. Examination 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 address race and working conditions. Impact of globalization on these dynamics. P/NP or letter grading.

M166A. Immigrant Rights, Labor, and Higher Education. (4) (Same as Asian American Studies M166A and Chicana and Chicano Studies M156A.) Lecture, three hours; discussion, one hour. New immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of immigrant students in higher education, challenges facing undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, research on immigration and immigrant rights, write poetry and art, and gain insight into 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. (Same as Asian American Studies M166B and Chicana and Chicano Studies M156B.) Seminar, two hours. Required: course M166A. Expansion of research conducted by students in course M166A involving oral histories, re-
search on immigration/labor/higher education, and
evaluation of legislation and legal issues impacting
undocumented students. Letter grading.
M166C. Research on Immigrant Students and
Higher Education. (4) (Same as Asian American
Studies M166C and Chicana and Chicano Studies
M156C.) Lecture, filedwork, and seminar. Focus
on oral histories, research on immigration/labor/
higher education, student activism, and evaluation of legal
issues impacting undocumented students. De-
signed around class project, where students work on
showcasing all material collected throughout year.
Letter grading.
M167. Worker Center Movement: Next Wave Orga-
izing for Justice for Immigrant Workers. (4)
(Same as African American Studies M167, Asian
American Studies M163, and Chicana and Chicano Studies
M130.) Seminar, three hours. Development of theo-
retical 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 multietnic and
multiracial campaigns for workplace and economic
justice. Transnational cross-border solidarity issues and
rights of undocumented workers. P/N or 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 as a 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 immi-
giants, refugees, and asylum seekers. Focus on wide array ofanaly-
tical tools with which to engage current political
debates about immigration. Using historical and modern
texts, while incorporating elements of art, popular cul-
ture, and primary sources, encourages discussion,
debate, and analysis about immigrants’ role in devel-
opment of rights and modern political debates about
immigration. Exploration of themes of inclusion, ex-
clusion, integration, and multiculturalism. Students
describe shortcomings of status-quo policies while
also imagining and prescribing arguments about where
law can and should go. P/N or letter grading.
M170. Improving Worker Health: Social Move-
ments, Policy Debates, and Public Health. (4)
(Same as Community Health Sciences CM170.) Lec-
ture, three hours; fieldwork, two hours. Examination of inter-
section of health, health care, and social justice. Analysis of social causes of health disparities, investi-
gation of historical trends and social movements, inter-
pretation of current policy debates, and develop-
ment of innovative interventions. P/N or letter grading.
M171. Labor and Economic Development. (4)
(Same as Urban Planning CM172.) Lecture, three hours.
Exploration of economic development and
diversity and indirectly influence and shape economic
development. Wide range of roles that labor plays, and
power, and could play, in promoting and supporting eco-
nomics and communities at large. Introduction to several research method techniques that are highly
effective in producing sound and rigorous studies as-
pects of labor and labor movements. May be repeated for
experimental or temporary courses, such as those
merits and various efforts to promote social justice
based on inclusive and responsive form of popular
inclusiveness through social movements and community organizing.
Study of various forms of social movements and dif-
ferent models of and approaches to community orga-
nizing and their relationship to democratic gover-
ment. P/N or letter grading.
M180. Southern California Regional Economy. (4)
(Same as Urban Planning CM137.) Lecture, three hours.
Introduction to regional economy, with emphasis
on Los Angeles and San Diego labor market composition, and review of conflicting por-
trayals depicting dynamics of region. Two all-day bus
tours of key economic regions and guest lectures by
experts in the field.
181. Los Angeles Labor and Social Science Re-
search Principles, Methods, and Practices. (4)
Lecture, three hours. Introduction to basic social sci-
entific research methods and the construction of lec-
tures, key readings, and participation in hands-on re-
search project, students develop understanding of
critical debates regarding role of research in socio-
economic context. May be repeated for credit.
182A. Oral History and Collective Memory: Re-
search Methods and Applications of 21st-Century
Narratives. (4) Lecture, three hours. Part I of two-part
series on oral history, memory, and public engage-
ment. Introduction to world of oral history, through
experience in interviewing, processing, tech-
nology, and public engagement. Readings and dis-
cussion of literature about oral history and the
medium of oral history interviews to develop historical
accounts about working class communities. Students learn
foundations for designing and executing oral history
projects and undertake independent field-
work that allows them to apply methods and
approaches studied in class. Emphasis on innovative uses of oral history interviews that bring narratives to
wide public audience. No prior knowledge or experi-
ence with interviewing and processing required. P/N or
letter grading.
182B. Oral History and Collective Memory: Re-
search Methods and Applications of 21st-Century
Narratives. (4) Lecture, three hours. Part II of two-part series. Introduction to theory, practice, and application of oral history as re-
sources and development of public uses for oral history and their
application for social justice movements. Students learn
application and digital humanities production methods that bring historical knowledge gathered in
fieldwork to wide and diverse audience. P/N or
letter grading.
187. Special Courses in Labor and Workplace
Studies. (4) Lecture, three hours; discussion, one hour. Program-sponsored experimental or temporary courses, such as those
taught by visiting faculty members. May be repeated for credit. P/N or letter grading.
188. Special Courses in Labor and Workplace
Studies. (4) Seminar, four hours. Program-sponsored experimental or temporary courses, such as those
taught by visiting faculty members. May be repeated for credit. P/N 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 assigned by instructor. May be
repeated for credit. P/N or letter grading.
LATIN AMERICAN STUDIES

Interdepartmental Program

College of Letters and Science

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Latin American Studies
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Program e-mail

Bonne Taub, PhD, Co-Chair
Kevin B. Terraciano, PhD, Co-Chair

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Efrain Kristal, PhD (Comparative Literature, French and Francophone Studies, Spanish and Portuguese)
Elizabeth A. Marchant, PhD (Comparative Literature, Gender Studies)
Fernando Pérez-Montesinos, PhD (History)
Bonnie Taub, PhD (Community Health Sciences)
Kevin B. Terraciano, PhD (History)

Scope and Objectives

UCLA has been in the forefront of U.S. universities with significant teaching and research interests in Latin American studies for more than 50 years. More than 100 faculty members from 22 departments and professional schools regularly offer a broad range of courses with an emphasis on Latin America. These course offerings in the humanities, social sciences, fine arts, and professional fields provide students with a unique opportunity to focus on Latin America, a region of growing importance.

The Latin American Studies program offers the Master of Arts degree. Students pursue specialized coursework and interests, culminating in an interdisciplinary research study. Cooperative degree programs with the UCLA schools of education and information studies, management, public health, and public affairs provide the opportunity to combine the MA in Latin American Studies with a master’s degree in a professional field.

Information on the undergraduate program in this discipline, which offers a major and a minor in Latin American Studies, can be found in the International and Area Studies section.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Latin American Studies Program offers the Master of Arts (MA) degree in Latin American Studies.

Three articulated degree programs (Latin American Studies MA/Education 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.

Latin American Studies
Graduate Courses

205. Latin Americanist Scholarship. (4) Lecture, three hours. Panoramic introduction to methods and issues in various disciplines that study Latin America, with guest lecturers from various fields. (Latin American Studies core course.)

250B. Interdisciplinary Seminar: Latin American Studies. (4) Seminar, three hours. Problem-oriented seminar on critical areas stressed in University’s cooperative programs in Latin America.

250C. Interdisciplinary Topics in Latin American Studies. (4) Reading knowledge of Spanish or Portuguese normally required. Seminar devoted to selected topics of an interdisciplinary nature.

260B. Health and Culture in Americas. (4) (Same as Anthropology M233R and Community Health Sciences M260.) Lecture, three hours. Recommended prerequisite: Community Health Sciences 123, 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.

262. HIV/AIDS and Culture in Latin America. (4) (Same as Community Health Sciences M230.) Seminar, three hours. Exploration of cultural, political, and public health context for people living with and at risk for HIV/AIDS and their families in Latin America. Public health aspects, including epidemiology, morbidity concerns and community interventions, medical anthropological study of experience of those impacted, and grass-roots responses, as well as political/economic context addressing poverty and structural violence. Letter grading.

264. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) (Same as Anthropology M233Q and Community Health Sciences M264.) Lecture, three hours. Recommended prerequisite: Community Health Sciences 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audiocassette. Letter grading.

268A-M268B. Seminars: Recent Latin American History. (4) (Same as History 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.

291A-291B. Variable Topics in Latin American Studies. (4-4) Seminar, three hours. Selected topics on Latin America. May be repeated for credit with topic change. S/U and letter grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC, S/U grading.

maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Research Seminar in Labor and Workplace Studies. (4) Seminar, three hours. Research seminar on selected topics. Reading, discussion, and development of culminating project. P/NP or letter grading.

194A. Research Group Seminars: Labor Summer Research Internship Program. (4) Seminar, three hours. Enforced corequisite: course 195A. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of labor studies or of research by faculty members and/or students. May be repeated for credit. P/NP or letter grading.

195A. Community or Corporate Internships in Labor and Workplace Studies. (4) Tutorial, one hour; fieldwork, 15 hours. Enforced corequisite: course 194A. Limited to juniors/seniors. Internship in supervised setting in community agency, labor union, or other organization concerned with work and employment issues. Placement to be arranged by instructor. Students meet on regular basis with instructor and provide periodic written reports on their experience. May be repeated for credit. Individual contract with supervising faculty member required. Offered in summer only. P/NP or letter grading.

195B. Community or Corporate Internships in Labor and Workplace Studies. (2 to 5) Tutorial, to be arranged; internship, up to 15 hours. Limited to juniors/seniors. Internship in supervised setting in community agency, labor union, or other organization concerned with work and employment issues. Placement to be arranged by instructor. Students meet on regular basis with instructor and provide periodic written reports on their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in Labor and Workplace Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised 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 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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Laura E. Gómez, JD, MA, PhD
Mark Grady, JD
Mark D. Greenberg, JD, DPhil
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Barbara Herman, MA, PhD (Gloria and Paul Griffin Professor of Philosophy)
Jill R. Horwitz, JD, MA, PhD
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Sung Hui Kim, JD, MA
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Hiroshi Motomura, JD (Susan Westerberg Prager Endowed Professor of Law)
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Alex Wang, JD, Acting
Adam D. Winkler, JD, MA
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Noah D. Zatz, JD, MA
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Professors Emeriti
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Julianne B. Cramer, JD
Steven K. Derian, JD, MA
Patrick D. Goodman, MEd
Deidre P. Lanning, JD
Jason A. Light, JD
Kerry A. Lyon-Grossman, JD
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Todd J. Schneider, JD
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Adjunct Assistant Professors
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Michael T. Roberts, JD, LLM

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Dale Cohen, JD
Kenith J. Connorn, MPH, ScD
Sean B. Hecht, JD
Cara Horowitz, JD
Jasleen Kohli, JD
Allison Korn, JD
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Daniel M. Mayeda, JD
Ayako Miyashita, JD
Tracey G. Parr, JD
Jessica S. Peake, LLB, LLM
Jocelyn F. Samuels, JD
Emily L. Scivoletto, JD, MA
Lara Stemple, JD
Alicia Virani, JD, MA
Karim H. Wang, JD
Will Watts, JD

Scope and Objectives
The UCLA School of Law is designed to produce lawyers who are well-prepared for the various private and public roles that are assigned to members of the legal profession. The school pioneered clinical teaching, is a leader in interdisciplinary research and training, and is at the forefront of efforts to link research to its effects on society and the legal profession. Students do not undertake a specific major but have the opportunity to enroll in a wide variety of courses dealing with various legal fields. The law school is unique in that it also offers students an opportunity to specialize in six specific areas of law: business law and policy; critical race studies; international and comparative law; law and philosophy; media, entertainment, and technology law and policy; and public interest law and policy.

The school offers a three-year curriculum leading to the JD degree and two advanced degrees—Master of Laws (LLM) and Doctor of Juridical Science (SJD).

Graduate Study
The School of Law offers the Juris Doctor (JD), Doctor 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

Low-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current significance, 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

156. American Political Thought Seminar. (2) Seminar, nine hours. Examination of American political thought from founding to writings of Abraham Lincoln. Readings include Locke’s thought from founding to 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, what property debtors should keep, and how debtors can put together repayment plans. P/NP or letter grading.


191. Variable Topics Research Seminars: Law—California Legal History. (4) Seminar, two hours. Requisite: 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 193. Adjust course limited to undergraduate students who 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. Individual contract required. 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 faculty mentor. Culminating scholarly paper required. May be repeated for credit. Individual contract required. 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 193. Adjust course limited to undergraduate students who 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. Individual contract required. P/NP or letter grading.

LGBTQ STUDIES

Interdisciplinary Minor
College of Letters and Science

361 Humanities Building
Box 357233
Los Angeles, CA 90095-7233

Lesbian, Gay, Bisexual, Transgender, and Queer Studies
310-825-7650

E-mail contact

Alicia Gaspar de Alba, Ph.D, Chair

Faculty Committee
Anurima Banerji, PhD (World Arts and Cultures/Dance)
Mayel S. Blackwell, PhD (Chicana and Chicano Studies, Gender Studies)
Sue-Ellen Case, PhD (Theater)
Michelle F. Erai, PhD (Gender Studies)
Alicia Gaspar de Alba, PhD (Chicana and Chicano Studies, English, Gender Studies)
Joshua J. Guzman, PhD (Gender Studies)
Michael A. Hill, PhD (Mathematics)
Gil Z. Hochberg, PhD (Comparative Literature, Gender Studies)
Ivan W. Holloway, MSW, MPH, PhD (Social Welfare)
Kerri L. Johnson, PhD (Communication, Psychology)
Peter D. Kazazas, JD (Music)
Rachel G. Lee, PhD, ex officio (English, Gender Studies)
Elizabeth A. Marchant, PhD, ex officio (Comparative Literature, Gender Studies)
Kathleen A. Mulholland, PhD (English; Film, Television, and Digital Media; Gender Studies)
Sean A. Metzger, PhD (Theater)
Mitchell B. Morris, PhD (Musicology)
Laure Murat, Doctorat en Histoire (French and Francophone Studies)
Steven D. Nelson, PhD (Art History)
Sylvan M. Oswald, MFA (Theater)
James A. Schultz, PhD (Germanic Languages)
Robert Bradley Sears, JD (Law)
Scope and Objectives

Although the initial focus in lesbian, gay, bisexual, transgender, and queer studies is usually on minority sexualities and transgenericism, it is impossible to study them in any meaningful way without raising questions about gender, race, ethnicity, economics/class, globalization, and the construction of scientific knowledge. Thus lesbian, gay, bisexual, transgender, and queer studies, which may at first seem to concern the private practices of a small number of people, inevitably leads to the much larger study of sexuality and culture. The Lesbian, Gay, Bisexual, Transgender, and Queer Studies program represents an important vantage point from which to investigate the social construction of sexual identity, social control of behavior, changing definitions of the family, and the place of sexual and gender expression in the public and private spheres. Because of the kinds of questions asked, lesbian, gay, bisexual, transgender, and queer studies is the site of some of the most exciting work being done today on the relationship between sexuality and culture.

The minor in Lesbian, Gay, Bisexual, Transgender, and Queer Studies offers students the opportunity to study sexuality from a variety of cultural and disciplinary perspectives meant to engage students in some of the most cutting-edge research in lesbian, gay, bisexual, transgender, and queer studies. In addition, seniors in the minor are expected to do a capstone internship in an international, national, or community organization, thereby acquiring invaluable firsthand knowledge, experience, and data. After completing the minor, students should be familiar with the theoretical tools that different disciplines employ to study sexuality. They should be acquainted with some of the many different ways sexuality has been organized in the past and is organized in different cultures in the present and should have an enhanced understanding and appreciation both of the sexual diversity of the world in which they live and of the complex ways in which sexuality intersects with other categories of identity and practice.

Undergraduate Study

Lesbian, Gay, Bisexual, Transgender, and Queer Studies Minor

To enter the Lesbian, Gay, Bisexual, Transgender, and Queer Studies minor, students must have an overall grade-point average of 2.0 or better.

Required Upper-Division Courses (28 units):


- Students may petition to apply a non-listed course to the minor if they show that the course is about lesbian, gay, bisexual, transgender, or queer issues and represents 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.

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. 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 with topic or instructor change. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M101A. Premodern Queer Literatures and Cultures. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M101A.) (Same as English M101A and Gender Studies M105A.) 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 writers 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.

M101B. Queer Literatures and Cultures, 1850 to 1972. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M101B.) (Same as English M101B and Gender Studies M105B.) 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, which is regarded as origins or beginning of modern lesbian and gay rights movement in U.S. Readings and films 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.

M101C. Queer Literatures and Cultures after 1970. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M101C.) (Same as English M101C and Gender Studies M105C.) 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 cultures and writings. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101D. Queer Literatures and Cultures. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M101D.) (Same as English M101D and Gender Studies M105D.) 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 English 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 current social issues 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 Orien- tation. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M115.) (Same as Gender Studies M115.) Lecture/discussion, three hours. Repeatable course; M114 or Gender Studies 10. Studies in arts, humanities, sciences, and/or life sciences on aspects of sexual orientation, gender identity, and lesbian, gay, and/or bisexual issues; variable topics may include cultural representations, historical and political contributions, life and health experiences, and queer or transgender theories; multithematic and cross-cultural emphases. May be repeated for credit. Letter grading.

M116. Sexuality and the City: Queer Los Angeles. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M116.) (Same as Gender Studies M116.) Lecture, three hours. Repeatable course; M114. Investigation of history, culture, and political economy of lesbian, gay, bisexual, and transgender Los Angeles. Letter grading.

M118. Queering American History. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M118.) (Same as History M118.) Lecture, four hours. Enforced requisite: one prior lesbian, gay, bisexual, transgender, and queer studies course. Letter grading.

Gary M. Segura, PhD (Chicana and Chicano Studies, Political Science, Public Policy)
History of sexual and gender minorities in U.S. Topics include changing norms, romantic friendships, medical discourse, liberation politics, post-Stonewall culture, AIDS, transgender movement, queer theory, and politics. P/NP or letter grading.

4125. Exploring Intersections of Ability and Sexuality. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M125.) (Same as Disability Studies M125.) Lecture, three hours. Exploration of identity as means of understanding cultural formations, dominant/ nondominant power dynamics, and systems of visual representation. Intersectional approach to explore how ability and sexuality intersect, overlap, and inform one’s identity. Utilization of scholarly texts from disability studies, lesbian, gay, bisexual, and transgender studies, popular culture, performance, and film to investigate factors that shape ability and sexuality as basis for identity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M126. Feminist and Queer Theory. (5) (Same as English M126 and Gender Studies M126.) Lecture, four hours; discussion, one hour (when scheduled). First- required prerequisite: English Composition 3. Recommended: one course from English 120, 121, Gender Studies 102, 103, or 104. Investigation of key concepts and theories of gender, sexuality, and masculinity/femininity, with focus on their interrelated significance for making of culture. Readings to be interdisciplinary, with possible emphasis on impact of changing ideas of gender and sexuality on specific historical cultures. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M132. Border Consciousness. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M132) (Same as Chicana and Chicano Studies M132.) Lecture, three hours; discussion, one hour (when scheduled). Investigation through history, popular culture, and mass media of bilingual and bicultural identity, located by geographical and cultural space between Mexico and U.S. Special attention to border consciousness as site of conflict and resistance. Letter grading.


M136. Censored Art on Trial. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M136) (Same as Chicana and Chicano Studies M136.) Lecture, four hours. Examination of censorship in visual arts, particularly art of queer Chicana/Cicano and Latina/Latino artists such as Alma Lopez, Ester Hernandez, and Alex Donis. Other censored artists include feminist artist Yolanda Lopez, queer artist Robert Mapellethorpe and David Wojnarowicz, painter Christ Otti, photographers Sally Mann and Francesca Woodman, filmmaker Enrique Goyaga, muralist Noni Olabisi, writer Salman Rushdie, and four performance artists—Karen Finlin, Tim Miller, John Fleck, and Holly Hughes—who worked in collaboration with the chair of National Endowment for Arts (NEA) in 1990 after they had successfully passed through NEA's peer review process and who came to be known as NEA Four. P/NP or letter grading.

M137. Lesbian, Transgender, and Queer Perspectives in Pop Music. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M137) (Same as Musicology M137.) Lecture, four hours; fieldwork, one hour. Survey of language popular music in 20th century, with focus on issues of gender and sexuality, and race and ethnicity, politics, and gender identity and community; representation of 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.) (Same as African American 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 and sexuality, reproductive rights, family organization, social mobility, political power, and the role of race and class. How have intersects of oppression impacted black women's historical lives? How is difference constructed through intersecting and overlapping ideologies of race and gender? How do historians uncover black women's historical lives and who are the scholars who discover them? Exploration of black women's individual and collective struggles for freedom from racism, sexism, and heteropatriarchy, as well as black women's participation in and challenge to social movements, including suffrage movements, 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, two hours; discussion, one hour (when scheduled). Interdisciplinary examination of historical development of modern prison industrial complex in U.S., with attention to impact of prison industrial complex on immigrants, including undocumented residents, populations of Amerindians, African Americans, and transgender nonconforming and lesbian, gay, bisexual, and transgender communities. Why does U.S. have largest prison population in world? What historical conditions and events led to calls for mass incarceration in U.S. Prisoner population? What policies have fueled mass imprisonment? Who is imprisoned? How have politicians used imprisonment as responses to economic transformations and scapegoating for social problems? How is current crisis analogous to or distinct from regimes of racialized punishment in prior historical moments? Letter grading.

M147A. Psychology of Lesbian Experience. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M147A) (Same as Gender Studies M147A and Psychology M147A.) Lecture, two hours; discussion, one hour. Required prerequisite: 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 experience, impact of heterosexism/stigma, gender identity, and relationships status of women and lesbians, identity development within a multicultural society, changes in psychological theories about lesbians in sociohistorical context. P/NP or letter grading.

M157. Contested Sexualities. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M157.) (Same as Gender Studies M157.) Lecture, three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of sexuality. Intersection of lesbian, gay, bisexual, and transgendered people. Variable topics include identity and community; age, class, gender, and racial diversity; and analysis of contemporary issues affecting LGBTQ+ sexualities. Letter grading.

157SL. Queer Activism and Engagement. (4) Lecture, three hours; fieldwork, five hours. Benefits students pursuing minor in Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ+) studies, those passionate about social justice, or those who want to learn new skills about community engagement. Offers opportunity to work in LGBTQ-related community organizations, to reflect on political and theoretical issues involved in such work and such organizations, and to draw ideas from various courses they have already taken and test them in settings outside UCLA. P/NP or letter grading.

157SL. Queer Activism and Engagement. (4) Lecture, three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of sexuality. Intersection of lesbian, gay, bisexual, and transgendered people. Variable topics include identity and community; age, class, gender, and racial diversity; and analysis of contemporary issues affecting LGBTQ+ sexualities. Letter grading.

170. Queer Cultures after Stonewall: Sexual Disidentification, Performance, and Community in 1970s. (5) Lecture, four hours. Exploration of intense burst of culture-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 Institutions 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. Service-learning 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 ideas 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 Trace/ies/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.

187. Selected Topics in Lesbian, Gay, Bisexual, and Transgender Studies. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies 187.) Lecture, four hours. Variable topics, four hours. Consent of instructor. 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.

191D. Topics in Queer Literatures and Cultures. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M191D.) (Same as English M191D and Gender Studies M191D.) Seminar, three or four hours. Enforced prerequisite: English Composition 3. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. P/NP or letter grading.

191E. Topics in Gender and Sexuality. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M191E.) (Same as English M191E and...
Life Sciences / 489

Scope and Objectives

Students who wish to study life sciences have a choice of eight majors, all of which lead to a Bachelor 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 (Integrative Biology and Physiology Department), and Psychology (Psychology Department). This choice reflects the diversity of undergraduate instruction in life sciences at UCLA. Despite this diversity, all of these majors require a common core of introductory courses that forms the foundation for any study of life sciences and that is required for more advanced courses in each major. The common core includes courses in chemistry, physics, and mathematics, as well as introductory courses in evolution and biodiversity, cellular and organismal biology, molecular biology, and genetics. During the first two years, 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. For additional information on the Life Sciences core curriculum, see the curriculum website.

Students considering one of the life sciences majors are encouraged to declare a major as early as possible, even in their first year. In this way, they are identified by the life sciences advising offices and receive important curricular and other information. Because the core curriculum prepares them for any of the eight majors, they have the flexibility to switch to another life sciences major at any time during their progression through the core curriculum. Note: The Marine Biology and Psychobiology majors may require some courses in addition to the life sciences core curriculum as part of the preparation. Consult the course requirements for both majors.

Undergraduate Study

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, 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, 23L, and 107. They may not substitute courses in either sequence.

Each core curriculum course must be passed with a grade of C− or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade of D or F in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to 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 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 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—Life Sciences 100HA, 100HB, 100HC—do not involve pre-existing laboratory experiments. Syllabi for the courses are instead based on individual research projects whose outcomes students discover through the course of their studies. It is anticipated that only about one third of the students who complete course 10H will subsequently enroll in course 100HA, and students are advised that they can benefit significantly from course 10H alone.

Each course must be taken for a letter grade. Under special circumstances, one course may be waived for students who have prior research experience in fields covered by the courses. Students who complete the required courses receive a certificate of merit indicating their completion of the consortium.

To participate, students must be accepted into the Undergraduate Research Consortium in Functional Genomics. Interested students should contact the URCFG coordinator in the Molecular, Cell, and Developmental Biology Student Affairs Office, 128A Hershey Hall, 310-825-7109, for information regarding admission and an application. Applications are due no later than Friday of the fourth week of the term prior to the term in which students plan to enroll in course 10H.
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. Letter grading.

2. Cells, Tissues, and Organs. (4) Lecture, three hours; discussion, 75 minutes. Enforced requisites: Chemistry 14A or 20A. Introduction to basic principles of cell structure, organization of cells into tissues and organs, and principles of organ systems. Letter grading.

3. Introduction to Molecular Biology. (4) Lecture, three hours; discussion, 75 minutes. Requisites: course 2 (enforced), Chemistry 14C or 30A (may be taken concurrently). 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 biochemistry and molecular biology. Letter grading.

4. Principles of Cell and Molecular Biology Laboratory. (1) Laboratory, three hours; discussion, one hour. Enforced corequisite: course 3. Introductory wet-laboratory experiences for upper-division laboratory courses for all life sciences departments. Use of wet-laboratory/bioinformatics methods and tools applicable in variety of biological fields, molecular biology, 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.

5. 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 a variety of quantitative concepts that are relevant to biology. Designed to enhance quantitative skills that are essential for success in life sciences, chemistry, mathematics, and physics courses that make up core curriculum for life sciences majors at UCLA. Biological examples used throughout to gain appreciation of relevance of mathematics to biology. Letter grading.

23L. Introduction to Laboratory and Scientific Method. (2) Laboratory, three hours; discussion, one hour. Requisite: course 2 or 7B. Recommended to be taken concurrently with course 3, 4, or 7C. Introductory life sciences laboratory designed for undergraduate students to conduct wet-laboratory cutting-edge bioinformatics laboratory experiments. Students work in groups of three conducting experiments in areas of physiology, metabolism, cell biology, genomics, bioinformatics, and biotechnology. 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 a tool for understanding dynamics of biological systems. Fundamental concepts of single-variable calculus and development of simple- and multi-variable differential equation models of dynamical processes in ecology, physiology, and other subjects in which quantities change with time. Use of computer software program Sage for solving problems, plotting, and dynamical simulation in laboratory. Letter grading.

30B. Mathematics for Life Scientists. (5) Lecture, three hours; laboratory, two hours. Enforced requisite: course 30A. Introduction to concept of matrices and linear transformations to equip students with some basic tools to understand dynamics of multivariable nonlinear systems. Examples from ecological, physiological, chemical, and other systems. Letter grading.

40. Statistics for Biological Systems. (5) Lecture, three hours; laboratory, two hours. Requisite: course 30A. Designed for life sciences students. Introduction to statistics with emphasis on computer simulation of chance probabilities as replacement for traditional formalized procedures, allowing for deeper understanding of statistical concepts, and are applicable to wider class of distributions and estimators. Students learn simple programming language to carry out statistical simulations, and apply them to classic problems of elementary statistics. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Written permission required. Enrolled students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Enrolled students. Honors contracts. P/NP or 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. Requisite or corequisite: course 15. Broad introduction to biology, with focus on scientific literacy and thinking. Topics include scientific thinking and decision making to interpret and analyze data, evolution and genetics, physiology (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 a variety of quantitative concepts that are relevant to biology. Designed to enhance quantitative skills that are essential for success in life sciences, chemistry, mathematics, and physics courses that make up core curriculum for life sciences majors at UCLA. Biological examples used throughout to gain appreciation of relevance of mathematics to biology. Letter grading.

23L. Introduction to Laboratory and Scientific Method. (2) Laboratory, three hours; discussion, one hour. Requisite: course 2 or 7B. Recommended to be taken concurrently with course 3, 4, or 7C. Introductory life sciences laboratory designed for undergraduate students to conduct wet-laboratory cutting-edge bioinformatics laboratory experiments. Students work in groups of three conducting experiments in areas of physiology, metabolism, cell biology, genomics, bioinformatics, and biotechnology. 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 a tool for understanding dynamics of biological systems. Fundamental concepts of single-variable calculus and development of simple- and multi-variable differential equation models of dynamical processes in ecology, physiology, and other subjects in which quantities change with time. Use of computer software program Sage for solving problems, plotting, and dynamical simulation in laboratory. Letter grading.

30B. Mathematics for Life Scientists. (5) Lecture, three hours; laboratory, two hours. Enforced requisite: course 30A. Introduction to concept of matrices and linear transformations to equip students with some basic tools to understand dynamics of multivariable nonlinear systems. Examples from ecological, physiological, chemical, and other systems. Letter grading.

40. Statistics for Biological Systems. (5) Lecture, three hours; laboratory, two hours. Requisite: course 30A. Designed for life sciences students. Introduction to statistics with emphasis on computer simulation of chance probabilities as replacement for traditional formalized procedures, allowing for deeper understanding of statistical concepts, and are applicable to wider class of distributions and estimators. Students learn simple programming language to carry out statistical simulations, and apply them to classic problems of elementary statistics. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Written permission required. Enrolled students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Enrolled students. Honors contracts. P/NP or 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.
Linguistics / 491

Scope and Objectives

The goal of the Department of Linguistics is the enrichment of knowledge about the nature, grammar, and history of human language. Linguistics is a theoretical discipline, akin to philosophy, anthropology, and cognitive psychology. It is important for prospective students to understand that studying linguistics is not a matter of learning to speak many languages. Linguistics courses draw examples from the grammars of a wide variety of languages, and the more languages linguists know about in depth (as distinct from possessing fluency in the use of them), the more likely they are to discover universal properties. It is also possible to pursue these universal aspects of human language through the intensive in-depth study of a single language. This accounts for the high proportion of examples from English and familiar European languages found in linguistics courses and research publications.

The core areas of linguistic theory are phonology (with its roots in phonetics), morphology, syntax, and semantics. A grammar is a system of rules that characterize the phonology, morphology, syntax, and semantics of a natural language. The properties of grammars are the central focus of linguistic theory.

Because language is central to all humanistic disciplines, as well as to several social sciences areas, it is studied from many points of view. Linguistics itself cannot be said to recognize a single optimal approach to the subject. Hence, the courses provide a variety of approaches that reflect the diversity of the field.

The Linguistics Department has consistently been ranked among the very best linguistics departments in the country. It offers programs leading to the Bachelor of Arts, Master of Arts, and PhD degrees.

Undergraduate Study

The majors described below are of three types: (1) a major that concentrates entirely on general linguistics, (2) several majors that combine the basic courses of the general program with a language concentration or other related fields, and (3) a major in Applied Linguistics. The combined majors in conjunction with instructional certification programs are especially appropriate for students who have non-university teaching careers as goals.

A 2.0 grade-point average in linguistics courses is required for all Linguistics Department majors.

Linguistics BA

Linguistics is the study of languages as a general phenomenon. It aims to help answer broad questions concerning the nature of human cognition and communication. Students will learn about language universals as well as the ways in which languages differ from one another in terms of the 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 lan-
guage 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 31, 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 years of one foreign language and one year of a second foreign language (at least one year must be in a language other than those in the Romance, Slavic, or Germanic families).

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

**The Major**

*Required:* Eleven upper-division or graduate courses, including Linguistics 103, 120A, 120B, two courses from 110, 120C, and 190 (or 132), and two courses from 165A, 165B, and 165C (students may substitute courses 200A, 200B, and 200C for 165A, 165B, and 165C respectively if they receive grades of A in 120A, 120B, and 120C respectively and have consent of instructor). Courses 165A, 165B, and 165C, or 200A, 200B, and 200C, are recommended for students planning linguistics graduate work. The remaining four courses are electives, three of which must be linguistics courses (no more than one course from 197, 198A, and 199 may be applied toward the major). The other course may be in linguistics or in another field as follows: Classics 180, English 113A, 113B, Philosophy C127A, C127B, 172, Psychology 120A, 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:* 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 have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth term of work in German).

**Transfer Students**

Transfer applicants to the Applied Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of one foreign language, one introduction to linguistics course, one introduction to psychology course, and one introduction to linguistic anthropology course. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**

*Required:* Ten upper-division courses as follows: Linguistics 102 (or 103), 119A (or 120A), 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, 152Q, 152R, 153, 154P, 154Q, 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 149A through 149F. 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 elective requirement, but not Korean 100B or 100C). No more than one course from Linguistics 197, 198A, and 199 may be applied toward the major.

**Linguistics and Anthropology BA**

The Linguistics and Anthropology major combines the basic courses of the general linguistics program with that of anthropology, the study of humankind. Students will learn linguistic theory, the study of the structure of human language generally. They will also learn the many ways in which language affects human history, social identity, social interaction, and politics. Successful graduates will be well acquainted with linguistic structure, language diversity, and language typology, as well as the anthropological and social consequences of the nature of human language.

**Learning Outcomes**

The Linguistics and Anthropology major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research
Preparation for the Major

Required: Linguistics 20, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language (at least three terms must be in a language other than those in the Romance, Slavic, and Germanic families). Anthropology 4 is strongly recommended, when offered.

Transfer Students

Transfer applicants to the Linguistics and Anthropology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course and two years of one foreign language 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). 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), 1146; two courses from 114, 120C, 144, 160, 161, 170; one course from Anthropology 151 or Sociology M124A; and three upper-division electives from the Anthropology 130 series (one course only), the 150 series (one course only), the 160 series (one course only). Sociology M124A, 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 other 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 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, 165A (or 165B), one upper-division elective in linguistics; for the classical Japanese track: Japanese 100A, 100B, four courses from CM122, 140A, 140B, 140C, 1419; 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, 130A, 130B; for the Korean track: Korean 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, 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, one critical reading and writing course, one year of English literature survey courses, one symbolic logic course, and two years of one...
foreign language and one year of a second foreign language.

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

The Major

Required: Twelve upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper-division elective in linguistics, English 113A, 113B, 120, and three electives from 140A, 140B, 150A, 150B, 151, the 150 series (one course only), the 160 series (one course only), the 170 series (one course only).

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: a year 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 expose 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, Psychology 10, 85A, 85B, 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 Psychology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: a year of 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, 85A, 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 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 major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Spanish, one Spanish composition course, one Spanish 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), one additional upper-division course in linguistics, 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 of a piece of research in linguistics completed at UCLA.

Computing Specialization

Students in any of the departmental majors (except Linguistics and Computer Science) may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Program in Computing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Linguistics Minor

The Linguistics minor is designed for students where training in linguistic analysis could be an enhancement to their major programs and to students who are interested in language(s) but do not have time in their undergraduate programs to pursue multiquarter language sequences. In addition, the minor provides students with a way to design custom joint degrees with linguistics where the Linguistics Department does not have an existing joint degree program combining linguistics and another field.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Course (5 units): Linguistics 20.

Required Upper-Division Courses (27 to 30 units): Six courses, which must include Linguistics 102 (or 103), 119A (or 120A), 119B (or 120B), two elective courses selected from 104 through 185B, and an additional elective linguistics course, which may be upper- or lower-division.

Students who plan to complete the 165 course series must first take the corresponding 120 course series.

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 Linguistics offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Linguistics.

American Sign Language

Lower-Division Courses

8. 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.
9. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, 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.
10. Tutorial (supervised research or 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 enroll in minimum of 2 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M115. Enforcing Normalcy: Deaf and Disability Studies. (4) (Same as Disability Studies M115.) Lecture, three hours. Exploration of historical, medical, social, political, philosophical, and cultural influences that have shaped the categories of normalcy, 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 and defined abnormality in 20th centuries to present. Primary attention to rise of medical authority in West, history of eugenics, and contemporary bioethics issues confronting disability and deaf communities. P/NP or letter grading.

M120. History of Deaf Communities in America. (4) (Same as History M147E.) Lecture, three hours: discussion, one hour (when scheduled). Designed for juniors/seniors. Study of history and culture of deaf communities in America (circa 1800 to present) by exploring major events involving 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 educational and political movements, description of America's deaf community and development of deaf identity over time. P/NP 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 historical changes in products of mass media within deaf community and ways of critiquing media sources. 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.

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/NP 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/NP 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 particular languages. Methods of classifying languages into families and types. Detailed discussion of representative languages with audiovisual illustrations to acquaint students with distinctive features of several key language families. Discussion of such linguistic concepts as pidgins and creoles, unaffiliated languages, language contact, and language endangerment, together with related sociopolitical issues. P/NP or letter grading.

M7. Language and Identity. (4) (Same as Philosophy M244.) 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; maligning of racial minorities; and, in some cases, incitement to violence through hate speech. Provides 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 ways and meaning of laughter when language is used 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 from all cultural and linguistic backgrounds to adapt language for humorous purposes, albeit shaped by culture as to what counts as funny. Satisfies Writing II requirement. P/NP or letter grading.

M10. Structure of English Words. (5) (Same as English M154.) Lecture, four hours; discussion, one hour. Introduction to structure of English words of classical origin, including most common base forms and rules by which alternate forms are derived. Students may expect to achieve substantial enrichment of their vocabulary while learning about etymology, semantic change, and abstract rules of English word formation. P/NP or letter grading.

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 or 10W. Introduction to rich varieties of topics, approaches, 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. P/NP or letter grading.

18. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
nological, morphological, syntactic, and semantic structures and analysis, 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 topics to be offered in specific term. May be repeated for credit. 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 maximum of 12 units. Individual honors 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. May be repeated for maximum of 6 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Linguistics. (1 to 4) Seminar, three hours; fieldwork, two hours. Variable topics of current interest. May be repeated for credit in greater depth through supplemental readings, papers, or other activities. Topics in 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.

110G. Introduction to Historical Linguistics for Graduate Students. (2) Lecture, four hours. Limited to and designed for entering linguistics graduate students only. May be repeated for credit in greater depth through supplemental readings, papers, or other activities. Topics in historical linguistics. S/U 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 104. Course 111 will focus on 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). Group or individual assignment. Study of language, with emphasis on properties of construction in American indigenous languages; writing systems for American indigenous languages; American indigenous languages in social and historical context. P/NP or letter grading.

119A. Phonological Structures. (5). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 20, 102 or 103. Not open for credit to students with credit for course 120A. Sound patterns in world 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 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 requisite to 120B. Descriptive analysis of morphological and syntactic structures in natural languages; emphasis on insight into nature rather than linguistic formalization. P/NP or letter grading.

120C. Semantics I. (5). Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120B. Survey of most important theoretical and descriptive questions about nature of meaning. P/NP or letter grading.

127. Syntactic Typology and Universals. (5). Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 20. Study of similar 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/local/possession, causation, interrogation, reflexivization, relativization, attribution (adjectives), time (tense and aspect), and background (subordination). Data from a range of languages presented and analyzed. P/NP or letter grading.

C128A-C128B. Romance Syntax: French. (4–4) Lecture, four hours. Preparation: knowledge of French or one Romance language. Enforced requisite: course 120B. Course C128A is enforced requisite to C128B. Aspects of structure of French language, with emphasis on process of construction not found in English. Concurrently scheduled with courses C226A-C226B. 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 language development. Topics include infant speech perception and production, development of phonology, morphology, syntax, and word meaning. P/NP or letter grading.

132. Language Processing. (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 models. Topics include word understanding (with emphasis on spoken language), parsing, anaphora and inference, speech error models, and models of sentence production and imitation of syntactic structure during 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 human brain. Topics include methodologies to investigate normal and atypical hemispheric specialization for language and children and adults with acquired and congenital language disorders. Concurrently scheduled with course C235. P/NP or letter grading.

C140. Bilingualism and Second Language Acquisition. (5). Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 119A or 120A, 119B or 120B. Introduction to the relationship between the acquisition of 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 rational and natural base for designing, developing, and evaluating evaluation of second language instruction programs. P/NP or letter grading.

144. Fundamentals of Translation and Interpreting. (5) Lecture, four hours; discussion, one hour. Recommended preparation: knowledge of English and at least one other language. Enforced requisite: course 20. Examination of specific lexical, structural, and cultural aspects of translating and interpreting between two languages.
or dialects. Survey of development of translation theories and rise of community interpreting and critical role of language brokering. P/NP or letter grading.

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 language and classification of experience. Holistic and functional analysis 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 Philosophy 120.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 1 or 20. Indo-European languages (ancient and modern), including their relationships. Presentations focus on case studies. Student projects in assembling primary data and creating annotated texts with commentary. P/NP or letter grading.

160. Field Methods. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 102 or 103, 119A or 120A, 119B or 120B. Analysis of language unknown 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. Issues in documenting languages, including collection of primary data using linguistic field methods; organizing data into documents (annotated texts, dictionaries, multimedia presentations, technical articles), audiences for language documents (speakers of target languages, linguists, scholars outside linguistics, general public), presentation and storage of data (publication, online documentation, electronic and physical archives), documenting endangered languages, and organizations and initiatives for documenting endangered languages. P/NP or letter grading.

165A. Phonology I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120B. To be taken in term following completion of course 120A as or as soon as possible thereafter. Further study in phonological theory and analysis: autosegmental theory, syllable structure, metrical theory, interface of phonology and grammar. P/NP or letter grading.

165B. Syntax II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120B. To be taken in term following completion of course 120A or as soon as possible thereafter. Requisite for students who plan to do graduate work in linguistics. Form of grammars, word formation, 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: 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 Sociolinguistics. (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; problems of multilingual societies. P/NP or letter grading.

175. Linguistic Change in English. (5) Lecture, four hours. Requisites: courses 110, 120A, 120B. Principles of linguistic change as exemplified through detailed study of major linguistic changes. P/NP or letter grading.


M177. Structure of Korean. (4) (Same as Korean CM125.) 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, typological features, and phonological structure of Korean. Letter grading.


185A. Computational Linguistics I. (5) Lecture, four hours; laboratory, one hour. Requisites: courses 120B, Program in Computing 10C or Computer Science 32). Recommended: course 165B or 200B. Overview of formal computational ideas underlying kinds of grammars used in theoretical linguistics and psycholinguistics, and some connections to applications of natural language processing. Topics include recursion, relationship between probabilities and grammars, and parsing algorithms. P/NP or letter grading.

185B. Computational Linguistics II. (5) Lecture, four hours; laboratory, one hour. Requisite: course 185A. Extensions of basic language processing techniques to natural language processing. Recent models of syntactic, semantic, and discourse analysis, with particular attention to their linguistic sophistication and psychological plausibility. P/NP or letter grading.

Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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: Linguistics. (4) Seminar, three hours; discussion, one hour. 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.

Variable Topics Research Seminars: Linguistics. (2 or 4) Seminar, three hours. 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.

191B. Variable Topics Research Seminars: Linguistics. (2 or 4) Seminar, three hours. 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.

193B. 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 courses. Students assist in preparation of materials and development of innovative programs under guidance of faculty members and teaching assistants. May not be applied toward course requirements for any Linguistics Department major. Individual contract required. Information and contracts may be obtained from Linguistics Department. P/NP grading.

197. Individual Studies in Linguistics. (2 to 4) Tutorial, three hours. 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 in course 192A or equivalent course in syntax. 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. Consult 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. Recommended: course 198A. Limited to juniors/seniors. Completion of honors thesis or comprehensive research project begun in course 198A under direct supervision of faculty member. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Linguistics. (4) Tutorial, to be arranged. Limited to senior Linguistics majors. Supervised individual research or investigation of linguistic topic selected by student under guidance of faculty mentor. Culminating paper required. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

200A. Phonological Theory I. (4) Lecture, four hours. Preparation: graduate linguistics student or grade of A in course 120A or equivalent course in phonology. Courses 200A and 201A form two-course survey of current research in phonological theory. Interaction of phonology with morphology and syntax, syllable structure, stress, and syllable organization.

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 fundamental theories of constituent structure and syntax of predicates, arguments, and grammatical relations. Topics include levels of representation, X-bar theory, case theory, thematic roles, the lexicon, grammatical functions, changing rules, head-complement relations. S/U or letter grading.

200C. Syntactic Theory II. (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 fundamental theories of constituent structure and syntax of predicates, arguments, and grammatical relations. Topics include levels of representation, X-bar theory, case theory, thematic roles, the lexicon, grammatical functions, changing rules, head-complement relations. S/U or letter grading.
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. Course 200B. In-depth introduction to selected topics in syntactic theory and topics selected from following areas: WH-movement and related rules, subcategorization and other constraints on movement; ECP and related conditions on distribution of empty categories; Resumptive pronoun construction; parametric variation in movement constructions; LF WH-movement; filters; reconstruction; parasitic gaps; branching control; theory of null subject position; S/U or letter grading.


203. Phonetic Theory. (4) Requisite: course 120A. Preliminary to speech analysis. Functional anatomy of vocal organs; fundamental principles of acoustics and physiology 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; laboratory, one hour. Course 103. Use of laboratory equipment to investigate articulatory, acoustic, and perceptual properties of speech. Topics include experimental 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 related to linguistic phonetics. Topics include physiology of vocal tract and models of speech production and articulatory/acoustic relations. Emphasis on use of laboratory methods such as acoustic transducers, electroglottography, static and electroglottalograph, electromagnetic articulography, and imaging techniques. S/U or letter grading.

204C. Speech Perception. (2 to 4) Lecture, four hours. Recommended requisite: course 104 (or 204A) or 111 (or 211). Limited to graduate students. Survey of topics in speech perception research. Topics include elementary auditory perception, 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 spotting. S/U or letter grading.


207. Pragmatic Theory. (2 to 4) Lecture, four hours. Requisite: course 200 or 200C. Introduction to formal pragmatic theory. Topics include speech act theory, imperatives, and other illocutionary acts; issue/issue-not-at-issue distinction and other projective content; Gricean implicature, conversational implicature, and local implicature; and formal treatments of 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 theoretical linguistics and psycholinguistics. Topics include role of recursion, relationship between structure and interpretation (both PF and LF), relationship between grammars and probabilities, and relationship between derivations and parsing. S/U or letter grading.

209B. Computational Linguistics II. (5) Lecture, four hours; laboratory, one hour. Requisite: course 209A. Extensions of basic language processing techniques to natural language processing. Recent models of syntactic, semantic, and discourse analysis, with particular attention to the linguistic contribution; effects of memory and psychological plausibility. S/U or letter grading.

209C. Computational Semantics. (4) Lecture, four hours. Preparation: basic knowledge of semantics. Requisite: course 105A or 2. 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 equipment used for recording and analyzing intonation, and students learn to transcribe intonational elements. Letter grading.

212. Learnability Theory. (4) Lecture, four hours. Survey of some of most significant results on capabilities of learners, given precise, and abstract specifications 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.


214. Survey of Current Syntactic Theories. (4) Lecture, four hours; laboratory, one hour. 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 powers. S/U or letter grading.

215. Syntactic Typology. (2 or 4) Lecture, four hours. Requisite: course 200B. Current results in word-order universals; genetic classification of world’s languages; cross-language properties of specific construction types, including relative clauses, passives, positive and negative coreference; constraints on movement systems, deixis systems, and types of sentence complements. S/U or letter grading.

216. Syntactic Theory III. (4) Lecture, four hours. Requisite: course 218B. Selected topics on syntactic theory of anaphora and quantification from the following areas: scope; theory of binding conditions (pronouns, anaphors, etc.); theory of locality conditions in binding theory; parametric variation in binding; quantifier and bound variable; empty and unselective binding; strong and weak crossover; superlative; scope interactions; complex quantifier structures. S/U or letter grading.

217. Experimental Phonology. (4) Lecture, four hours. Requisite: course 200A. Survey of experimental work that bears on claims about speakers’ knowledge of phonology, including 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 features of formal syntactic and semantic formal language theory, variable binding operators. May be repeated for credit with consent of instructor. S/U or letter grading.

219. Phono-logical Theory III. (4) Lecture, four hours. Requisites: course 210A. Current research and issues in phonological theory. Topics include structure of phonological representations, relations between representations and grammatical structure, and explanations for phonological typology. S/U or letter grading.

220. Linguistic Areas. (4) Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200A, 165B or 200B. Analysis and classification of languages spoken in a selected area (e.g., Africa, the Balkans, South East, Southeast Asia, Australia, Aboriginal North America, Aboriginal South America, Far East, etc.). May be repeated for credit with topic change.

222. Semantic Theory III. (2 or 4) Lecture, four hours. Requisites: courses 200C, 201C. Introduction to developments in ontology of formal semantics, including plurals as formal object, events, situations, times, and degrees. Preparation: fundamental motivation for these developments, and some cross-domain parallels supporting them. S/U or letter grading.

225. Linguistic Structures. (4) Lecture, four hours. Requisites: courses 120A and 120B. 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.

C228A-C228B. Romance Syntax: French. (4–4) Lecture, four hours. Preparation: some knowledge of French (or one Romance language). Enforced requisites: course 120B. Course C228A is enforced requisite to C228B. Aspects of structure of French language, with emphasis on properties of construction not found in English. Concurrently scheduled with courses C228A, C228B. S/U or letter grading.

230. History of Linguistics. (4) Requisites: courses 200A, 200B. Aspects of history of linguistics. Different course offerings may deal with different areas of linguistics (e.g., phonology, syntax) or with different historical periods. May be repeated for credit with topic change.

232. Language Processing. (4) Lecture, four hours; laboratory, one hour. Central issues in language comprehension and production, with emphasis on how theories in linguistics inform processing models. Topics include word understanding (with emphasis on spoken language), parsing, anaphora and inference, speech error models of sentence production, and computation of syntactic structure during production. S/U or letter grading.

235. 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 theories and their impact on contemporary language development and language disorders in the mature brain. Topics include methodologies to investigate normal and atypical hemispheric specialization for language and children with acquired and/or congenital language disorders. Concurrently scheduled with course C135. Graduate students expected to read more advanced neurolinguistic literature and produce research papers of greater depth. S/U or letter grading.

236. Computational Phonology. (4) Lecture, four hours. Introduction to computational models of phonology and phonological acquisition. Topics include finite state grammars, probabilistic automata, over-constrained models, dynamic programming methods. Letter grading.

M238. Analyzing Historical Texts. (4) (Same as History M266C.) Seminar, four hours. Designed for graduate students. Analysis of linguistic structure and ethnographic and historical context of language and documentation, written by native-speaking scribes and translators. Topics include paleographic technique and text analysis software. May be repeated for credit. S/U grading.

239. Research Design and Statistical Methods. (2 or 4) Lecture, four hours. Topics include identifying and defining research questions, selecting appropriate research design and measurements, designing student experiments, recording, analyzing, and interpreting data. S/U or letter grading.

234. Bilingualism and Second 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 adult second language (L2) acquisition, with focus on understanding nature of L2 grammar and grammatical processes underlying L2/linguistic 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.

251A. Topics in Phonetics and Phonology. (4) Seminar, four hours. Requisite: course 200A. Course 201A, 203, or 204A may be required. Specialized topics in phonetics and phonology. Meets with course 251B. May be repeated for credit. Letter grading.

251B. Topics in Phonetics and Phonology. (2) Seminar, four hours. Requisite: course 200A. Course 201A, 203, or 204A may be required. Specialized topics in phonetics and phonology. May not be applied toward MA degree requirements. Meets with course 251A. May be repeated for credit. S/U grading.

252A. Topics in Language Variation. (4) Seminar, four hours. Requisite: course 110. Course 202 may be required. Specialized topics in language variation. Meets with course 253B. May be repeated for credit. Letter grading.

252B. 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 252A. May be repeated for credit. S/U grading.

254A. Topics in Linguistics. (4) Seminar, four hours. Requisites: courses 200A, 200B. Course 201A, 201B, 201C, 202, 203, 204A, 205, 208, 209A, 209B, 212, 213A, 213B, 213C, 214, or research required. Individual prosessions on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. Meets with course 254B. May be repeated for credit. Letter grading.

254B. Topics in Linguistics. (2) Seminar, four hours. Requisites: courses 200A, 200B. Course 201A, 201B, 201C, 202, 203, 204A, 205, 208, 209A, 209B, 212, 213A, 213B, 213C, 214, or research required. Individual prosessions 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. Seminars: Syntax and Semantics. (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, etc. Each course may be taken independently for credit. May not be applied toward MA degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

265A-265B-265C. American Indian Linguistics Seminar. (1 or 4 each) Seminar, two hours; fieldwork, four hours. Presentation of research on American Indian languages. Each course may be taken independently for credit. May not be applied toward MA or PhD degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

275. Linguistics Colloquium. (4) Preparation: completion of MA degree requirements. Varied linguistic topics, generally presented by new graduate students, faculty, and visiting scholars. S/U grading.

276. Linguistics Colloquium. (No credit) Designed for graduate students. Same as course 275, but taken without credit by students not presenting a colloquium. S/U grading.

411A-411B. Research Orientation. (2–2) Designed for graduate students. Sequence of lectures by department faculty to acquaint new graduate students with research directions and resources of department and elsewhere on campus. May not be applied toward MA or PhD degree requirements. S/U grading.

422. Practicum: Phonetic Data Analysis. (2) Designed for graduate students. Workshop in examination of phonetic data, such as sound spectrograms, oscillographic records, and computer output. May not be applied toward MA or PhD degree requirements. S/U grading.

444. MA Thesis Preparation Seminar. (2) 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.

495. 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 curriculum development, basic teaching strategies and their effects, teaching evaluation, and other topics on college teaching. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Course 214, 215, 216, or 218 may be required. May not be applied toward MA course requirements. May be repeated for credit. S/U grading.

596A. Directed Studies. (1 to 8) Preparation: completion of all undergraduate deficiency courses. Directed individual study or research. May not be applied toward MA course requirements. May be repeated for credit. S/U grading.

596B. Directed Linguistic Analysis. (1 to 8) Preparation: completion of MA degree requirements. Intensive work with native speakers by students individually. May be repeated for credit. S/U grading.

597. Preparation for MA Comprehensive and PhD Qualifying Examinations. (1 to 8) Preparation: at least 15 hours in courses taken to prepare for comprehensive exams. May only be taken in terms 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.


599. Research for PhD Dissertation. (1 to 16) Preparation: advancement to PhD candidacy. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

Swahili Lower-Division Courses

1. Elementary Swahili. (4) (Formerly numbered African Languages 1A.) Lecture, five hours. Major languages of East Africa, particularly Tanzania, P/NP or letter grading.

2. Elementary Swahili. (4) (Formerly numbered African Languages 1B.) Lecture, five hours. Enforced requisite: course 1. Major language of East Africa, particularly Tanzania, P/NP or letter grading.


19. First 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 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 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.


103. Advanced Swahili. (4) (Formerly numbered African Languages 103C) Lecture, four hours. Enforced prerequisite: course 102. P/NP or letter grading.

189. Directed Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or 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.

Management

John E. Anderson Graduate School of Management

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Sushil Bikhchandani, PhD
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Bruce I. Carlin, PhD
Mikhail Chernov, PhD
Bhagwan Chowdhry, PhD
Charles J. Corbett, PhD (IBM Professor of Management)
Samuel A. Cullin, PhD
Magali A. Deilmas, PhD
Aimee L. Droleto Rossi, PhD
Sebastian Edwards, PhD (Henry Ford II Professor of International Management)
Andrea L. Eisfeldt, PhD (Laurence D. and Lori W. Fink Endowed Professor of Finance)
Christopher L. Erickson, PhD
Craig F. Fox, PhD (Harold Williams Professor of Management)
Stuart A. Gabriel, PhD (Arden Realty Professor)
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Carla Hayn, PhD
John S. Hughes, PhD (Emst and Young Professor of Accounting)
Uday S. Karmarkar, PhD (Los Angeles Times Professor of Management and Policy)
Edward E. Learner, PhD (Charnoyce 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 (Allstate Professor of Insurance and Finance)
Aman Mahajan, MD, PhD, in Residence
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Kumar Rajaram, PhD (Ho-Su Wu Professor of Management)
Peter E. Rossi, PhD (James A. Collins Professor of Management)
Mariko Sakakibara, PhD
Rakesh K. Sarin, PhD (Paine Professor of Management)
Margaret J. Shih, PhD (UCLA Anderson Board of Advisors Term Professor of Management)
Sanjay Sood, PhD
Avinashor Subrahmanyam, PhD (Goldyne and Irwin Hearsh Professor of Money and Banking)
Christopher S. Tang, PhD (Edward W. Carter Professor of Business Administration)
Brett M. Trueman, PhD
John D. Villasenor, PhD
Romain T. Wacziarg, MA, PhD (Laurence D. and Lori W. Fink Endowed Professor of Finance)
Ivo L. Welch, PhD (J. Fred Weston Professor of Finance)

Professors Emeriti

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Bradford Cornell, PhD
Michael R. Darby, PhD (Waren C. Cordner Professor Emeritus of Money and Financial Markets)
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David K. Eiteman, PhD
Donald Erlenkotter, PhD
Eric G. Flamholtz, PhD
Arthur M. Geoffrion, PhD
Robert L. Geske, PhD
Glenn W. Graves, PhD

Martin Greenberger, PhD (IBM Professor Emeritus of Computers and Information Systems)
Dominique M. Hanssens, PhD (Bud Knapp Marketing Professor Emeritus)
Alfred E. Hofflander, PhD
Sanford M. Jacoby, PhD (Howard Noble Professor Emeritus of Management)
Harold H. Kassarjian, PhD
Archie Kleingartner, PhD
J. Clayburn La Force, Jr., PhD
Barbara S. Lawrence, PhD
Bennet P. Lientz, PhD
John J. McDonough, DBA
Bill W. McKeley, PhD
Bruce L. Miller, PhD
Daniel J.B. Mitchell, PhD (Ho-Su Wu Professor Emeritus of Management)
Frank G. Mittebach, MA
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William G. Ouchi, PhD (Sanford and Betty Sigoloff Professor Emeritus of Corporate Renewal)
William P. Pierskalla, PhD
Richard W. Roll, PhD (Joel Fried Professor Emeritus of Applied Finance)
Richard P. Rumelt, DBA (Harry and Elsa Kunin Professor Emeritus of Business and Society)
Hans Schollhammer, DBA
Eduardo S. Schwartz, PhD (California Professor Emeritus of Real Estate and Land Economics)
Carol A. Scott, PhD
John P. Shoffton, PhD
E. Burton Swanson, PhD
Walter N. Torous, PhD (Lee and Seymour Graff Endowed Professor Emeritus)
Bruce G. Willison, MBA

Associate Professors

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Daniel A. Saavedra, PhD
Matthew A. Schmitt, MS, PhD
Steven A. Spiller, BA, PhD
Melanie S. Wasserman, PhD
Jennifer Whitson, PhD
Undergraduate Study

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 transferable 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 statements 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 debt and equity, 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 hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

88. Lower Division Seminar: Special Topics in Management. (1 to 4) Seminar, three hours; outside study, nine hours. Requisite: satisfaction of Entry-Level Writing requirement. Variable topics seminar that examines specific issues or problems and ways that professionals in management approach study of them. Students define, prepare, and present their own research projects with guidance of professional school faculty member. Letter grading.

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


121. Ethical Leadership in Accounting. (4) Lecture, seven and one half hours. Not open to freshmen. Review of range of ethical considerations in business decisions involving individuals, corporations, society, and international business. Analysis of cases for presentation and discussion. What is ethical behavior? What is ethical behavior expected? What is range of possible decisions and boundaries of ethical choices supporting them? Offered in summer only. Letter grading.

122. Management Accounting. (4) Lecture, three hours. Requisites: course 1B, one statistics course. Nature, objectives, and procedures of cost accounting and control; job costing and process costing; accounting for manufacturing overhead; cost budgeting; cost-volume-profit analysis; contribution cost; standard costs; differential cost analysis; profit-volume relationships and break-even analysis. P/NP or letter grading.

123. Auditing. (4) Lecture, three hours. Requisite: course 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 concepts and how they apply to various entities that are subject to taxation in the United States. Emphasis on the role of tax rules in the allocation of income and the decision-making process. 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 markets (export taxes) 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 partners serving entrepreneurial clients, and fund accounting. Discussion of case study of current interest in accounting profession. Business plan preparation, P/NP or letter grading.

130A. Basic Managerial Finance. (4) Lecture, three hours. Requisites: course 1B, one statistics course. Study of financial decision making by business firms, with emphasis on applications of economic and accounting principles in financial analysis, planning, and control. Extensive use of problems and cases to illustrate analytical techniques employed in decision making. 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 models and modeling in managerial decision making, with focus on important types of models, their formulation and solution, and insight and information that may be gained from use of modeling. Enables managers to understand role of quantitative models in firms that are most often applicable in business planning and decision making. Discussion of applications in area of accounting, finance, marketing, and operations, with emphasis on model formulation, interpretation of solutions, and understanding of mathematics and computer programs related to optimization of business planning. 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 level user. Requisite: course 142A (or former 142). Not open to freshmen. Hands-on experience in accounting uses of Microsoft Excel. Topics include creating data tables in financial accounting, using multiple sheets with Excel formulas, preparing professional quality financial reports, creating graphs to interpret business results, and using Excel functions to evaluate accounting data. Exploration of utility of QuicBooks and functionality for small businesses. Offered in summer only. P/NP or letter grading.

160. Entrepreneurship and Venture Initiation. (4) Lecture, three hours; discussion, one hour. Introduc- tion to key concepts of entrepreneurship, including new product development, business plan development, and technology commercialization. Basic tools and personal characteristics required for entre- preneurship. Terminology used by lawyers, accountants, and entrepreneurs when forming and financing new companies to be developed as startups, spinouts from existing company, or acquisitions of existing company (or its assets). Assessment of feasibility, business plans, and communication of concept to potential investors, em- ployees, and business partners. Discussion of technology, feasibility, intellectual property, and licensing. Letter grading.

161. Business Plan Development. (4) Lecture, three hours. Enforced requisite: course 160. Fundamentals of developing effective business plans, both in preparation and written form. Basic principles of de- signing and articulating plans for sales, marketing, product or service, operations, financials, manage- ment, and staffing functions of new startup busi- nesses. How to develop investment-quality business plans and business plan presenta- tions, understand various analytical processes re- quired to produce such plans, improve student writing and oral presentation skills, and present their business plans to audiences of angel and venture capi- tal investors. Letter grading.

162. Entrepreneurship and Technology Commer- cialization. (4) Lecture, three hours. Designed for ju- niors/seniors. Introduction to transformation of new knowledge and inventions into viable commercial products and services, with particular emphasis on technology being developed at major research universi- ties like UCLA. Initial emphasis on identification and protection of intellectual property and early evaluation of technologies to determine potential for commer- cialization. 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 tech- nology transfer offices, researchers, technical experts, and early investors in commercialization space that might lead to patents, licenses, or new business de- velopment. Letter grading.

163. Entrepreneurship and New Product Develop- ment. (4) Lecture, six hours. Enforced requisite: course 160 for juniors/seniors. Introduction to new product innovation and management. Students assume role of product man- agers in identifying, developing, and commercializing new products through a current business news, team project, and readings to develop critical thinking, decision-making skills, and creativity in launch of successful new product (team project).

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. Rela- tionship between entrepreneurs and investors and discussion of different goals of founders and inves- tors, including nature of negotiation and relationship between parties over the life of a company. Letter grading.


167. Social Entrepreneurship. (4) Lecture, three hours. Designed for juniors/seniors. Examination of fundamental challenges and opportunities of devel- oping and managing enterprises with social missions. Use of framework to develop strategic implementa- tion plan that incorporates external analysis, organi- zational assessment, strategy development, and exe- cutable action steps and draws on expertise and ex- perience of faculty members and alumni as well as
experts in fields of social entrepreneurship, nonprofit management, and strategic philanthropy who present select topics of interest. Letter grading.

180. Special Topics in Management. (4) Lecture, four hours. Topics of special interest to undergraduate students. Open only by petition 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, homework, research, team projects, and presentations. Designed as a practicum course for students who have completed the basic microeconomics and management core curricula. Letter grading.

189. Advanced Honors Seminars. (1 Seminar) Three, tutorial. 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 as assigned 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 to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. 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. 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 24 units. Individual contract with supervising faculty member required. P/NP or letter grading.

Graduate Courses

201A. Business Forecasting: Turning Numbers into Knowledge. (4) Discussion, three hours. Preparations: familiarity with linear regression. Examination of one or more approaches to the forecasting of macroeconomic and microeconomic 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 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 intellectual property, environmental damage, trademark infringement, brand value, and consumer demand. Focus on economic thinking and problem solving using case studies as basis for lectures and homework. S/U or letter grading.


209. Managing Complex Business Deals. (4 or 6) (Formerly numbered M209.) Lecture, three hours. Preparation: familiarity with basic vocabulary and concepts, including basic principles of accounting and valuation. Advanced course in business organization and strategy. Structure of business transactions and allocation of control, risk, and return. Topics include venture capital investments, debt and loan agreements, employment agreements, distribution and marketing agreements (including franchising), motion picture production/finance/distribution agreements, and joint ventures. Assigned 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) (Formerly numbered M209A.) Lecture, three hours. Preparation: familiarity with basic vocabulary and concepts, including basic principles of accounting and valuation. Course 209A is enforced requisite to 209B. Advanced course in business organization and strategy. Examination of business transactions and allocation of control, risk, and return. Topics include venture capital investments, debt and loan agreements, employment agreements, distribution and marketing agreements (including franchising), motion picture production/finance/distribution agreements, and joint ventures. Assigned reading and focus on documents that incorporate terms of business transactions of deals. Concurrently scheduled with Law 239. In Progress (209A) and S/U or letter (209B) grading.

214. Managerial Decision Making. (4) Lecture, three hours. Introduction to principles of rational judgment and choice, common behavioral biases of managers and consumers, and corrective tools and procedures, drawing heavily on disciplines of psychology and behavioral economics. Topics include decision structuring, decision heuristics, confidence, likelihood judgment, risk perception and risk-taking, decision under uncertainty, multattribute choice, framing and mental accounting, intertemporal choice, allocation decisions, organizational decision making, choice architecture, happiness, and well-being. S/U or letter grading.

215A. Negotiations Analysis. (4) Lecture, three hours. Requisite: course 402. Managerial decision making occurs in presence of uncertainty which can be about events over which no individual has any control or it can be about what other individuals will do. Framework for structuring and analyzing such decisions, with application of framework to such scenarios as product development, litigation, business of development of students’ negotiation skills and experience. Use of economic and game-theoretic concepts in debrief to gain insight and develop framework for finding broad negotiation principles applicable. S/U or letter grading.


217A. Decision Analysis. (4) Lecture, three hours. Requisite: course 402. Managerial decision making occurs in presence of uncertainty which can be about events over which no individual has any control or it can be about what other individuals will do. Frame- work for structuring and analyzing such decisions, with application of framework to such scenarios as product development, litigation, business of development of students’ negotiation skills and experience. Use of economic and game-theoretic concepts in debrief to gain insight and develop framework for finding broad negotiation principles applicable. S/U or letter grading.


231D. Takeovers, Restructuring, and Corporate Governance. (4) Lecture, three hours. Requisites: courses 230 (or 430), 408. Process by which corporations acquire or merge with other corporations or take over control of rival corporations. Use of multiples in valuation and pricing anomalies. S/U or letter grading.

231E. Managing Finance and Financing Emerging Enterprises. (4) Lecture, three hours. Requisites: courses 230 (or 430), 408. Designed for second-year graduate students. Emphasis on financial, control, and investment issues confronting rapidly growing companies in entrepreneurial settings. Con-
232A. Investment Management. (4) Lecture, three hours. Requisites: courses 230 (or 430), 408. Topics include application of portfolio theory to investment decision analysis, and evaluation and analysis of portfolio management strategies. S/U or letter grading.


232E. Market and Credit Risk Management. (4) Lecture, three hours. Requisites: courses 408, 430. Discussion of regulatory environment for both market and credit risk management, data necessary to manage these risks, types of models used for risk management, types of securities and techniques for hedging market and credit risks, performance measurement of risk management systems, and other types of risk management, such as operation risk, liquidity risk, commodity risk, weather risk, and model risk. Letter grading.

232F. Behavioral Finance. (4) Lecture, three hours. Requisite: course 408. Introduction to and explanation of common behavioral biases and their 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 paradigms. Introduction to some psychological biases that researchers suspect are inherent to investors. Employment of some results from psychology literature to explain irrationalities encountered in finance literature. Presentation of some evidence on why individual investors trade and how individual and institutional investors form their portfolios. Letter grading.


235. Venture Capital and Private Equity. (4) Lecture, three hours. Requisites: courses 408, 430. Use of cases to study entrepreneurial finance and venture capital. Analysis of issues faced by entrepreneurs who do not have access to traditional sources of debt, such as venture capital and private equity partners, or who do not wish to pursue private equity partnership managers and investors. How transactions are structured and why investors and entrepreneurs choose certain contractual arrangements. Discussion of understanding for institutional context of private equity finance. Time also devoted to leveraged buyouts. S/U or letter grading.

238. Special Topics in Finance. (4) Lecture, three hours. Requisites: courses 230 (or 430), 408. Selected topics in finance and financial markets. Topics and selection of material will be announced before the term begins. May be repeated for credit with instructor change. S/U or letter grading.

240E. Managing Entrepreneurial Operations. (4) Lecture, three hours. Requisite: course 410. Designed for students near the end of their experience with operating issues involved in managing entrepreneurial enterprises. Integrative course, building on methodologies, principles, and concepts provided in requisite functional and strategic core courses. Use of extensive readings and case studies to develop skills and philosophical basis for applying managerial concepts to entrepreneurial operations. S/U or letter grading.

240F. Global Supply Chain Management. (4) Lecture, three hours. Requisite: course 410. Business environment of today is characterized by global operations, intense competition, rapid technological change, and short product life cycles. Consequently, firms can no longer afford to operate in isolation. In many industries, competitiveness is driven by integrated firm level to supply chain level. Provides understanding of strategic, tactical, and operational issues in supply chain management. Special attention to emerging digital economy. S/U or letter grading.


241A. Technology Management. (4) Lecture, three hours. Requisite: course 410. Management of high-technology firm, including acquisition, creation, and utilization of technology and knowledge assets. Research and product development, product and process technologies, technologies, high-technology markets, competition, and technology strategies. Case examples from sectors such as computing, telecommunication, e-business, medical devices, nanotechnology, transportation systems, and electronics. S/U or letter grading.

246A. Business and Environment. (4) Lecture, three hours. Overview of many ways in which environmental issues interact with main functional areas of business: finance, marketing, strategy, operations, accounting. Basic introduction to background of environmental issues, with focus primarily on business aspects. Specific topics vary from year to year, but course details what every manager should know about environmental issues in business. S/U or letter grading.

M247. Intellectual Property for Technology Entrepreneurs and Managers. (2) Same as Electrical and Computer Engineering M293S. Seminar, two hours; outside study, four hours. Introduction to intellectual property (IP) in context of technology products and markets. Topics include IP basics, IP strategies to put in place before product development starts, how to develop high-value patent portfolios, patent licensing, offensive and defensive IP litigation considerations, trade secrets, proper use of open source software, trademarks, managing copyright in increasingly complex content ecosystems, and adopting IP strategies to globalized marketplaces. Includes case studies inspired by complex IP questions facing technology companies today. S/U or letter grading.

250D. Patterns of Problem Solving. (4) Lecture, three hours. Acquisition of strategies that enhance adaptive planning and real-time judgment, based on findings from brain studies and cognitive research. Design of tools to respond to emergent uncertainties and to address situations where intense pressures of time and cost are present. Letter grading.

252. Persuasion and Influence. (4) Lecture, three hours. Enforced requisite: course 409. Designed for individuals interested in improving their ability to persuade and influence others. Consideration of number of well-studied influence strategies that result in greater buy-in for one’s ideas, initiatives, proposals, products, and requests. Letter grading.

254. Incentives and Motivation in Organizations. (4) Lecture, three hours. Course 254 is open to MBA, EMBA, and FEMBA students. Focus on strategic management of human resources to create value by directly motivating behavior consistent with goals and policies of firm. Motivating effects of different forms of monetary and non-monetary incentives in different types of organizations and for different types of employees and executives. Analysis of cases and interaction with human resource management and compensation practices to develop skills needed to design and implement optimal reward systems for organizations. S/U or letter grading.

256. Leadership and Ethics. (4) Lecture, three hours. Series of real-life business situations that pose complex problems of leadership and ethics, so students learn how better to address questions and can successfully address business situations that define their leadership and ethical positions. 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. Focus on how individual and determinants of consumer behavior. Emphasis on influence of sociopsychological factors such as personality, small groups, demographic variables, social class, and culture; on formation of consumer consumptions and purchasing behavior. S/U or letter grading.


264B. Data Analytics for Marketing and Finance. (4) Lecture, three hours. Enforced requisite: course 402. How to fit predictive models and visualize multivariate data using examples and topics from marketing and finance. Topics include conditional predictive and predictive models, advanced treatment of regression, visualization and graphics, automating analysis for high dimensional data. Use of industry leading R/Stastudio statistical environment. S/U or letter grading.

265. Brand Management. (4) Lecture, three hours. Requisite: course 411. Introduction to considerations in development, implementation 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, exercises, and course project. Products viewed through various lenses: quantifiable national attributes, appeal due to emotional characteristics, and cost/technology/competitive tradeoffs. NPD process also investigated through five key phases: ideation, concept development, 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 tools. Evaluation of advertising and promotional policies from development through implementation. Letter grading.

267. Digital One-to-One Marketing. (4) Lecture, three hours. Requisite: courses 402, 411. Use of notion of customer life cycle as organizing principle and application to one-to-one marketing context. Frameworks and analytical tools for interacting with customers and learning about their preferences as they evolve through four stages of customer life cycle: (1) customer awareness, (2) initial post-purchase, (3) mid-maturity purchase and transaction behavior, and (4) customer attrition or switchover to other product lines. S/U or letter grading.

268. Selected Topics in Marketing. (4) Lecture, three hours. Requisite: course 411. Study of selected areas of marketing knowledge and thought. Specific subjects vary each term depending on particular interests of instructor and students, individual projects and reports. May be repeated for credit. S/U or letter grading.


M271A. Medtech Innovation I: Entrepreneurial Opportunities and 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 medical devices 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 patient outcomes in hospital system. Introduction to intellectual property basics and various 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 of issues in entertainment, media, and sports. Topics vary. May be repeated for credit. S/U or letter grading.

275. Current Topics in Emerging Technologies and Markets. (2) Seminar, two hours. Designed for graduate students. Examination of depth of current emerging technologies and related market developments. Topics vary. May be repeated for credit. S/U or letter grading.

M277. Real Estate Finance Law. (1 to 8) Same as Law M209. Lecture, three hours. Concentrated study of law governing financing of land transactions from both national and California perspectives. Topics include California deed of trust, installment land contracts, and other mortgage-related instruments, assignments of rents, receiverships, prepayment, foreclosure, priorities, California antideficiency legislation, impact of borrower bankruptcy on mortgage lenders, construction lending, future advances lending, and secondary market. S/U or letter grading.

277A-277B. Real Estate Finance Law. (277A: 3 or 277B: 1 or 2) Formerly numbered M277A, Lecture, three hours. Course 277A, 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 mortgage-related instruments, assignments of rents, receiverships, prepayment, foreclosure, priorities, California antideficiency legislation, impact of borrower bankruptcy on mortgage lenders, construction lending, future advances lending, and secondary market. Concurrently scheduled with Law 209. In Progress (277A) and S/U or letter (277B) grading.

278A. Urban Real Estate Financing and Investing. (4) Lecture, three hours. Requisites: courses 408, 430. Investor-oriented course in which real estate and business trends are evaluated to determine alternative real estate investment opportunities. Use of current financial, economic, and investment theories and techniques to real estate investment opportunities in case studies and short case problems to illustrate development of investment strategies. S/U or letter grading.

279A. Cases in Real Estate Investments. (4) Lecture, three hours. Requisites: courses 408, 430. Development of understanding of principal issues involved with real estate investment and finance. Topics include real estate investment structure, real estate investment decision making in a 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.

279B. Entrepreneurial Real Estate Development. (4) Lecture, three hours. Requisites: courses 278A or (279A), 408, 430. Introduction to various aspects of real estate development from perspectives of entrepreneur and investor. Coverage of all types of development, including multifamily, industrial, hotel, office, retail, and industrial. Industry guest speakers to help reinforce principles taught. Real estate development simulation and group presentations to panel of investors included. Letter grading.


281B. 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.

282. Optimizing Team Performance. (4) Lecture, three hours. Enforced requisites: courses 409, 414. Optimization of team performance by exploring how complex team dynamics and taking appropriate action to improve team functioning to help students strengthen their teamwork skills in ways that are proven to increase effectiveness and performance of teams. Letter grading.

284C. Managing Entrepreneurial Organizations. (4) Lecture, three hours. Issues involved in developing and managing entrepreneurial organizations. Topics include organizational growth, 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.

285A. Leadership, Motivation, and Power. (4) Discussion, three hours. Designed for graduate students. Theoretical and practical approaches to influencing and motivating people. Relative effectiveness of various leadership styles, different motivation theories, and power tactics from managerial point of view. Use of experience-based learning methods to aid diagnosis and understanding of one’s own influence styles. S/U or letter grading.

285B. Managerial Interpersonal Communication. (4) Discussion, three hours. Designed for graduate students. Intercultural and personality factors affecting managerial communications. Styles and modes of communication in one-to-one, group, and large-systems settings. Opportunities offered to deepen understanding of one’s own communication styles and skills, considering verbal, nonverbal, perceptual, and cross-cultural aspects. S/U or letter grading.

286. Negotiations Behavior. (4) Discussion, three hours. Presentation of theoretical principles and concepts from psychology, sociology, and economics through lectures and readings, with focus primarily on improving practical negotiating skills through experiential learning (i.e., negotiations simulations). Participants learn not only to enhance their individual abilities in dyadic and group settings, but also to analyze contexts for most effective application of these skills. S/U or letter grading.

291. Strategies for Technology-Based Corporate Development. (4) Lecture, three hours. Enforced requisite: course 420. Focus on key aspects of corporate business development transactions, including strategic acquisitions and divestitures, integrated deal structure (including accounting and tax issues), and economic analysis of transactions. Examination of technology and digital media markets. Letter grading.

M292B. Growth, Science, and Technology. (4) (Same as Public Policy M280B) Lecture, three hours. Economic growth and change. Role of advances in science and technology, and actions of maximizing innovators and factors imposing on their behavior. How technological breakthroughs (or discontinuities) can form new industries or transform nature of and performance of firms in existing industries. S/U or letter grading.


M293C. Ethical Considerations in Business. (4) Lecture, three hours. Examination of a range of ethical considerations in business decisions involving the individual, corporation, society, and international business. Analysis of cases for classroom presentation and discussion. Letter grading.

294. Law and Economics Workshop. (2 or 3) Seminar, two hours. Requisite: course 405 or Economics 201A. Knowledge of empirical methods and basic
calculus required. Interdisciplinary series brings together outside speakers with scholars and students from UCLA Law School and academic departments. Topics include contracts, torts, intellectual property, and business law. Students write graded reactions. May be repeated for credit. Concurrently scheduled with Economics 206 and Law 648. S/U or letter grading.


295B. Small Business Management. (4) Exploration of crucial aspects in managing small business enterprises. Focus on identification and analysis of characteristic operating problems of small firms and application of appropriate methods or techniques for their solution. S/U or letter grading.

295C. Corporate Entrepreneurship. (4) Inquiry into nature of entrepreneurship and effective implementation of entrepreneurial strategies in large industrial enterprises. Emphasis primarily on managerial effects aimed at stimulating development and evaluation of technical and organizational innovations, management of new product or process developments, and effective new venture management in a corporate context. S/U or letter grading.


296A. International Business Management. (4) Discussion, three hours. Identification, analysis, and resolution of managerial issues of policy and action within context of a multinational corporation, with emphasis on problems of adaptation to different sociological, cultural, legal, political, and economic environmental characteristics on planning, restructuring of organizational relationships, and coordination and control in multinational firms. S/U or letter grading.

297B. International Business Strategy. (4) Discussion, three hours. Analysis of key strategic problems encountered by multinational corporations entering foreign markets. Application of concepts and theories acquired in other courses to series of complex cases on international trade or non-trade by use of a comprehensive simulation of competition in global markets. Letter grading.

297C. International Business Law. (4) Requisites: courses 205A, 298A. Legal environments in which international business activities take place; overseas business relationships and organizations; antitrust, taxation, transfer of capital, and technology regulations; patent, trademark, and copyright safeguards; arbitration of international business disputes; expansion of foreign investments; international business and government relations.

297D. 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/disolution of joint ventures, extent of foreign ownership/ management control, terms/conditions for technology transfer, investment incentives.

297E. Business and Economics in Emerging Markets. (4) Lecture, three hours. Enforced requisite: course 205A or 405. Analysis of changing economic, political, demographic, and sociocultural conditions in developing countries as they affect the business environment. Process of economic growth, market-oriented reform, 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.

298D. 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.

299E. 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.

299F. 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.

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.

299H. 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. S/U grading.

299I. 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 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.

400. Mathematics for Management. (4) Lecture, three hours. Enforced requisite: course 201A. General mathematics review for MBA students. Fundamental mathematics, including topics from algebra, differentiation 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, covariance, normal random variables), decision theory, hypothesis testing, and multiple regression models. Emphasis on actual business problems and data. Letter grading.

403. Financial Accounting. (4) Lecture, three hours. Designed for graduate students. Introduction to fundamental financial accounting methods and procedures, with emphasis on financial statements. Provides basis for understanding of "language of business." Letter grading.


408. Foundations of Finance. (4) Lecture, three hours. Introduction to managerial finance. Topics include time value of money, discounting and present value, capital budgeting, valuation of claims on the construction of optimal portfolios, capital budgeting, and weighted average cost of capital. Letter grading.


413A. Managerial Computing. (4) Lecture, three hours. Individual computing in support of strategic analysis, decision making, and management communication. Use of personal productivity tools, such as Excel and VBA, and network resources for data access. Emphasis on hands-on exercises. S/U or letter grading.

414A. Leadership Foundations. (2) Three-day residential format. Managing and working with people, with emphasis on motivation and development of individuals, leadership and interpersonal relationships, and group dynamics in complex organizational settings. S/U grading.


421A. Communication Development for Leaders. (2) Formerly numbered 421B. Lecture, three hours. Course 421A is requisite to 421B. Focus on communication basics and tailored to students’ needs—entrepreneurial, 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 for persuasive content, and effectively deliver presentations to varied audiences; how to apply visual and verbal messaging research and theory while analyzing audiences, organize and target messages for maximum persuasive impact, and communicate these messages in persuasive manner. In Progress grading (credit to be given only on completion of course 421B).

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 interviewers 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 communication. Individualized managerial communication skills form Communication Development for Leaders (course 421A), S/U or letter grading.
422. Analysis and Communications. (4) Discussion, three hours. Designed for graduate students. Study and practice of oral and written management communications, including audience analysis, persuasion, revising and editing, presentation of technical information, and uses of computer technology. Organized around writing and speaking exercises. Personal attention to students’ written communications and oral presentations.

424. Strategic Business Presenting. (2) Lecture, 90 minutes. Improvement of strategic business presenting skills such as presentation delivery techniques, visual and verbal persuasion principles, building audience with supporting evidence, and building business storytelling, and other related topics, with focus on individual student presentations. Letter grading.

425. Advanced Management Communication. (4) Lecture, three hours. Advanced focus on business presenting and management communication. Presentation of differing types of materials. 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 414B—427F.) Fieldwork, 60 hours. Requisites: courses 422, 424, 425, 429, 444A, 411, 414A, 420. Limited to Full-Employed MBA program students. Must be taken in third year. Faculty-guided consulting project with international company or U.S. company with international project focus. Establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of secondary and primary research data, development of comprehensive business plan, and formal presentation of findings and recommendations. In Progress (427A) and letter (427B) grading.

427. Global Access Program. (8) Fieldwork, 60 hours. Requisites: courses 411, 414A, 420, 427A. Limited to Full-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 Progress (427A) and letter (427B) grading.

430. Corporate Finance. (4) Lecture, three hours. Requisites: courses 340, 408, 409, 410, 411, 414A, 420. Limited to Full-Employed MBA program students. Must be taken in third year. Faculty-guided consulting project with international company or U.S. company with international project focus. Establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of secondary and primary research data, development of comprehensive business plan, and formal presentation of findings and recommendations. In Progress (427A) and letter (427B) grading.

457A. Fieldwork in Investment Management. (2) (Formerly numbered 457.) Seminar, two hours; fieldwork, one hour. Four-term course. Introduction to academic theories of portfolio management and management structure. Review of literature to identify investment strategies. Knowledge transfer and training before outgoing and incoming class leadership transition. In Progress grading (credit to be given only on completion of courses 457A, 457C, and 457D).


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 research. 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-Year Program. (4) Fieldwork, eight hours. Limited to full-time MBA program students. Must be taken after completion of first year in program. Projects include: (1) faculty-guided consulting project with private companies, nonprofit organizations, or government agencies; establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of secondary and primary research data, development of comprehensive business plan, and formal presentation of findings and recommendations; or (2) faculty-led special research project worthy of publication in recognized academic research journal. In Progress (444B) and S/U or letter (444C) grading.

445. Application of EMBA. (4) 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 relationship, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. Letter grading.

454. Fieldwork in Organizations. (4) Fieldwork, to be arranged. Preparation: completion of at least 1.5 terms of MBA program. Required of all full-time MBA students. Under direction 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 predetermined assignment(s) pursuant to defined program of study that includes reporting and assessment. Preparation of written or oral presentations and may include preparation of evaluations or consulting report correlating to defined program of study. S/U grading.

455E. International Exchange. (2 to 16) Lecture, 30 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.

457A. Fieldwork in Investment Management. (2) Formerly numbered 457.) Seminar, two hours; fieldwork, one hour. Four-term course. Introduction to academic theories of portfolio management and management structure. Review of literature to identify investment strategies. Knowledge transfer and training before outgoing and incoming class leadership transition. In Progress grading (credit to be given only on completion of courses 457A, 457C, and 457D).


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 research. 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-Year Program. (4) Fieldwork, eight hours. Limited to full-time MBA program students. Must be taken after completion of first year in program. Projects include: (1) faculty-guided consulting project with private companies, nonprofit organizations, or government agencies; establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of secondary and primary research data, development of comprehensive business plan, and formal presentation of findings and recommendations; or (2) faculty-led special research project worthy of publication in recognized academic research journal. In Progress (444B) and S/U or letter (444C) grading.

458. International Studies. (4) Lecture, three hours; presentations, site visits, and discussion, 20 hours. Preparation: full-time MBA program students. In Progress (458A) and letter (458B) grading.

459E. International Exchange. (2 to 4) Lecture, 15 hours; discussion and assignments, up to 30 hours (2 to 4 term course). Preparation: second-year-year core courses. Taught in English. Open to EMBA and FEMBA students. Topics vary but are tailored to MBA curriculum. S/U or letter grading.

460A—460B. Managing Finance and Financing Emerging Enterprises. (2—2) Lecture, three hours. Open to EMBA by faculty's decision to 460B. Designed for second-year graduate students. Focus on financial control, and investment issues confronting rapidly growing companies in entrepreneurial settings. Consideration of methods and selection of financing vehicles that may be appropriate to securing money requirements of organizations. In Progress (460A) and letter (460B) grading.

466B. Advanced Financial Policy for Managers. (4) Lecture, four hours. Limited to Executive MBA program students. Modern financial management deals with decision making under uncertainty for corporate financial management, portfolio investment decisions, financial institutions, and international financial management. Focus on learning sound theoretical tools and applying them in casework. S/U or letter grading.

468. Macroeconomics and Economic Forecasting. (4) Lecture, four hours. Limited to Executive MBA program students. Intensive one-week study at international university. Courses taught by faculty members from partner institutions. Topics vary but are tailored to MBA curriculum. S/U or letter grading.

472B. Custom 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 and allocate resources to maximize revenues and profits that result. S/U or letter grading.

479E. International Exchange: Executive MBA Program. (2 to 4) Lecture, three hours; discussion and 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. Students travel abroad for one week but are tailored to MBA curriculum, including but not limited to finance, marketing, global economics, strategy, human resources, operations, and technology management. Exposure to local business, company site visits, and exploration of local cultural and historical sites. S/U or letter grading.

481A—481B. Negotiations Behavior. (2—2) Lecture, three hours. Course 481A is enforced requisite to 481B. Limited to Global Executive MBA students. Presentation of theoretical principles and concepts
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Graduate Courses

402. Data Analysis and Management Decisions under Uncertainty. (Formerly numbered Management 463.) Lecture, four hours. Limited to Executive MBA program students. Survey of statistical model building, with emphasis on managerial interpretation of statistical summary of data. Classical statistics covered through multiple regression to support courses in finance and marketing that follow. Fundamentally approaches to decision making under uncertainty. S/U or letter grading.

403. Financial Accounting. (Formerly numbered Management 464.) Lecture, six hours. Limited to Executive MBA program students. Familiarizes the manager with functions of accounting, including use of external financial reports for evaluating corporate performance and use of accounting information for internal planning and control. S/U or letter grading.

405. Organizational Behavior. (Formerly numbered Management 465.) Lecture, three hours. Limited to Executive MBA program students. Policy-oriented problems 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 firm’s optimal response to regulation.

414. Operations and Technology Management. Systems, Strategies, and Policies. (Formerly numbered Management 474.) Lecture, three hours. Limited to Executive MBA program students. Analysis of strategic and operating policies and decisions for systems that produce goods and services. Examination of role of comprehensive planning, inventories, scheduling of resources, distribution systems, and system location. Comprehensive operating problems.

411. Marketing Strategy and Policy. (Formerly numbered Management 472A.) Lecture, four hours. Limited to Executive MBA program students. Strategic marketing decisions, including development of marketing objectives and implementation of these strategies through pricing, channel, promotion, and new product decisions. S/U or letter grading.

414A. Leadership Foundations I. (Formerly numbered Management 461A.) Lecture, two hours. Limited to Executive MBA program students. Focus on individual problem-solving and decision-making skills. Alternative conceptual frameworks presented for augmenting diagnostic and decision-making skills of individuals. Use of readings, cases, decision simulations, and discussions to explore areas of charting job and career progress, working with others, and shaping work culture. S/U or letter grading.

414B. Leadership Foundations II. (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-reflection skills. Facilitation of self-evaluation of leadership strengths and weaknesses, with emphasis on individual problem solving and decision making and team design and development. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 414C).

414C. Leadership Foundations II. (Formerly numbered Management 461C.) 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 coaching, conflict management, individual goal setting, and goal achievement. Readings, cases, decision simulations, peer coaching, and discussions. S/U grading.

414D. Leadership Foundations III. (Formerly numbered Management 461D.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 414C. Focus on self-evaluation of leadership strengths and weaknesses, with emphasis on career development, social networks, and organizational design. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 414E).

414E. Leadership Foundations III. (Formerly numbered Management 461E.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 414D. Further exploration of leadership strengths and weaknesses, with emphasis on individual leadership and organizational change. Readings, cases, decision simulations, peer coaching, and discussions. S/U grading.

420. Competitive Strategy and Business Policy. (Formerly numbered Management 476.) Limited to Executive MBA program students. Study of general management task of forging a corporate competitive strategy. Emphasis on economics of business rivalry within a variety of industrial settings and implications of managing environments on business strategy.

421. International Business Residential. (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 lecturers, 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 lecturers 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.

422. Leadership in Practice. (Formerly numbered Management 472B.) Seminar, six hours. Limited to Executive MBA program students. Addresses practical decision-making challenges leaders face when confronting decisions alone and in groups. Students learn to recognize challenges 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. (Formerly numbered Management 440.) 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. (Formerly numbered Management 441.) 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. (Formerly numbered Management 442.) 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. (Formerly numbered Management 443.) Seminar, six hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

443. Selected Topics in Management. (Formerly numbered Management 444.) 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.
Management–Global Executive MBA Asia Pacific

Graduate Courses

402. Data Analysis and Management Decisions under Uncertainty. (4) (Formerly numbered Management 483.) Lecture, four hours. Limited to UCLA-NUS Executive MBA program students. Survey of statistical model building, with emphasis on managerial interpretation of statistical summary of data. Classical statistics covered through multiple regression to support courses in finance and marketing that follow. Fundamental approaches to decision making under uncertainty. S/U or letter grading.


412. Management of Technology and Innovation. (4) (Formerly numbered Management 483.) Lecture, three hours. Problems of managing technological innovation in Asia. Topics include incorporate 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. S/U 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 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. Management Practicum. (2–2) (Formerly numbered Management 470A.) 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).

445B. Strategic Management Research. (4) (Formerly numbered Management 470B.) Fieldwork, four hours. Limited to Executive MBA program students. Preparation of specific overview of one strategic issue facing selected company and identified in course 445B. Presentation of final reports and evaluation of student efforts by corporate personnel. S/U or letter grading.

445C. Strategic Management Research. (4) (Formerly numbered Management 470C.) Fieldwork, four hours. Limited to Executive MBA program students. Further refinement of one strategic issue facing selected company and identified in course 445B. Letter grading.


402. Econometrics. (4) (Formerly numbered Management 237Q.) Lecture, six hours. Limited to Master of Financial Engineering program students. Examination of broad range of issues faced by corporate financial managers, including analysis of investment and financing decisions of firms, impact on firms of agency costs and asymmetric information, mergers and acquisitions, private equity, and risk management strategies and tools. S/U or letter grading.


404. Corporate Finance and Risk Management. (4) (Formerly numbered Management 237A.) Lecture, three hours. Limited to Master of Financial Engineering program students. Examination of broad range of issues faced by corporate financial managers, including analysis of investment and financing decisions of firms, impact on firms of agency costs and asymmetric information, mergers and acquisitions, private equity, and risk management strategies and tools. 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 trinominal option pricing, lattice algorithms, and simulation methods. Use of derivative prices and hedge ratios, simulation-based algorithms for pricing American options, and numerical solution of partial differential equations that appear in financial engineering. S/U or letter grading.

406. Derivative Markets. (4) (Formerly numbered Management 237D.) 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 trinominal option pricing, lattice algorithms, and simulation methods. Use of derivative prices and hedge ratios, simulation-based algorithms for pricing American options, and numerical solution of partial differential equations that appear in financial engineering. S/U or letter grading.

Graduate Courses

400. Fundamentals of Investments. (2) (Formerly numbered Management 237B.) Lecture, three hours. Limited to Master of Financial Engineering program students. Essentials of asset pricing and portfolio choice, fundamentals of asset pricing, such as capital asset pricing model (CAPM), arbitrage pricing theory (APT), and Fama-French Three-Factor model. Development and illustration of dynamic portfolio selection and optimization approaches. Letter grading.


402. Econometrics. (4) (Formerly numbered Management 237Q.) Lecture, six hours. Limited to Master of Financial Engineering program students. Examination of broad range of issues faced by corporate financial managers, including analysis of investment and financing decisions of firms, impact on firms of agency costs and asymmetric information, mergers and acquisitions, private equity, and risk management strategies and tools. S/U or letter grading.

403. Stochastic Calculus. (4) (Formerly numbered Management 237C.) Lecture, three hours. Limited to Master of Financial Engineering program students. Examination of broad range of issues faced by corporate financial managers, including analysis of investment and financing decisions of firms, impact on firms of agency costs and asymmetric information, mergers and acquisitions, private equity, and risk management strategies and tools. S/U or letter grading.

404. Corporate Finance and Risk Management. (4) (Formerly numbered Management 237A.) Lecture, three hours. Limited to Master of Financial Engineering program students. Examination of broad range of issues faced by corporate financial managers, including analysis of investment and financing decisions of firms, impact on firms of agency costs and asymmetric information, mergers and acquisitions, private equity, and risk management strategies and tools. 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 trinominal option pricing, lattice algorithms, and simulation methods. Use of derivative prices and hedge ratios, simulation-based algorithms for pricing American options, and numerical solution of partial differential equations that appear in financial engineering. S/U or letter grading.

406. Derivative Markets. (4) (Formerly numbered Management 237D.) 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 trinominal option pricing, lattice algorithms, and simulation methods. Use of derivative prices and hedge ratios, simulation-based algorithms for pricing American options, and numerical solution of partial differential equations that appear in financial engineering. S/U or letter grading.

410. Applied Finance Project (4) (Formerly numbered Management 237L.) 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 assignment(s) pursuant to defined program of study that may include formal coursework. May not be applied toward MFE degree requirements. S/U or letter grading.

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.

Management–Master of Science in Business Analytics

Graduate Courses


402. SQL and Basic Data Management. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Introduction to and practical application of Structured Query Language (SQL) 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 modeling and design for decision support and querying. S/U or letter grading.


406. 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 packages R. S/U or letter grading.


408. Special Topics in Data Analytics. (4) Lecture, three hours. Limited to Master of Science in Business Analytics students. How business analytics can be used to optimize internal processes and resources. Applications and cases that illustrate quantitative techniques and show how to build operational competitive edge based on business analytics. S/U or letter grading.


411. Industry Seminar II. (2) Seminar, 90 minutes to three hours. Required of Master of Science in Business Analytics students. Industry guest speaker presentations. S/U or letter grading.


Management–PhD

Graduate Courses

200. Economics of Decision. (4) (Formerly numbered Management 200A.) Discussion, three hours. Preparation: basic probability theory. Basics of single-person decision theory and 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 axioms from expected utility behavior. S/U or letter grading.


201B. Theory and Application of Regression Analysis. (4) (Formerly numbered Management 200B.) Lecture, three hours. Recommended requisite: course 201A. Designed for PhD students. Introduction to general regression analysis. Linear model, maximum likelihood and asymptotic inferences, linear combinations of coefficients, differences-in-differences, regression-discontinuity design, propensity score matching, limited dependent variable models, introduction to panel data. S/U or letter grading.


203A–203B. Research Topics in Finance. (2–1–2) (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 courses through discussion of papers during colloquium. May be repeated for credit. S/U 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. Papers presented in 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) For-merly numbered Management 258X-258Y-258Z.) Seminar, two hours. Designed for PhD students. Devel-opment of ability to critically evaluate research in fields relevant to study of problems or issues of cur-rent concern in management and organizational be-havior. 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 229A-229B-229C.) Lecture, three hours. Designed for PhD students. Re-quired of all students during first two years of their PhD work. Series consists of number of leading scholars who make presentations to marketing faculty and PhD stu-dents. Active participation and intellectual inter-change that helps students gain richer perspective on field of marketing. In Progress (207A, 207B) and S/U or letter (207C) grading.


209A-209B-209C. Management Strategy and Policy Workshops. (1–1–2) Formerly numbered Management 298X-298Y-298Z.) Lecture, three hours. De-signated for PhD students. Intended to develop ability to critically evaluate research in fields relevant to study of management strategy and policy. Papers presented in colloquium format by leading scholars in management strategy and policy. Active participation and intellectual interchange encouraged through dis-cussion 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 210C.) Lecture, three hours. Preparation: linear programming. Survey course to (1) lay foundations for more advanced study of graphs, network flow models, and integer program-ming models and their applications, (2) establish con-nexions between mathematical models of real problems drawn from many areas of manage-ment, and (3) build professional skills needed to apply these tools. S/U or letter grading.


234. Special Topics in Accounting. (4) Formerly numbered Management 229A.) Lecture, three hours. Preparation: doctoral standing or consent of in-structor. Topics may include: demography, organization, and technology; organizational and behavioral considerations; growth of advanced networks and potential for change in the future. S/U or letter grading.


241A. Models for Operations Planning, Schedul-ing, and Control. (4) Formerly numbered Manage-ment 242A.) Lecture, three hours. Designed for PhD students with some knowledge of mathematical pro-gramming and stochastic processes. Foundations of operations planning, scheduling, and control, with emphasis on formal models and their applications. Aggregate planning, work force scheduling, inventory management, and production scheduling and control. S/U or letter grading.


242. Special Topics in Decisions, Operations, and Technology Management. (4) Formerly numbered Management 245L.) Lecture, three hours. Designed for MBA and PhD students. Studies of advanced sub-jects of current interest in decisions, operations, and technology management. Emphasis on recent devel-opments and applications of specialized knowledge. Topics vary each term and have included strategy for information intensive industries, empirical research in operations management, analytical methods of oper-ation research, introduction to management in infor-mation economy, and models for medical manage-ment. May be repeated for credit with topic change. S/U or letter grading.

243. Individuals and Groups in Organizations. (4) Formerly numbered Management 259A.) Same as Psychology M222E.) Lecture, three hours. Designed for graduate students. Doctoral-level survey of classic and emerging theories and research in field of organi-sational behavior. Emphasis on application of research topics re-lated to individual and interpersonal processes within organizations. Exploration of how individual behav-iors, cognitions, and perceptions are affected by or-ganizational context, structure, and culture. S/U or letter grading.

244. Advanced Studies in Human Resource Manage-ment. (4) Formerly numbered Management 259B.) Seminar, three hours. Designed for graduate students. Doctoral-level survey of major topics in organizational behavior, with focus on micro-level and macro-level organizational topics related to study of organizational systems and organizational environ-ments. Topics may include demography, organiza-tional change, organizational structure, and networks. Letter grading.

245. Markets and Organizations. (4) Formerly num-bered Management 259C.) Seminar, three hours. Designed for graduate students. Doctoral-level survey of major topics in organizational behavior, with focus on macro-level and micro-level organizational topics related to study of organizational systems and organizational environ-ments. Topics may include demography, organiza-tional 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 management thought. Issues pertaining to general topic of marketing development and related behavior or related areas. Students are assumed to have good background in marketing principles and to be familiar with probability, statistics, mathematical program-ming, and econometrics. Review of a range of quantitative models as applied in marketing research. S/U or letter grading.

248. Quantitative Research in Marketing. (4) Formerly numbered Management 269C.) Lecture, three hours. Designed for PhD students in management and related fields. Students are assumed to have good background in marketing principles and to be familiar with probability, statistics, mathematical program-ming, 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 sur-veyed 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 thor-ough examination of one or two topics in current re-search and theory. May be repeated for credit. S/U or letter grading.

M251. Research and Development Policy. (4) Formerly numbered Management M292A.) Same as Psychology M292A.) Lecture, three hours. Examination of research and development as process and as element of goal-oriented organization. Factors affec-ting invention and innovation; transfer of technol-ogy; 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 contribu-tions of psychology, 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.
Materials Science and Engineering

Henry Samueli School of Engineering and Applied Science

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Ali Moslehi, PhD (Evelyn Knight Professor of
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Dwight G. Streit, PhD
Sarah H. Tolbert, PhD
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Associate Professors
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Adjunct Associate Professors
Eric P. Becher, PhD
Esther H. Lan, PhD
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Scope and Objectives

At the heart of materials science and engineering
is the understanding and control of the micro-
structure of solids. Microstructure is used broadly
in reference to electronic and atomic structure
of solids — and defects within them — at size scales ranging from atomic bond
lengths to airplane wings. The structure of sol-
ids over this wide range dictates their struc-
tural, electrical, biological, and chemical prop-
erties. The phenomenological and mechanistic
relationships between microstructure and the macroscopic properties of solids are,
ence, what materials science is all about.

Materials engineering builds on the foundation
of materials science and is concerned with the
design, fabrication, and optimal selection of engineering materials that must simultaneously
fulfill dimensional, property, quality control, and
economic requirements.

The undergraduate program in the Department of Materials Science and Engineering leads to
the BS degree in Materials Engineering. Stud-
ents are introduced to the basic principles of metallurgy and ceramic and polymer science
as part of the Materials Engineering major. A
joint major field, Chemistry/Materials Sci-
cence, is offered to students enrolled in the De-
partment of Chemistry and Biochemistry (Col-
lege of Letters and Science).

The department also has a program in elec-
tronic materials that provides a broad-based
background in materials science, with oppor-
tunity to specialize in the study of those materi-
als used for electronic and optoelectronic ap-
lications. The program incorporates several
courses in electrical engineering in addition to
those in the Materials Science curriculum.

The graduate program allows for specialization in one of the following fields: ceramics and ce-
ramic processing, electronic and optical mate-
rials, and structural materials.

Undergraduate Study

The materials engineering program is accred-
ited by the Engineering Accreditation Commis-
sion of ABET.

The Materials Engineering major is a desig-
nated capstone major. Students undertake two
individual projects involving materials selec-
tion, treatment, and serviceability. Successful
completion requires working knowledge of physical properties of materials and strategies
and methodologies of using materials proper-
ties in the materials selection process. Stud-
dents learn and work independently and prac-
tice leadership and teamwork in and across disciplines. They are also expected to commu-
nicate effectively 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 mi-
crostructure and properties of materials. Met-
als, ceramics, and polymers, as well as the de-
sign, fabrication, and testing of metallic and
other materials such as oxides, glasses, and
fiber-reinforced composites, are included in
the course contents.

Learning Outcomes
The Materials Engineering major has the fol-
lowing learning outcomes:
• Application of knowledge of mathematics,
natural science, and engineering to analysis
of materials and other systems
• Learn and work independently
• Practice leadership and teamwork in and
across disciplines
• Design of a system, component, or process
to meet desired needs
• Effective oral, graphic, and written communi-
cation
• Identification, formulation, and solution of
engineering problems

Materials Engineering Option

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering
M20 or Computer Science 31 or Mechanical
and Aerospace Engineering M20; Materials Science and Engineering 10, 90L; Mathemat-
ics 31A, 31B, 32A, 32B, 33A, 33B (or Mechani-
cal 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 Engineer-
ing 100, Materials Science and Engineering
104, 110L, 120, 130, 131, 131L, 132,
143A, 150, 160; one upper-division mathemat-
ics course selected from Civil and Environ-
mental Engineering 103, Electrical and Computer
Engineering 102, Mathematics 132, Mecha-
nical and Aerospace Engineering 182B, 182C;
two laboratory courses (4 units) from Materials
Science and Engineering 121L, 141L, 143L,
161L, or up to 2 units of 199; three technical
breadth courses (12 units) selected from an
approved list available in the Office of Acade-
mic and Student Affairs; one capstone de-
design course (Materials Science and Engineer-
ing 140); 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 Engineer-
ing 111, 121, 122, 151, 161, 162, Mechanical
and Aerospace Engineering 156A, 166C, plus
at least one elective course (4 units) from
Chemistry and Biochemistry 30A, 30AL, Elec-
trical and Computer Engineering 131A, Materi-
als Science and Engineering 170, 171, Mathematics 170A, or Statistics 100A.

For information on UC, school, and general education 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 Engineering 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 110, 110L, 110L, 120 (or Electrical and Computer Engineering 2), 121, 121L, 122, 130, 131, 131L, 132, Mechanical and Aerospace Engineering 101; one upper-division mathematics course selected from Civil and Environmental Engineering 103, Electrical and Computer Engineering 102, Mathematics 132, Mechanical 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 Engineering 150, 156; 4 laboratory units from Materials Science and Engineering 141L, 161L), or up to 2 units of 199; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; one capstone design course (Materials Science and Engineering 140); and one major field elective course (4 units) from Electrical and Computer Engineering 110, 131A, Materials Science and Engineering 111, 143A, or 162.

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 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. Freeman Seminar: New Materials, (1) Seminar, one hour; outside study, two hours. Preparation: high school chemistry and physics. Not open to students with credit for course 104. Introduction to basic concepts of materials science and new materials vital to advanced technology. Microstructural analysis and various material properties discussed in conjunction with such applications as biomedical sensors, pollution control, and microelectronics. Letter grading.

19. Fiat Lux Freshman Seminars, (1) Seminar, one hour; Division discussion 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. Preparation: Physics 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 microstructures) and properties of technological materials. Illustration of their fundamental differences and their applications in engineering. Letter grading.

M105. Principles of Nanoscience and Nanotechnology, (4) (Same as Engineering M101.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Chemistry 20A, 20B, Physics 1C. Introduction to underlying science encompassing structure, properties, and fabrication of technologically important nanoscale systems. New phenomena that emerge in very small systems (typically with feature sizes below few hundred nanometers) explained using basic concepts from physics and chemistry. Chemical, optical, and electronic properties, electronic transport, structural stability, self-assembly, templated assembly and applications of various nanostuctures 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. Requisite: course 104. Modern methods of materials characterization; fundamentals of crystallography, properties of X rays, X-ray scattering, powder method, Laue method; determination of crystal structures; phase diagram determination; high-resolution X-ray diffraction methods; X-ray spectroscopy; design of materials characterization procedures. Letter grading.

110L. Introduction to Materials Characterization A Laboratory, (2) Laboratory, four hours; outside study, two hours. Requisite: course 104. Experimental techniques and analysis for 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) (Formerly numbered C111.) 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, stereo- graphic projection, direct observation of defects in crystals, replicas; scanning electron microscopy; emissive and emissive scanning, electron analysis; electron optics of both instruments. Letter grading.


120. Physics of Materials, (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 104, 110 (or Chemistry 113A). Introduction to electrical, optical, and magnetic properties of solids. Free electron model, 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. Requisites: course 120. Structure and properties of elemental and compound semiconductors. Electrical and optical properties of semiconductors, defect chemistry, and doping. Elemental materials analysis and characterization, including electrical, optical, and ion-beam techniques. Heterostructures, band-gap engineering, development of electronic 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. Corequisite: course 121. Experiments conducted on materials characterization, including measurements of contact resistance, dielectric constant, 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. Requisite: course 104. Description of basic semiconductor materials for device processing: preparation and characterization of silicon, III-V compounds, and films. Discussion of principles of CVD, MOCVD, LPE, and MBE; metals and dielectrics. Letter grading.

130. Phase Relations in Solids, (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 104. Summary of thermodynamic laws, equilibrium criteria, solution thermodynamics, mass-action law, binary and ternary phase diagrams, glass transition. Letter grading.

131. Diffusion and Diffusion-Controlled Reactions, (4) Lecture, four hours; outside study, eight hours. Requisite: course 130. Diffusion in metals and ionic solids, nucleation and growth theory; precipitation from solution, eutectic 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.


140. Materials Selection and Engineering Design, (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: at least two courses from 132, 150, 160. Explicit guidance among myriad materials available for design in engineering. Properties and applications of steels, nonferrous alloys, polymeric, ceramic, and composite materials.
graduate work in engineering, technology, and materials science. The program emphasizes the use of advanced tools and techniques to address complex materials problems, with a focus on interdisciplinary collaboration.

Graduate Courses


213. Cultural Materials Science I: Analytical Imaging and Documentation in Conservation of Materials. (4) (Same as Conservation M215.) Lecture, four hours; laboratory, two hours; discussion, one hour; outside study, seven hours. Requisites: general chemistry, inorganic and organic chemistry, materials science. Characterization methods of materials characterization in conservation: optical and electron microscopy, X-ray and electron spectroscopy, X-ray diffraction, infrared spectroscopy, reflectance spectroscopy and multispectral imaging spectroscopy, chromatography, design of archaeological and ethnographic materials characterization protocols. Offered only with department consent. Letter grading.

215. Materials Science Laboratory: Technical Study. (4) (Same as Conservation M210L.) Laboratory, four hours. Requisites: courses 213 or M214, one course from Conservation M215, M216, or M212. Advanced techniques on digital photography, computer-aided recording tools, and scientific imaging to determine and document condition (defects) and technological features of archaeological and ethnographic materials. Development of basic theoretical knowledge on imaging and photonics technology and practical skills on conservation photo-documentation, analytical (fluorescent) photography, and advanced new imaging technologies. Letter grading.

216. Cultural Materials Science Laboratory: Technical Study. (4) (Same as Conservation M215.) Laboratory, four hours. Requisites: courses 213 or M214, one course from Conservation M215, M216, or M212. Advanced techniques on digital photography, computer-aided recording tools, and scientific imaging to determine and document condition (defects) and technological features of archaeological and ethnographic materials. Development of basic theoretical knowledge on imaging and photonics technology and practical skills on conservation photo-documentation, analytical (fluorescent) photography, and advanced new imaging technologies. Letter grading.
M216. Science of Conservation Materials and Methods I. (4) (Same as Conservation M216.) Lecture, two hours; laboratory, two hours. Recommended: prerequisite safety fundamentals concepts course by Office of Environmental, Health, and Safety. Introduction to physical, chemical, and mechanical properties of conservation materials (employed for preservation of archaeological and cultural materials) and their aging characteristics. Science and application methods of traditional organic and inorganic systems and introduction of novel technology based on biomineralization processes and nanostructured materials. Letter grading.

221. Science of Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended: courses 120, 130, 131, and knowledge of major physical and chemical principles affecting properties and performance of semiconductor materials. Topics include bonding, carrier statistics, band-gap engineering, optical and transport properties, and fabrication processes and nanostructured materials. Letter grading.

222. Growth and Processing of Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended: courses 120, 130, 131, and knowledge of major physical and chemical principles affecting properties and performance of semiconductor materials. Topics include bonding, carrier statistics, band-gap engineering, optical and transport properties, and fabrication processes and nanostructured materials. Letter grading.

223. Materials Science of Thin Films. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended: courses 120, 130, 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 various phase transport. Basic vacuum technology and gas kinetics. Deposition methods used in high-technology applications. Theory and experimental details of physical vapor deposition, 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: prerequisites: courses 130, 131, 200, 221, 222. Selected topics in materials science from modern Si-CMOS technology, including technological challenges in high k/metal gate stack, short-channel Si MOSFETs, three-dimensional FETs, 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; laboratory, two hours; outside study, four hours. Required: 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, four hours. Required: course 143A. Elastic and plastic behavior of crystals, geometry, 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. Required: course 160. Materials and environmental factors affecting mechanical properties of nonmetallic crystalline solids, including atomic bonding and structure, atomic-scale defects, microstructural features, residual stresses, texture, strain rate, size and surface conditions. Letter grading.


246D. Electronic and Optical Properties of Ceramics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Required: course 160. Principles governing electronic properties of ceramic single crystals and glasses and effects of processing and microstructure on these properties. Intrinsic conduction, 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. Required: course 160. Fundamental concepts of photovoltaic materials and physics of photovoltaic cell, covering basic physics of semiconductors in photovoltaic devices, physical models of cell operation, characteristics and design of common types of solar cells, and approaches to increasing solar cell efficiency. Recent progress in solar cells, such as organic solar cell, thin-film solar cells, and multiple junction solar cells provided to increase conversion efficiency. Tour of research laboratory included. Letter grading.


252. Organic Polymer Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: knowledge of introductory organic chemistry. Introduction to organic electronic materials with emphasis on materials chemistry and processing. Topics include conjugated polymers; highly doped, highly conducting polymers; applications as processable metals and in various electrical, optical, and electrochemical devices. Synthesis of semiconductor polymers for organic light-emitting diodes, solar cells, thin-film transistors. Introduction to emerging field of organic electronics. Letter grading.

261. Risk Analysis for Engineers and Scientists. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Topics include definition and fundamentals concepts of risk and risk assessment, including overview of probability and statistics, how to identify risk scenarios, techniques modeling failures of complex systems (e.g., fault tree analysis), risk identification, risk assessment, financial risk, natural hazards risk. Letter grading.

CM253. Electrochemical Processes. (4) (Same as Chemical Engineering CM214.) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended: course 130 or Mechanical and Aerospace Engineering 105A). Chemical Engineering 102B. Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes. Primarily emphasis on fundamentals of electrochemistry and analytic electrochemical processes. Specific topics include electrochemical reactions on metal and semiconductor surfaces, electrodoprocesses, electroless deposition, superhydrophobicity, fuel cells, aqueous batteries, solid-state electrochemistry. May be concurrently scheduled with course CM163. Letter grading.

270. Computer Simulations of Materials. (4) Lecture, four hours; outside study, eight hours. Introduction to modern methods of computational modeling in materials science. Topics include basic statistical mechanics, 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.

271. Electronic Structure of Materials. (4) Lecture, four hours; outside study, eight hours. Preparation: basic knowledge of quantum mechanics. Recommended requisite: course 200. Introduction to modern first-principles electronic structure calculations for various types of modern materials. Properties of electrons and interatomic bonding in molecules, crystals, and liquids, with emphasis on practical methods for solving Schrödinger equation and using it to calculate physical properties such as elastic constants, equilibrium geometry, phonon frequencies, electronic band gaps and band structures, properties of defects, surfaces, interfaces, and magnetism. Extensive hands-on experience with modern density-functional theory code. Letter grading.
272. Theory of Nanomaterials. (4) Lecture, four hours; outside study, eight hours. Strongly recommended requisite: course 200. Introduction to properties and applications of nanoscale materials with emphasis on understanding of basic principles that distinguish nanomaterials (with feature size below 100 nm) from more common microstructured materials. Explanation of new phenomena that emerge only in very small systems, using simple concepts from quantum mechanics and thermodinamics. Topics include structure and electronic properties of quantum dots, wires, nanotubes, and multilayers, self-assembly on surfaces and in liquid solutions, mechanical properties of nanostructured metamaterials, molecular electronics, spin-based electronics, and proposed realizations of quantum computing. Discussion of current and future directions of this rapidly growing field using examples from modern scientific literature. Letter grading.

CM280. Introduction to Biomaterials. (4) Same as Bioengineering CM278.) Lecture, three hours; discussion, two hours; outside study, seven hours. Required courses: 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. Discussion of current research and literature in research specialty of faculty members teaching course. 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. Reading and preparation for MS comprehensive examination. S/U grading.

297B. Material Processing in Manufacturing. (4) (Same as Mechanical and Aerospace Engineering M297B.) Lecture, four hours; outside study, eight hours. Enforced requisite: Mechanical and Aerospace Engineering 183A. Thermodynamics, principles of material processing; phase equilibria and transitions, transport mechanisms of heat and mass, nucleation and growth of microstructure. Applications in casting/solidification, welding, consolidation, chemical vapor deposition, infiltration, composites. Letter grading.

M297C. Composites Manufacturing. (4) (Same as Mechanical and Aerospace Engineering M297C.) Lecture, four hours; outside study, eight hours. Required courses: course 191, Mechanical and Aerospace Engineering 196C. 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 current curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 9) 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.

Mathematics

College of Letters and Science

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Mathematics

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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 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 capacity 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, or 31A, 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 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 and Mathematics 31A, 31B equivalency; those with a score of 4 receive 4 units of credit and Mathematics 31A equivalency. They may petition for 31A, 31B equivalency, or they may take courses 31A, 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; (2) 3B, 31B, 31E; (3) 110A, 117; (4) 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), 100B, 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 and Statistics 100A are not open for credit to students with credit for Electrical and Computer Engineering 131A.

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 3B 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 1 is designed for students who wish a broad, 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 completing 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 file 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, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, Program in Computing 10A, and two courses from Chemistry and Biochemistry 20A, 20B, Economics 11, Life Sciences 1, Philosophy 31, 132, Physics 1B, 1C, 6B, 6C. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 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 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, 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.

The Major
Required: Mathematics 110A, 110B, 115A, 120A, 131A, 131B, 132, and at least five elective courses from 106 through 199 and Statistics 100A through 102C. Each course must be taken for a letter grade. The 12 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

Applied Mathematics BS

Learning Outcomes
The Applied Mathematics major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Ability to synthesize material, solve problems, and think abstractly
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Ability to perform basic computer programming, especially in C++

Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Financial Actuarial Mathematics premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Financial Actuarial Mathematics premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A) with a minimum 2.5 grade-point average and no more than two repeats, (2) achieve grades of C or better in all premajor economics courses (Economics 1, 2, 11, Management 1A, 1B) with a minimum 2.5 grade-point average and no more than one repeat, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major
Required: Mathematics 31A, 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, 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 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.

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 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.

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++
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 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.

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

The Major
Required: Eight mathematics/statistics courses, including Mathematics 115A, 131A, 170A, 170B, 174E (or Economics 141 or Statistics C183), 175; one two-semester sequence from the following categories: life contingency actuarial models—courses 172B and 172C, or casualty loss models—courses 173A and 173B; and three courses from 172B through 173B, Economics 101 through 199B, Statistics 100C. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 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, 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 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.

Preparation for the Major
Required: Mathematics 31A, 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, 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.

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++

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 file 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 (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 file 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 se-
been approved. Students are not admitted to

At least five of the courses from the related dis-

ter in Mathematics 115A and 131A, as must

Completed with a minimum overall 2.0 grade-point

and a grade of C– or better in each course.

Repetition of more than two mathematics se-

quenced courses or of any mathematics

sequence 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 and before completing 160

quarter units.

Transfer Students

Transfer applicants to the Mathematics/Ap-

plied 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 en-

ter the major at the Student Services Office.

The Major

Required: Fourteen courses, seven in the

Mathematics Department selected from Math-

ematics 106 through 199 and seven upper-di-

vision courses in a related field selected from

one or two other departments. Each course

must be taken for a letter grade. The seven

Mathematics Department courses must be

completed with a minimum overall grade-point

average of 2.0, with grades of C– or better in

Mathematics 115A and 131A, as must the

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 de-

clared, if not earlier.

Medical and Life Sciences Plan

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B,

33A, 33B, Chemistry and Biochemistry 20A,

20B, 20L, 30A, 30AL, Life Sciences 1, 2, 3, 4,

Physics 1A, 1B, Program in Computing 10A.

Each course must be taken for a letter grade.
The mathematics sequenced courses (Math-

ematics 31A, 31B, 32A, 32B, 33A, 33B) are cal-

culated separately from the other preparation

for the major courses and must be completed

with a minimum overall 2.5 grade-point aver-

age and a grade of C or better in each course.

The other preparation courses must be com-

pleted 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 se-

quenced courses or of any mathematics sequenced course more than once results in

automatic dismissal from the major.

The Major

Required: Seven mathematics courses, includ-

ing Mathematics 115A, 131A, 134, 151A,

170A, 170B, and one course from 110A

through 199 and Statistics 106B 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 Evo-

lutionary Biology C119A, 133, C135, Physio-

logical Science 100, 135, 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 de-

clared, if not earlier.

Mathematics for Teaching BS

Capstone Major

The Mathematics for Teaching major is de-

signed primarily for students planning to teach

mathematics at the high school level. It pro-

vides exposure to a broad range of mathemati-

cal topics, especially those appropriate for the

prospective teacher. Students planning to pur-

sue graduate studies in mathematics or related

fields are encouraged to enter the Mathemat-

ics, 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 mathe-

matical thinking to design teaching to imbue

students with a problem-solving and analyti-

cal 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 class-

room 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 file 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, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Physics 1A or 5A, Program in Computing 10A, and two courses from Chemistry and Biochemistry 20A, 20B, Physics 1B, 1C, 5B, 5C, Program in Computing 10B through 97. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 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 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.

The Major

Required: Mathematics 106, 110A or 117, 115A, 120A or 123, 131A, 170A or Statistics 100A, Statistics 100B, one course from Mathematics 110B through 191H or Statistics 100C, one course from Mathematics 131B through 136, one course from 142 through 167, and a capstone series in the senior year (courses 105A, 105B, 105C). Each course must be taken for a letter grade. The 13 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C or better in Mathematics 115A and 131A.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

Honors

Honors Courses

The department offers a lower-division honors sequence in calculus and upper-division honors sequences in algebra and analysis. The sequences are intended for students (not necessarily mathematics majors) who desire a broad, comprehensive introduction to these topics.

Honors Program

Students majoring in Mathematics, Applied Mathematics, and Mathematics of Computation who wish to graduate with departmental honors should apply for admission to the honors program in the Student Services Office. They may apply any time after completing four courses from the calculus sequence or from upper-division mathematics courses with an overall grade-point average of 3.6 or better. The program entails taking a specified sequence of courses as part of the major requirements, completing an approved seminar offered by the Mathematics Department or submitting an original research project, and earning an overall GPA of at least 3.6 in approved upper-division and graduate mathematics courses.

Students completing the program are awarded honors at graduation; if they demonstrate exceptional achievement (i.e., at least a 3.8 GPA in upper-division mathematics courses taken for the major), they are awarded highest honors. Contact the department for more information.

Computing Specialization

 Majors in Mathematics, Applied Mathematics, Financial Actuarial Mathematics, Mathematics/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 106, Program in Computing 10A, one of the following two courses from 10B, 15, 16, 20A, 20B, 30, 40A, 50, 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 10B (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 mathematic 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 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 also prepares students for the contents of the California Subject Examination for Teachers (CSET). Post-bachelor credentialing programs will see that students with this minor have taken coursework on secondary mathematics from an advanced standpoint that is recommended by the Conference Board of the Mathematical Sciences and the California Commission on Teacher Credentialing. This minor is not open to students in any Mathematics Department major.
To enter the minor, students must have completed Mathematics 115A with a grade of C or better. If Mathematics 115A was not completed at UCLA, students must show proof that they completed an equivalent course with a grade of C or better.

**Required Upper-Division Courses (29 units):** Mathematics 105A, 105B, 105C, 110A or 117, 115A, 120A or 123, 131A.

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.

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 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.

**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 Masters of Arts in Teaching (MAT) degree and Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Mathematics.

**Mathematics**

**Lower-Division Courses**

1. **Precalculus.** (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics. Prerequisite: successful completion of Mathematics Diagnostic Test. Function concept. Linear and polynomial functions and their graphs, applications to optimization. Inverse, exponential, and logarithmic functions. Trigonometric functions. P/NP or letter grading.

2. **Finite Mathematics.** (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics. Finite mathematics consisting of matrices, Gaussian/Jordan method, combinatorics, probability, Bayes theorem, and Markov chains. P/NP or letter grading.

3A. **Calculus for Life Sciences Students.** (4) Lecture, three hours; discussion, one hour. Preparation: three and one half years of high school mathematics (including trigonometry). Enforced prerequisite: successful completion of Mathematics Diagnostic Test (score of 35 or better) or course 1 with grade of C– or better. Not open for credit to students with credit for course 31A. Applications of differentiation, integration, differential equations, linear models in biology, phase lines and classifying equilibrium values, bifurcations. P/NP or letter grading.

3B. **Calculus for Economics Students.** (4) Lecture, three hours; discussion, one hour. Preparation: three and one half years of high school mathematics (including trigonometry). Enforced prerequisite: course 31A with grade of C– or better. Not open for credit to students with credit for course 31B. Introduction to differential calculus of several variables, vector field theory. P/NP or letter grading.

32AH-32BH. **Calculus of Several Variables (Honors).** (4-4) Lecture, three hours; discussion, one hour. Enforced prerequisite for course 32AH: course 31A with grade of B or better; for 32BH: courses 31B and 32A, with grades of B or better. Honors sequence parallel to courses 32A, 32B. Introduction to integral calculus of several variables, line and surface integrals. P/NP or letter grading.

32C. **Calculus of Several Variables.** (4) Lecture, three hours; discussion, one hour. Enforced prerequisites: courses 31B and 32A, with grades of C– or better. Introduction to integral calculus of several variables, line and surface integrals. P/NP or letter grading.

33A. **Linear Algebra and Applications.** (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 3B or 31B or 32A with grade of C– or better. Introduction to linear algebra: systems of linear equations, matrix algebra, linear independence, subspaces, bases and dimension, orthogonality, least-squares methods, determinants, eigenvalues and eigenvectors, matrix diagonalization, and symmetric matrices. P/NP or letter grading.

33AH. **Linear Algebra and Applications (Honors).** (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 3B or 31B or 32A with grade of B or better. Honors course parallel to course 33A. P/NP or letter grading.

33B. **Differential Equations.** (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 31B with grade of C– or better. Highly recommended: course 33C. First-order, linear differential equations; second-order, linear differential equations with constant coefficients; power series solutions; linear systems. P/NP or letter grading.

33BX. **Workshop in Infinite Series and Differential Equations.** (1) Discussion, one hour. Corequisite: course 33B. Supplementary techniques and applications for solving problems in infinite series and differential equations. Limits of investigation set by individual instructor. P/NP grading.

61. **Introduction to Discrete Structures.** (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B. Not open for credit to students with credit for course 180 or 184. Discrete structures commonly used in computer science and mathematics, including sets and relations, permutations and combinations, graphs and trees, induction. P/NP or letter grading.

71SL. **Classroom Practices in Elementary School Mathematics.** (2) Seminar, three hours; fieldwork, three hours. Introduction for prospective mathematics teachers to field of elementary mathematics and teaching and learning of mathematics in elementary school classrooms. Pairs of students are placed in local elementary school classrooms to observe, participate, and assist mentor teachers in instruction. Discussion of learning 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.

72SL. **Classroom Practices in Middle School Mathematics.** (2) Seminar, 90 minutes; fieldwork, two and one half hours. Requisites: courses 31A and 31B, with grades of C– or better. Introduction for prospective 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.

69. **Honors Seminars.** (1) Seminar, three hours. Limited to 20 students. Designed to expose 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 requirements for eligible students. Honors content noted on transcript. P/NP or letter grading.
Upper-Division Courses

General and Teacher Training

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 mathematical competitions. Enrollment based on one selection test or past Putnam results. Advanced problem solving techniques and mathematical topics useful as preparation for Putnam Competition. Problems in abstract algebra, linear algebra, number theory, combinatorics, probability, real and complex analysis, differential equations, Fourier analysis. Regular practice tests given, similar in difficulty to Putnam Competition. May be repeated for maximum of 12 units. P/NP 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, 33A, 33B. Course 103A is enforced requisite to 103B, which is enforced requisite to 103C. Observation, participation, or tutoring in mathematics classes at middle school and secondary levels. May be repeated for credit. P/NP (undergraduates) or S/U (graduates) grading.

105A. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 30 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 geometric, rational, and transcendental functions and related equations in secondary school; professional standards and current research for teaching secondary school mathematics. Letter grading.

105B. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 30 minutes. Requisites: courses 105A, 110A (or 117), 120A (or 123), and 131A, with grades of C– or better. Mathematical knowledge and research-based pedagogy needed for teaching key analysis, probability, and statistics topics 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 117. Ring of integers, integral domains, principal ideal domains, unique factorization. 110B. Requisite: course 110A or 117. Groups, structure of finite groups.

110AH-110B. Algebra (Honors). (4–4) Lecture, three hours; discussion, one hour. Honors sequence parallel to courses 110A, 110B.

110C. Algebra. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A, 110B. Field extensions, Galois theory, applications to geometric constructions, and solvability by radicals.

111. Theory of Numbers. (4) Lecture, three hours; discussion, one hour. Requisite: courses 110A. 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. P/NP or letter grading.

114C. Computability Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 110A or 131A or Philosophy 135. Effective calculability, Turing computable, and recursive functions; Church/Turing thesis. Normal form theorems; universal functions; 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, aiming primarily at completeness and incompleteness theorems of Gödel. Propositional and predicate logic; syntax and semantics; formal deduction; completeness, compactness, and Lowenheim/Skolem theorems. Formal number theory; nonstandard models. Gödel incompleteness theorem. P/NP or letter grading.

M114S. Introduction to Set Theory. (4) (Same as Philosophy M134) Lecture, three hours; discussion, one hour. Requisite: courses 130A 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 grading.

115A-115B. Linear Algebra. (4–4) P/NP or letter grading. 115A. Lecture, three hours; discussion, two hours. Requisite: course 33A. Techniques of proof, abstract vector spaces, linear transformations, and matrices; determinants; inner product spaces; eigenvector 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). (4) 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 per week. Honors course 115AX: course 115A; course 115BX: course 115B. Supplementary techniques and applications for solving problems in linear algebra. Limits of investigation set by individual instructor. P/NP grading.

115HX. Workshop in Linear Algebra (Honors). (1) Discussion, one hour. Requisite: course 115AH. 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 Pro- gram in Computing 130. Introduction to mathematical cryptology using methods of number theory, algebra, probability. Topics include symmetric and public-key cryptosystems, one-way functions, signatures, key exchange, groups, primes, pseudoprimes, primality testing, quadratic reciprocity, factoring, rho method, RSA, discrete logs. P/NP or letter grading.

117. Algebra for Applications. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Not open for credit to students with credit for course 117. Integers, congruences; fields, applications of finite fields, polynomials; permutations, introduction to groups.

Geometry and Topology

120A-120B. Differential Geometry. (4–4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A, 131A. Course 120A is requisite 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 and non-Euclidean axioms, neutral (absolute) geometry, hyperbolic geometry, Poincaré model, independence of parallel postulate.

Analysis

131A-131B. Analysis. (4–4) Lecture, three hours; discussion, one hour. P/NP or letter grading. 131A. Requisites: courses 32B, 33B. Recommended: course 115A. Rigorous introduction to foundations of real analysis; real numbers, point set topology in Eu-


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 models to use for collected information, such as past loss information, to predict future outcomes. Use of simulation to model future events. Letter grading.

174E. Mathematics of Finance for Mathematics/Economics Students. (4) Lecture, four hours; discussion, one hour. Enforced requisites: courses 33A, 170A (or Statistics 100A), Economics 11. Not open for credit to students for course 174A, 180A, 181 or 184. Designed for economics students. Credit cannot be applied toward upper-division mathematics degree requirements. May not be applied toward MA degree requirements.

175. Introduction to Financial Mathematics. (4) (Formerly numbered 172A.) Lecture, four hours; discussion, one hour. Enforced requisites: courses 23B, 33B. Designed to prepare students for Society of Actuaries Financial Mathematics examination. Provides understanding of fundamental concepts of financial mathematics and how those 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, and 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, portfolios and general cash flows, rate of return, term structure of interest rates, duration, convexity and immunization, introduction to capital markets, financial derivatives, forward, futures, and options. Letter grading.


182. Algorithms. (4) Lecture, three hours; discussion, one hour. Requisite: course 3C or 32A. Not open for credit to students for course 182. Efficient computation for Computer Science. Graphs, greedy algorithms, divide and conquer algorithms, dynamic programming, network flow. Emphasis on designing efficient algorithms useful in diverse areas such as bioinformatics and allocation of resources. P/NP or letter grading.


Special Studies

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 student 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-190D. Seminars. (1) Each Seminar, one hour. Designed for undergraduate students. Reading of and discussions of papers in mathematics literature under supervision of staff member. One-hour presentation required. P/NP grading.

190A. Current Literature. (1 each) Seminar, one hour. Designed for undergraduate students. Reading of and discussions of papers in mathematics literature under supervision of staff member. One-hour presentation required. P/NP grading.

191H. Honors Research Seminars: Mathematics. (4) Seminar, three hours. Participation seminar on advanced topics in mathematics. Content varies from year to year. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

195. Community Internships in Mathematics Education. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship to be supervised by Center for Community Learning and Mathematics Department. Students must complete one credit hour; instructor(s) provide periodic reports of their experience. Have assigned readings on mathematics education, and complete final paper. May not be repeated and may not be applied toward major requirements. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Mathematics. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. At discretion of chair and subject to availability of staff, individual intensive study of topics suitable for undergraduate course credit but not specifically offered as separate courses. 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 12 units, but no more than one 197 or 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) Lecture, three hours. Senior thesis or research. At discretion of chair and subject to availability of staff, individual intensive study of topics suitable for undergraduate course credit but not specifically offered as separate courses. Scheduled meetings to be arranged between faculty member and student. Culuminating report required. May be repeated for maximum of 12 units, but no more than one 197 or 199 course may be applied toward upper-division courses required for majors offered by Mathematics Department. Individual contract required. P/NP or letter grading.

Graduate Courses

Teacher Preparation

201A-201B-201C. Topics in Algebra and Analysis. (4–4–4) Lecture, four hours; discussion, one hour. Enforced requisites: courses 210A, 248A. Advanced topics such as biometrics and allocation of resources. P/NP or letter grading.

202A. Mathematics Models and Applications. (4) Preparation: bachelor’s degree in mathematics. Designed for mathematics/education program students. Important ideas of algebra, geometry, and calculus leading effectively from elementary to modern mathematics. Approaches to number system, point sets, geometric interpretations of algebraic structures, number-theoretic, series and analytic functions. May not be applied toward MA degree requirements.

M203. Combinatorial Protocols. (4) (Same as Computer Science M283A-M283B.) Lecture, four hours. Requisite: course M203A. Consideration of advanced cryptographic protocol design. Topics include noninteractive zero-knowledge proofs; zero-knowledge arguments; concurrent and non-black-box zero-knowledge; IP=PSpace proof, stronger notions of security for public-key encryption, including chosen-ciphertext secure; secure multiparty computation; dealing with dynamic adversary; nonmeasurability and composability of secure protocols; software projects and threshold cryptography; zero-knowledge proofs; private information retrieval; protection against man-in-the-middle attacks; voting protocols; identification protocols; digital cash schemes; lower structure of theorems. Modern topics such as operations research, linear programming, game theory, learning models, models in social and life sciences. May not be applied toward MA degree requirements.

Number Theory


209A. Cryptography. (4) (Same as Computer Science M289A.) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, stressing rigorous definitions and proofs of security. 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, secret-sharing, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, key-agreement, contract signing, and two-party secure computation with static security. Letter grading.

M209B. Cryptographic Protocols. (4) (Same as Computer Science M289B.) Lecture, four hours. Requisite: course M209A. Consideration of advanced cryptographic protocol design. Topics include noninteractive zero-knowledge proofs; zero-knowledge arguments; concurrent and non-black-box zero-knowledge; IP=PSpace proof, stronger notions of security for public-key encryption, including chosen-ciphertext secure; secure multiparty computation; dealing with dynamic adversary; nonmeasurability and composability of secure protocols; software projects and threshold cryptography; zero-knowledge proofs; private information retrieval; protection against man-in-the-middle attacks; voting protocols; identification protocols; digital cash schemes; lower
Algebra

210A-210B-210C. Algebra. [4–4–4] Requisites: courses 110A and 110B. Subject to minimum credit for courses 110B and/or 110C, cannot receive MA degree credit for courses 210B and/or 210C. Group theory, including theorems of Sylow and Jordan/Holden/Schreier; representation theory of integral domains, modules over principal ideal rings, Galois theory of fields, multilinear algebra, structure of algebras.


212B. Homological Algebra. [4] Lecture, three hours. Requisites: courses 210A, 210B, 210C, 212A. Advanced topics in homological algebra, such as triangulated categories, differential graded algebras as dg-categories, tilting theory and applications of group cohomology to representation theory, stable homotopy theory and derived representation theory, and other current topics. S/U or letter grading.

213A-213B. Theory of Groups. [4–4] Requisite: course 210A. Topics include representation theory, transfer theory, infinite Abelian groups, free products and presentations of groups, solvable and nilpotent groups, classical groups, algebraic groups.

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 schemes, as time permits.


216A-216B-216C. Further Topics in Algebra. [4–4–4] Lecture, three hours. Requisites: courses 210A, 210B, 210C. Closer examination of areas of current research in algebra, including algebraic geometry and K-theory. Variable 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. S/U or letter grading.

217. Geometry and Physics. [4–4] (Same as Physics M236.) Lecture, three hours. Interdisciplinary course on topics at interface between physics and 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.


218C. Topics in Discrete Mathematics. [4] Lecture, three hours. Examination of variety of methods, approaches, and techniques that were developed in last 30 years in discrete mathematics. Topics may include extremal problems for graphs and set systems, Ramsey theory, additive number theory combinatorial geometry, topological methods in combinatorics, entropy and other tools from information theory, discrete harmonic analysis and its applications to combinatorics and theoretical computer science. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

220A-220B-220C. Mathematical Logic. [4–4–4] Lecture, three hours. Requisite: course M114S. Fundamental methods and results in mathematical logic, using modern methods to reason about existence or nonexistence of proofs and computations 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. Requisite: course 210C. 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.


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 convergence theorems for Riemannian manifolds, almost flat manifolds, closed geodesics, manifolds of positive scalar curvature, manifolds of constant curvature. Topics vary from year to year. May be repeated for credit by petition.

235. Topics in Manifold Theory. [4] Lecture, three hours. Requisites: courses 225A, 225B. Emphasis on low-dimensional manifolds. Structure and classification of manifolds, automorphisms of manifolds, submanifolds (e.g., knots and links). Topics vary from year to year. May be repeated for credit by petition.


238A-238B. Dynamical Systems. [4–4] Lecture, three hours. Recommended preparation: first-year analysis courses. Topics include qualitative theory of differential equations, bifurcation theory, and Hamiltonian systems; differential dynamics, including hyperbolic theory and quasiperiodic dynamics; ergodic theory; low-dimensional dynamics. S/U or letter grading.
Analysis and Differential Equations


Applied Mathematics


250C. Advanced Topics in Ordinary Differential Equations. (4) Requisites: courses 250A, 250B. Selected topics, such as spectral theory or ordinary differential operators, nonlinear boundary value problems, celestial mechanics, approximation of solutions, and Volterra equations.


251B-251C. Topics in Partial Differential Equations. (4–4) In-depth introduction to topics of current interest in partial differential equations or their applications.


253A-253B. Several Complex Variables. (4–4) Requisites: courses 245C, 246A, 246B, 246C. Introduction to analytic functions of several complex variables. The d-bar problem, Cousin problems, domains of holomorphy, complex manifolds.


270D-270E. Computational Fluid Dynamics. (4–4) Lecture, three hours. Requisites: courses 115A, 151A, 151B. Program in Computing 10A. Mathematical modeling for computer applications, scientific programming languages, software development, graphics, implementation of numerical algorithms on different architectures, case studies. S/U or letter grading.


271A. Tensor Analysis. (4) Requisite: course 131A. Algebra and calculus of tensors on n-dimensional manifolds. Curvilinear coordinates and coordinate-free methods. Covariant differentiation. Green/Stokes theorems for differential forms, Applications to topics such as continuum and particle mechanics.


Probability and Statistics

275A-275B. Probability Theory. (4-4) Lecture, three hours; discussion, one hour. Connection between probability theory and real analysis. Weak and strong laws of large numbers, central limit theorem, conditioning, ergodic theory, martingale theory. S/U or letter grading.


275E. Stochastic Particle Systems. (4) Lecture, three hours. Requisite: course 275C. Interacting par- ticle systems, including contact process, stochastic ising model, and exclusion processes; percolation theory. S/U or letter grading.

276. Topics in Network Science. (4) Lecture, three hours. Requisites: courses 115A, 170A. Interesting and popular areas of network science. Topics vary from year to year and may include dynamical pro- cesses on networks, mesoscale structures in net- works, time-dependent networks, multi-layer net- works, applications of networks, data analysis in net- works, spatial networks, and others. Discussion of recent review articles and research papers. Some pre- sentations by students. Joint project on topic in net- work science possibly leading to publication. S/U or letter grading.

Special Studies


370A-370B. Teaching of Mathematics. (4-4) Lecture, three hours; discussion, one hour. Requisite: course 33B. Limited to senior Mathematics Depart- ment majors. Course 370A is requisite to 370B. Topics in geometry, algebra, number theory, discrete mathematics, and calculus, presented from a problem-solving and student participation point of view, with emphasis on historical context and appro- priate role of proof. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Sem- inar, 10 to 40 hours. Preparation and experience in classroom teaching; assistant, associate, or fellow. Teaching apprenticeship under active guid- ance and supervision of regular faculty member re- sponsible for supervision and instruction at UCLA. May be repeated for credit. S/U grading.

495B. Technology and Teaching. (2 to 4) Seminar, two hours; laboratory, one hour (when scheduled). Requisite: course 495. Focus on undergraduate mathematics instruction. Web-based electronic com- munication; use of presentation software packages, and creation of electronic teaching portfolio. Provides mechanics of technology and forum for evaluation and compar- ison of technology in undergraduate mathematics teaching, S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA department chair and graduate dean; 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) Tutor to be arranged. Individual reading and study on project approved by a faculty member, which may be preparation for MA examina- tion. May be repeated for credit, but only two 596 courses (8 units) may be applied toward MA degree unless departmental consent is obtained. S/U or letter grading.

599. Research in Mathematics. (2 to 12) Tutorial, to be arranged. Preparation: advancement to PhD can- didacy. Study and research for PhD dissertation. May be repeated for credit. S/U grading.

Program in Computing

Lower-Division Courses

1. Introduction to Computers and Computing. (4) Lecture, three hours; laboratory, one hour. Not open for credit to students with credit for course 15 or 10A; fundamentals of computers and computing; editors, spreadsheets, file manager; machine organization and computer hardware; Internet; software applications. P/NP or letter grading.

1S. Software Tools for Information Management. (4) Lecture, one hour; laboratory, two hours. Preparation: some familiarity with computers. Not open for credit to students with credit for course 1; may not be taken concurrently with course 1. Laboratory, S/U grading.

3. Introduction to Computing for Social Sciences and Humanities. (4) Lecture, three hours; discussion, two hours. No prior computer knowledge re- quired. Not open for credit to students pursuing spe- cializations in Computing or to students with credit for course 20A. Basic principles of object-oriented pro- gramming and concepts, with applications from so- cial sciences and humanities. Overview of Java pro- gramming language, graphics, sound, control structures, and popular areas of network science. Topics vary from year to year and may include dynamical pro- cesses on networks, mesoscale structures in net- works.
Mathematics/Economics

10C. Advanced Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisites: course 10B, More advanced algorithms and data structuring techniques; additional emphasis on algorithmic efficiency; advanced features of C++, such as inheritance and virtual functions; graph algorithms. P/NP or letter grading.

15. Introduction to Lisp and Symbolic Computation. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 10A. Introduction to symbolic computation using Lisp programming language. Basics; list structures, recursion, function abstraction. Advanced topics: knowledge representation, higher-order functions, problem-solving algorithms and heuristics. P/NP or letter grading.

16. Python with Applications. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisites: course 10A, and 20A, 40A, or Computer Science 31, or Computer Science 31J, and 32 or course 10B, each with C– or better. Python programming and programming with Python packages. General Python programming constructs; standard data structures, flow control, exception handling, and input and output. Programming with Python. Application programming with commonly used Python modules such as PyQt or tkinter, NumPy, SciPy, and NLTK, as well as 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.

20A. Principles of Java Language with Applications. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10A or Computer Science 31. Not open for credit to students with credit for course 3. Introduction to Java computer language. Class and interface hierarchies; graphics components and graphical user interfaces; streams; multithreading; event and exception handling. Issues in class design and design of interactive web pages. P/NP or letter grading.

20B. Advanced Aspects of Java Language with Applications. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 20A. Language concepts. Use of object-oriented classes; graphics components, exception handling, multithreading, and multimedia. Additional topics may include networking, servlets, database connectivity, and JavaBeans. P/NP or letter grading.

20C. Seminar: Enterprise Computing with Java. (5) Lecture, three hours; discussion, two hours; laboratory, five hours. Enforced requisite: course 20B. Overview of Enterprise Java APIs: remote method invocation, database access with SQL, servlets, and JSP. Issues in implementation of server-side Java applications. Use of Java in conjunction with XML. Individual or group projects and presentations. P/NP or letter grading.

30. Machine Organization and Assembly Language Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 10B. Description of machine organization and operation. Representation of information, instruction sets and formats, addressing modes, memory organization and management, input/output (I/O) processing and interrupts. P/NP or letter grading.

40A. Introduction to Programming for Internet. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10A or Computer Science 31. Recommended: course 10B. Introduction to core technologies of Internet, with focus on client-side web programming. Fundamental protocols, static web pages, Perl language, Common Gateway Interface, XML, P/NP or letter grading.

40B. Advanced Topics in Programming for Internet. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 40A. Study of advanced topics in Web programming, with focus on server-side technologies. P/NP or letter grading.


89. Honors Seminars. (1 Seminar, 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. In individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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 of parallel computers. 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.

130. Cryptography. (4) Lecture, three hours; discussion, one hour; laboratory, three hours. Requisites: course 10B, Mathematics 115A. Design and analysis of cryptosystems for confidentiality and authentication. Classical cryptosystems and their security, modern private-key cryptosystems and applications, public-key cryptography and applications; generating prime numbers, factoring integers, discrete logarithms, digital signatures, perfect secrecy. 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


296. Participating Seminar: Logic and Theory of Computation. (1 to 4) Seminar, to be arranged. Selection based on student and staff members. 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.

Mathematics/Economics

Interdepartmental Program
College of Letters and Science

6363 Mathematical Sciences
Box 951555
Los Angeles, CA 90095-1555

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, Co-Chair (Economics)
Georg Menz, PhD (Mathematics)
Ichiro Obara, PhD (Economics)
Peter Petersen, PhD (Mathematics)
Marek G. Pycia, PhD (Economics)
John G. Riley, PhD (Economics)

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 file a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics/Economics premajors until they satisfy the following minimum requirements for the major:

1. Complete all the preparation for the major courses, including Mathematics 115A, 131A, 131B, 164, 170A, 170B, 174E (or Economics 141 or Statistics C183), and one elective course from Mathematics 135, 136, or 171; five economics courses, including Economics 101, 102, 103 (with 103L), and two additional courses from 106E through 199B. Each course must be taken for a letter grade. Transfer credit is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

To graduate, the eight Mathematics Department courses must be completed with an overall grade-point average of 2.0, with grades of C or better in Mathematics 115A and 131A, as must the five courses from the Economics Department, with grades of C or better in Economics 101 and 102.

Mathematics 115A is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

**Honors Program**

Students who wish to graduate with departmental honors should apply for admission to the honors program in the Mathematics Department Student Services Office. They may apply any time after completing the preparation for the major courses and meeting the following requirements:

1. Be officially enrolled in the Mathematics/Economics major, (2) complete all the preparation for the major courses, (3) achieve a minimum 3.5 grade-point average in the mathematics preparation for the major courses, (4) achieve a minimum 3.5 grade-point average in the economics preparation for the major courses, and (5) achieve a minimum 3.5 grade-point average in Economics 11, 101, and 102.

To qualify for honors at graduation, students must:

1. Complete Mathematics 115AH, 131AH, and 131BH, (2) complete Economics 198A and 198B (the thesis process requires enrollment in a two-term sequence for economics courses), (3) present the thesis in Economics 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**

Henry Samueli School of Engineering and Applied Science

48-121 Engineering IV
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Los Angeles, CA 90095-1597

Mechanical and Aerospace Engineering 310-825-7793
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**Professors**

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Rajit Gadhe, PhD
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James S. Gibson, PhD
Vijay Gupta, PhD
Dennis W. Hong, PhD
Tetsuya Iwasaki, PhD
Y. Sungtaek Ju, PhD
Ann R. Karagiozian, 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 Liou, PhD
Ajit K. Mal, PhD
Robert T. McClaskey, PhD
Ali Mosleh, PhD, NAE (Evalyn Knight Professor of Engineering)
Jayathi Y. Murthy, PhD, Dean
Laurent G. Pilote, PhD
Jacob Rosen, PhD

**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.

**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 135, 136, or 171; five economics courses, including Economics 101, 102, 103 (with 103L), and two additional courses from 106E through 199B. 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.
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. Mechanical Engineering students work in teams in their capstone courses to propose, design, analyze, and build a mechanical or electromechanical device. Graduates of both programs should be able to apply their knowledge of mathematics, science, and engineering in technical systems; design a system, component, or process to meet desired needs; function as productive members of a team; identify, formulate, and solve engineering problems; and communicate effectively, both orally and in writing.

Aerospace Engineering BS

Capstone Major

The Aerospace Engineering program is concerned with the design and construction of various types of fixed-wing and rotary-wing (helicopters) aircraft used for air transportation and national defense. It is also concerned with the design and construction of spacecraft, the exploration and utilization of space, and related technological fields.

Aerospace engineering is characterized by a very high level of technology. The aerospace engineer is likely to operate at the forefront of scientific discoveries, often stimulating these discoveries and providing the inspiration for the creation of new scientific concepts. Meeting these demands requires the imaginative use of many disciplines, including fluid mechanics and aerodynamics, structural mechanics, materials and aeroelasticity, dynamics, control and guidance, propulsion, and energy conversion.

Learning Outcomes

The Aerospace Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, science, and engineering
- Function as a productive member of a team that considers multiple aspects of an engineering problem
- Design of a system, component, or process to meet desired needs
- Effective oral and written communication
- Identification, formulation, and solution of engineering problems

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A; Mechanical and Aerospace Engineering M20 (or Computer Science 31), 82; Physics 1A, 1B, 1C, 4AL, 4BL.
Mechanical and Aerospace Engineering

The Major

Required: Electrical and Computer Engineering 113L, Mechanical and Aerospace Engineering 101, 102, 103, 105A, 105D, 107, 131A or 133A, 156A, 157, 162A, 171A, 183A (or M185B), 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, C137, CM140, CM141, 150A, 150B, 150C, C150G, C150P, C150R, 153A, 154S, 155, 155B, 157A, 161A through 161D, 166C, 169A, 171B, 172, 174, C175A, 181A, 182B, 182C, 183A (unless taken as a required course), M183B (unless taken as a required course), C183C, 184, 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. 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. Nuclear Power Plants. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 105A. Applications of thermodynamic principles to nuclear energy conversion systems. Energy conversion systems. Rankine cycle and other cycles, refrigeration, psychrometry, reactive and non-reactive fluid flow systems. Elements of thermodynamic design. Letter grading.

4. Fundamentals of Nuclear Science and Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 105A. Global energy use and supply, electrical power generation, fossil fuel and nuclear power plants, renewable energy such as hydropower, biomass, geothermal, solar, wind, and ocean; fuel cells, transportation, energy conservation, air and water pollution, global warming. Letter grading.

C17. 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 metering infrastructure; integration; solar and wind generation intermittency and correction; microgrids; grid stability; energy storage and electric vehicles-simulation; monitoring and three-dimensional imaging; 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 C237. 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 mechanical functions of human body; skeletal adaptations to optimize load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics applications. Power transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM240. Letter grading.

CM141. Mechanics of Cells. (4) (Same as Bioengineering CM141.) Lecture, four hours. Introduction to physical structures of cell biology and physical principles that govern how they function mechanically. Review and application of continuum mechanics and statistical mechanics to develop quantitative mathematical structural mechanics in cells. Structure of macromolecules, polymers as entropic statistical mechanics to develop quantitative mathematical models of the cell. Letter grading.

15A. Preliminary Design of Aircraft. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 154S. Classical preliminary design of aircraft, including weight estimation, performance and stability, and control consideration. Term project consists of preliminary design of a low-speed aircraft. Letter grading.


15S. Flight Mechanics, Stability, and Control of Aircraft. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 150A, 150B. Aircraft performance, flight mechanics, stability, and control; some basic ingredients needed for design of aircraft. Effects of airplane flexibility on stability derivatives. Letter grading.

155. Intermediate Fluid Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 102. Axioms of Newtonian mechanics, generalized coordinates, Lagrange equation, variational principles; conservation laws; symmetries and advanced dynamic of rigid bodies. Euler equations, 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. Requisites: courses 102, 101. Not open to students with credit for course 166A. Concepts of stress, strain, and material behavior. Stresses in loaded bodies; symmetry; stress analysis. Design of axially symmetrical structures. Stability, design of cylindrical and thin-walled structures, shear flow. Stresses in pressure vessels, press-fit and shrink-fit problems, rotating shafts. Contact stresses. Strength and failure, plastic deformation, fatigue, elastic instability. Letter grading.

156B. Mechanical Design for Power Transmis- sions. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A or 166A. Material selection, mechanical and stress analysis. Deflection and stiffness. Failure due to static loading. Fatigue failure. Design for safety factors and reliability. Applications of failure prevention in design of power transmission components. Design project involving computer-aided design (CAD) and finite element analysis (FEA) modeling. Concurrently scheduled with course C296A. Letter grading.

157. Basic Mechanical and Aerospace Engineering Laboratory. (4) Laboratory, four hours; outside study, four hours. Requisites: courses 101, 102, 103, 105A. Electrical Engineering 100. Methods of measurement and performance of basic experiments in fluid mechanics, structures, and thermodynamics. Primary sensors, transducers, recording equipment, signal processing, and data analysis.

157A. Aerospace Design Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: 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. Requisites: courses 102, 103. 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.

153A. Engineering Acoustics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for junior/senior engineering majors.

Fundamental course in acoustics; propagation of sound; sources of sound. Design of field measurements. Estimation of jet and blade noise with design aspects. Letter grading.

154A. Preliminary Design of Aircraft. (4) Lecture, four hours; discussion, two hours; outside study, seven hours. Enforced requisite: course 154S. Classical preliminary design of aircraft, including weight estimation, performance and stability, and control consideration. Term project consists of preliminary design of a low-speed aircraft. Letter grading.


154S. Flight Mechanics, Stability, and Control of Aircraft. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 150A, 150B. Aircraft performance, flight mechanics, stability, and control; some basic ingredients needed for design of aircraft. Effects of airplane flexibility on stability derivatives. Letter grading.

155. Intermediate Fluid Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 102. Axioms of Newtonian mechanics, generalized coordinates, Lagrange equation, variational principles; conservation laws; symmetries and advanced dynamic of rigid bodies. Euler equations, 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. Requisites: courses 102, 101. Not open to students with credit for course 166A. Concepts of stress, strain, and material behavior. Stresses in loaded bodies; symmetry; stress analysis. Design of axially symmetrical structures. Stability, design of cylindrical and thin-walled structures, shear flow. Stresses in pressure vessels, press-fit and shrink-fit problems, rotating shafts. Contact stresses. Strength and failure, plastic deformation, fatigue, elastic instability. Letter grading.

156B. Mechanical Design for Power Transmis- sions. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A or 166A. Material selection, mechanical and stress analysis. Deflection and stiffness. Failure due to static loading. Fatigue failure. Design for safety factors and reliability. Applications of failure prevention in design of power transmission components. Design project involving computer-aided design (CAD) and finite element analysis (FEA) modeling. Concurrently scheduled with course C296A. Letter grading.

157. Basic Mechanical and Aerospace Engineering Laboratory. (4) Laboratory, four hours; outside study, four hours. Requisites: courses 101, 102, 103, 105A. Electrical Engineering 100. Methods of measurement and performance of basic experiments in fluid mechanics, structures, and thermodynamics. Primary sensors, transducers, recording equipment, signal processing, and data analysis.

157A. Aerospace Design Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: 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. Requisites: courses 82, 101. Not open to students with credit for course 156A. Introduction to two-dimensional elasticity, strain-stress laws, yield and plasticity, bending of thin plates; torsion of shafts; warping; torsion of thin-walled sections: shear flow, shear-lag; combined bending torsion of thin-walled, stiffened structures used in aerospace vehicles; 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. Requisite: courses 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 of composite components, non-symmetric laminates, micromechanics of composites. Letter grading.

161B. Introduction to Space Technology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 156A. Overview of space technology and applications. History of rockets, electric rockets, nuclear rockets, rockets (liquid, gas, and solid propellants), hybrid rockets. Recent missions of NASA and ISRO. Study missions of the Space Shuttle, the International Space Station, and future heavy lift launch vehicles. Credit will be given for courses 161A. Letter grading.

161C. Spacecraft Design. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 161B. Advanced aspects of potential design. Design project started in course 162D, making use of conferences and workshops. Design project consists of preliminary design of design project consists of spacecraft attitude control systems, spacecraft power systems, avionics, structural elements, materials, thermal control, and attitude/orbit determination and control. Space mission design, launch vehicles/considerations, spacecraft propulsion. Letter grading.


162D. Mechanical Engineering Design II. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisites: courses 94, 156A (or 183A or M135B), 162A (or 171A). Limited to seniors. First course in mechanical design courses. Design project started in course 162D, making use of conferences and workshops. Design project consists of preliminary design of machinery. Design for safety and reliability, and engineering ethics. Students conduct hands-on design, fabrication, and testing. Culminating project demonstrations or competition. Preparation of design project presentations in both oral and written formats. Letter grading.

158A. Analysis of Aerospace Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 82, 101. Not open to students with credit for course 156A. Introduction to two-dimensional elasticity, strain-stress laws, yield and plasticity, bending of thin plates; torsion of shafts; warping; torsion of thin-walled sections: shear flow, shear-lag; combined bending torsion of thin-walled, stiffened structures used in aerospace vehicles; elements of plate theory; buckling of columns. Letter grading.
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M168. Introduction to Finite Element Methods. (4) (Same as Civil Engineering M135C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 156A or 166A or Civil Engineering 130. Introduction to basic concepts of finite element method (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; finite element formulation of multidimensional heat flow and elasticity; numerical integration. Practical use of FEM software; geometric and analytical modeling; preprocessing and postprocessing; term projects with computers. 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 control transform methods; trolley design using Nyquist, Bode, and root locus methods; compensation; computer-aided analysis and design. Letter grading.


172. Control System Design Laboratory. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 171A. Introduction to loop shaping controller design with application to laboratory mechanical systems. Fourier spectrum models of noise and disturbances, and performance trade-offs imposed by conflicting requirements. Constraints on sensitivity function and complement, and sensitivity functions imposed by plant. Waveforms, root locus. Lab reports 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. Requisite: Mathematics 33A. Introduction to probability theory; random variables, distributions, functions of random variables, models of failure of components, reliability redundancy, complex systems, stress-strength models, fault tree analysis, statistical quality control by variables and by attributes, acceptance sampling. Letter grading.


C181A. Parametric 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, power series, transforms of Fourier, Bessel, and other transforms; properties, convolution, Fourier transforms, application of special functions. Letter grading.


M183B. 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: Chemistry 20A, Physics 1A, 1B, 1C, 4AL, 4BL. Introduction to general manufacturing methods, mechanisms, and microfabrication and nanofabrication. Focus on concepts, physics, and instruments of various microfabrication and nanofabrication techniques that have been broadly applied in industry and academia, including various physical holography technologies, physical and chemical deposition methods, and physical and chemical etching methods. Hands-on experience for fabricating microstructures and nanostructures in modern cleanroom environment. Letter grading.

C183C. Rapid Prototyping 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 has emerged as popular manufacturing technology to accelerate product creation in last two decades. Machine for layered manufacturing builds parts directly from CAD models. This novel manufacturing technology enables building of parts that have traditionally been impossible to fabricate because of their complex shapes or of variety in materials. It is capable to speed and flexibility of desktop publishing, rapid prototyping is also called desktop manufacturing, with actual three-dimensional solid objects instead of mere two-dimensional images. The technology of rapid prototyping has also been extended into meso/micro/nano-scale to produce three-dimensional functional miniature componts. Concurrently scheduled with course C297A. Letter grading.

184. Introduction to Geometry Modeling. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisite: courses M20 or (Civil Engineering M20 or Computer Science 31). Fundamentals of parametric curve and surface modeling, parametric spaces, bending functions, conics, splines and Bezier curve, coordinate transformations, algebraic and geometric form of surfaces, analytical properties of curve and surface, hands-on experience with CAD/CAM systems design and implementation. 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. Manufacturing experts will discuss the application of individual components into assembled products, shipping of such products, and eventually use, maintenance, and recycling of such products. Radio frequency identification (RFID) tagging and the application of RFID tags have become available. Tag 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 wireless network. This course will discuss the benefits and the drawbacks of RFID in many industries today.


C187L. Nanoscale Fabrication, Characterization, and Biodetection Laboratory. (4) Lecture, two hours; laboratory, three hours; outside study, seven hours. Multidisciplinary course that introduces laboratory techniques of nanoscale fabrication, characterization, and biodetection. Basic physical, chemical, and biological principles related to these techniques, top-down and bottom-up (self-assembly) nanofabrication, nanocharacterization (AEM, SEM, etc.), and optical and electrochemical biosensors. Students are 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, up to six hours. Special topics in mechanical and aerospace 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. P/NP or letter grading.

194. Research Group Seminars: 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 approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

231A. Convective Heat Transfer Theory. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 131A, 182B. Recommended: course 225A. Conservation equations for flow of real fluids. Analysis of heat transfer in laminar and turbulent,
compressible and compressible flows, internal and external flows; free convection. Variable wall temperature; effects of variable fluid properties. Analyses among convective transfer processes. Letter grading.

231B. Radiation Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Radiative properties of materials and radiative energy transfer. Emphasis on fundamental concepts, including energy levels and electromagnetic waves as well as analytical methods for calculating radiative properties and radiation transfer in absorbing, emitting, and scattering media. Applications cover laser-material interactions in addition to traditional areas such as combustion and thermal insulation. Letter grading.


231G. Microscopic Energy Transport. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Heat carriers (photons, electronics, phonons, molecules) and their energy characteristics, statistical properties of heat carriers, scattering and propagation processes. Boltzmann transport equations, derivation of classical laws from Boltzmann transport equations, deviation from classical laws at small scale. Letter grading.

232. Nanophysics and Nanotechnology. (4) Lecture, four hours; outside study, eight hours. Introduction to fundamental principles of energy 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 of biological application, nanoscale challenge, and scientific-solution-based nanotechnology to improve device performance and energy efficiency. Letter grading.

235A. Nuclear Reactor Theory. (4) Lecture, four hours; outside study, eight hours. Demand response; transactive/price-based load control; home-area network, smart energy profile; advanced metering; and implementation of available energy management strategies; solar and wind generation intermittency and storage; microgrids; grid stability; energy storage; solar electric vehicles; monitoring; distribution and transmission. Use of computer-aided models. Ancillary services; grid storage, and transmission; energy storage technologies; demand response; and mathematical models of structural mechanics. Focus on basics of nuclear engineering, nuclear safety. May be repeated for credit with topic change. S/U grading.

239B. Seminar: Current Topics in Transport Phenomena. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Lecture, discussions, student presentations, and projects in areas of current interest in transport phenomena. May be repeated for credit. S/U grading.

239F. Special Topics in Transport Phenomena. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced and current studies of one or more of the above-mentioned topics. May be repeated for credit with topic change. S/U grading.

239G. Special Topics in Nuclear Engineering. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced studies in area of current interest in nuclear engineering, such as reactor safety, risk-benefit trade-offs, nuclear materials, and reactor design. May be repeated for credit with topic change. S/U grading.

240. Computational Aerodynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 182B, 182C, 250A, 254B. Introduction to basic computational techniques of various spectral methods applied to solving partial differential equations. Particularly emphasis on techniques of solving unsteady three-dimensional Navier/ Stokes equations. Topics include Fourier transform, convolution of functions, discrete Fourier transform, etc. Letter grading.

240A. Computational Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 182B, 182C, 250A, 254B. Introduction to basic computational techniques of various spectral methods applied to solving partial differential equations. Particularly emphasis on techniques of solving unsteady three-dimensional Navier/ Stokes equations. Topics include Fourier transform, convolution of functions, discrete Fourier transform, etc. Letter grading.

241. Fluid Dynamics of Biological Systems. (4) Lecture, four hours; outside study, eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced and current studies of one or more of the above-mentioned topics. 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 ferroelectricity and ferromagnetism. Material design and synthesis of novel multiferroics. Use of first-principles quantum mechanical models of structural mechanics in cells. Structure of macromolecules, polymers as entropic springs, random walks and diffusion, mechanosensitive ion channels, DNA packing and transcriptional regulation, lipid bilayer membranes, mechanics of cytoskeleton, molecular motors, and biological electricity, muscle mechanics, pattern formation. Concurrently scheduled with course CM141. Letter grading.

250A. Foundations of Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Corequisite: course 182B. Development and application of fundamental principles of fluid mechanics at graduate level, with emphasis on incompressible flow. Flow kinematics, basic equations, constitutive relations, exact solutions on the Navier/Stokes equations, vorticity dynamics, decomposition of flow fields, potential flow. Letter grading.

250B. Viscous and Turbulent Flows. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Effects of compressibility in viscous and incompressible flows. Steady and unsteady incompressible and supersonic flows; method of characteristics; small disturbance theories (linearized and hyper- sonic); shock dynamics. Letter grading.


250E. Spectral Methods in Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 182B, 182C, 250A, 254B. Introduction to basic computational techniques of various spectral methods applied to solving partial differential equations. Particularly emphasis on techniques of solving unsteady three-dimensional Navier/ Stokes equations. Topics include Fourier transform, convolution of functions, discrete Fourier transform, etc. Letter grading.

250F. Hypersonic and High-Temperature Gas Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 103. Mechanics of aquatic locomotion; insect and bird flight aerodynamics; pulsatile flow in circulatory system; rheology of blood; microcirculation; role of fluid dynamics in arterial diseases. Concurrently scheduled with course C150G. Letter grading.

250G. 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 system; rheology of blood; microcirculation; role of fluid dynamics in arterial diseases. Concurrently scheduled with course C150G. Letter grading.

250H. Special Topics in Transport Phenomena. (2 to 4) Seminar, two to four hours; outside study, two to four hours. Designed for graduate mechanical and aerospace engineering students. Advanced and current studies of one or more of the above-mentioned topics. May be repeated for credit with topic change. S/U grading.

250I. Special Topics in Nuclear Engineering. (2 to 4) Seminar, two to four hours; outside study, two to four hours. Designed for graduate mechanical and aerospace engineering students. Advanced and current studies of one or more of the above-mentioned topics. May be repeated for credit with topic change. S/U grading.

250J. Special Topics in Fluid Mechanics. (2 to 4) Seminar, two to four hours; outside study, two to four hours. Designed for graduate mechanical and aerospace engineering students. Advanced and current studies of one or more of the above-mentioned topics. May be repeated for credit with topic change. S/U grading.

250K. 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 system; rheology of blood; microcirculation; role of fluid dynamics in arterial diseases. Concurrently scheduled with course C150G. Letter grading.

250L. Fluid Dynamics of Biological Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 150B. Review of equations of incompressible flow, finite difference methods and other methods of spatial approximation, time-marching schemes, numerical solution of model partial differential equations, application to Navier/Stokes equations, boundary conditions. Letter grading.


250P. Aircraft Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 105A, 150A, 150B. Thermodynamics of gases, aircraft jet engine cycle analysis and component performance, component matching, advanced aircraft engine topics. Concurrently scheduled with course C150P. Letter grading.

250Q. Rocket Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 103, 105A. Rocket propulsion concepts, including chemical
rocks (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 C150R. Letter grading.

25A. Stability of Fluid Motion. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Mechanisms by which laminar flows can become unstable and lead to turbulence of secondary motions. Linear stability theory; thermal, centrifugal, and spatially periodic boundary layer instability. Non-linear aspects: sufficient criteria for stability, subcritical instabilities, supercritical states, transition to turbulence. Letter grading.


25D. Combustion Rate Processes. (4) Lecture, four hours; outside study, eight hours. Prerequisite: course 250C. Basic concepts in chemical kinetics: molecular collisions, distribution functions and averaging, semiempirical and ab initio potential surfaces, trajectory calculations, statistical reaction rate theories. Practical examples of large-scale chain mechanisms from combustion chemistry of several elements, etc. Letter grading.

25P. Plasma and Ionized Gases. (4) Lecture, four hours; outside study, eight hours. Prerequisite: 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, and electrodes. Letter grading.

25A. Advanced Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 82, 150A, 150B, 182B, 182C. Special topics of current interest in advanced aerodynamics. Examples include: incompressible flow, hypersonic flow, sonic booms, and unsteady aerodynamics. Letter grading.

25B. Mathematical Methods in Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 255A. Concepts of stability; state-space interpretation; stability determination by simulation, linearization, and Lyapunov direct method; the Hamiltonian as a Lyapunov function; nonautonomous systems; averaging and perturbation methods of nonlinear analysis; parametric excitation and nonlinear resonance. Application to mechanical systems. Letter grading.

256A. Nonlinear Elasticity. (4) Same as Civil Engineering 230B.) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Kinematics of deformation, material and spatial coordinates, deformation gradient tensor, nonlinear and linear strain tensors, strain displacement relations; balance laws; Cauchy and Piola stresses, Cauchy equations of motion, balance of energy, stored energy; constitutive relations; elasticity, hyperelasticity, thermoelasticity; linearization of field equations; selection of solutions. Letter grading.


25F. Analytical Fracture Mechanics. (4) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Review of modern fracture mechanics, elementary stress analyses; analytical and numerical methods for calculation of crack tip stress intensity factors; applications in in-stiffened structures, pressure vessels, plates, and shells. Letter grading.


258A. Nanomechanics and Micromechanics. (4) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Analytical and computational modeling methods to describe mechanics of materials at scales ranging from atomistic through microstructure or transitional and up to continuum. Discussion of atomistic simulation methods (e.g., molecular dynamics, Langevin dynamics, and kinetic Monte Carlo) and their applications at nanoscale. Development and applications of dislocation dynamics and statistical mechanics methods in areas of nanocrystalline and microcrystalline heterogenous plastic deformation, material instabilities, and failure phenomena. Presentation of technical applications of these emerging modeling techniques to surfaces and interfaces, fracture, dislocation and defects, surface growth, quantum dots, nanotubes, nanoclusters, thin films (e.g., optical thermal barrier coatings and ultratrace nanolayer materials), nano-identification, smart (active) materials, nanobending and microbending, and torsion. Letter grading.

259A: Seminar: Advanced Topics in Fluid Mechanics. (4) Seminar, four hours; outside study, eight hours. Requisites: course M256A, M256B, M256C. Conduction method to classical and state-of-art modeling and design problems for solids and structures. Introduction of commercial mainstream finite element program—ABAQUS—and demonstration of how to use it in advanced way. Topics include review of finite element method, static and dynamic linear elasticity, finite deformation of hyperelastic materials, instability analysis, fracture, and implementation of user-defined subroutines in ABAQUS. Term projects using computers. Letter grading.

262. Mechanics of Intelligent Material Systems. (4) Lecture, four hours; outside study, eight hours. Recommended requisite: course 166C. Constitutive relations for electro-magneto-mechanical materials. Finite element analysis, homogenization techniques, including classical lamination theory, shear lag theory, concentric cylinder analysis, hexagonal models, and homogenization techniques as they apply to active materials. Active systems design, inch-worm, and biomorph. Letter grading.

263A. Kinematics of Robotic Systems. (4) Lecture, four hours; outside study, eight hours. Recommended requisite: courses 155, 171A. Kinematical models of serial robotic manipulators: forward and inverse kinematics, manipulator dynamics (e.g., Euler angles, Denavit-Hartenberg/DH parameters, equivalent angle vector), frame assignment procedure, direct kinematics, inverse kinematics (geometric and algebraic approaches), mechanical design topics. Letter grading.

263B. Dynamics of Robotic Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 263A. Recommended: course 255B. Dynamic models of serial and parallel robotic manipulators, including review of spatial descriptions and transformations along with direct and inverse kinematics, gear and angular velocity, Jacobi matrix (velocity and force), velocity propagation method, force propagation method, explicit formulation of Jacobian matrix, manipulator dynamics (Newton/ Euler dynamics, Lagrangian formulation), trajectory generation, introduction to parallel manipulators. Letter grading.

263C. Control of Robotic Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 263B. Sensors, actuators, and control schemes for robotic systems, including computed torque control, linear feedback control, impedance and force feedback control, and advanced control techniques from nonlinear 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. Enforced 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, impedance, haptics. Letter grading.


269D. Aeroelastic Effects in Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course 269A. Presentation of field of aeroelasticity from unified viewpoint applicable to flight structures, suspension bridges, buildings, and other structures. Derivation of aeroelastic operators and unsteady airloads from governing variational principles. Flow induced instabilities and response of structural systems. Letter grading.

M270A. Linear Dynamic Systems. (4) Same as Chemical Engineering M280A and Electrical and Computer Engineering M240A.) Lecture, four hours; outside study, eight hours. Requisite: course 171A or Electrical and Computer Engineering 141A. State-space description of linear time-invariant (LTI) and time-varying (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, singular values, Cayley/Hamilton theorem, Jordan form; solution of state equations; stability, controllability, observability, realizability, and minimality. Identification via state feedback and observers; separation principle. Connections with transfer function techniques. Letter grading.

270B. Linear Optimal Control. (4) Lecture, four hours; outside study, eight hours. Requisite: course M270A or Chemical Engineering M252.) Lecture, four hours; outside study, eight hours. Requisite: course 171A or Electrical and Computer Engineering 141A. 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 Riccati equations; implications of controllability, stabilizability, observability, and detectability solutions. 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, conditional mean and risk estimators. Letter grading.


271D. Seminar: Special Topics in Dynamic Systems Control. (4) Seminar, four hours; outside study, eight hours. Seminar on current research topics in dynamic systems control, and applications. Topics selected from process control, differential games, nonlinear estimation, adaptive filtering, industrial and aerospace applications, etc. Letter grading.


275A. System Identification. (4) Lecture, four hours; outside study, eight hours. Methods for identification of dynamical systems from input/output data, with emphasis on identification of discrete-time (digital) models of sampled-data systems. Coverage of convergence to continuous-time models. Models identified include transfer functions and state-space models. Discussion of applications in mechanical and aerospace engineering, including identification of flexible structures, microelectromechanical systems (MEMS) devices, and robots. Methods include singular value and its application to controller synthesis. Letter grading.


277. Advanced Dynamic Control for Mechatronic Systems. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Requisites: courses 171B, M270A. Digital signal processing and control analysis of mechatronic systems. System inversion-based digital control algorithms and robustness properties, Youla parameterization of stabilizing controller, previewed optimal feedback compensator, real-time control investigation of topics to selected mechatronic systems. Letter grading.

279. Dynamics and Control of Biological Oscillations. (4) Lecture, four hours; outside study, eight hours. Analysis and design of dynamical mechanisms underlying biological control systems that generate coordinated oscillations. Topics include neuronal information processing through action potentials, central pattern generator, coupled nonlinear oscillators, optimal gait (periodic motion) for animal locomotion, and entrainment to natural oscillations via feedback control. Letter grading.

M280B. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Bioengineering M250B and Electrical and Computer Engineering M250B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course M183B. Advanced discussion of micromachining processes used to construct MEMS. Coverage of many lithographic techniques as well as their combination in process integration. Materials issues such as chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

281. Microsiences. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 102, 103, 105D. Fundamental issues of being in microscopic world and mechanical engineering of microscopic devices. Topics include scale issues, surface tension, superhydrophobic surfaces and applications, and electrowetting and applications. Letter grading.

M282. Microelectromechanical Systems (MEMS) Device Physics and Design. (4) (Same as Bioengineering M252 and Electrical and Computer Engineering M252.) Lecture, four hours; outside study, eight 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.


285. Interfacial Phenomena. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 171B, M270A. Advanced laboratory using unique properties of micro sensors and microactuators for distributed and real-time control of engineering problems. Associated signal processing requirements for these applications. Letter grading.


M287. 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 fundamental principles of nanotechnology, chemical bonding and nanostructures, top-down and bottom-up (self-assembly) nanofabrication; nanocharacterization; nanomaterials, nanoelectronics, and nanophotonic technologies. Students will develop knowledge and techniques in nano areas to understand scientific principles behind nanotechnology and inspire students to create new ideas in multidisciplinary nano areas. Letter grading.

C287L. Nanoscale Fabrication, Characterization, and Biodetection Laboratory. (4) Lecture, two hours; laboratory, three hours; outside study, seven hours. Multidisciplinary course that introduces laboratory techniques of nanoscience fabrication, characterization, and biodetection. Basic physical, chemical, and biological principles related to these techniques, top-down and bottom-up (self-assembly) nanofabrication, nanocharacterization and imaging, optical and electrochemical biosensors. Students encouraged to create their own ideas in self-designed experiments. Concurrently scheduled with course C187L. Letter grading.

288. Laser Microfabrication. (4) Lecture, four hours; outside study, eight hours. Requisites: Materials Science 104, Physics 17. Science and engineering of laser-based microfabrication, including semiconductors, metals, and insulators. Topics include fundamentals of laser interactions with advanced materials, transport issues (therma, mass, chemical, electrical, etc.), use of state-of-art optics and instrumentation for laser microfabrication, applications such as rapid prototyping, surface modifications (physical/chemical), microma-
chines for three-dimensional MEMS (microelectromechanical systems) and data storage, up-to-date research activities. Student term projects. Letter grading.

294A. Compliant Mechanism Design. (4) (Formerly numbered 294B.) 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, principles of compliant-based design, polymer science, mechanical design, and fluidics. Letter grading.

294B. Compliant Mechanism Design. (4) (Formerly numbered 294B.) Lecture, four hours; outside study, eight hours. Requisite: course 166C. Matched sets. Principles of compliant-based design, polymer science, mechanical design, and fluidics. Letter grading.

295A. Radio Frequency Identification Systems: Analysis, Design, and Applications. (4) Lecture, four hours; outside study, eight hours. Designed for graduate engineering students. Examination of emerging discipline of radio frequency identification (RFID), including basics of RFID, how RFID systems function, design and analysis of RFID systems, and applications to fields such as supply chain, manufacturing, and security. Letter grading.

C296A. Mechanical Design for Power Transmission. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A or 166A. Material selection in mechanical design. Load and stress analysis. Fatigue and failure due to cyclic loading. Failure due to creep loading. Fatigue design for safety factors and reliability. Applications of failure prevention in design of power transmission shafting. Design project involving CAD and FEM modeling. Concurrently scheduled with course C156B. Letter grading.

C296B. High-Temperature Mechanical Design. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A or 166A. Material selection in mechanical design. Load and stress analysis. Fatigue and failure due to cyclic loading. Failure due to creep loading. Fatigue design for safety factors and reliability. Applications of failure prevention in design of power transmission shafting. Design project involving CAD and FEM modeling. Concurrently scheduled with course C156B. Letter grading.

M297C. Composites Manufacturing. (4) (Formerly numbered 297C.) (Same as Materials Science M297C.) Lecture, four hours; outside study, eight hours. Requisite: course 166C, Materials Science 151. Matrix materials, fibers, fiber preforms, elements of processing, autoclave/compression molding, filament winding, pultrusion, resin transfer molding, autoclave, material removal and assembly, metal and ceramic matrix composites, quality assurance. Letter grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate mechanical and aerospace engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

299A. Seminar: Systems, Dynamics, and Control Topics. (2) (Same as Chemical Engineering M297 and Electrical and Computer Engineering M248S.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel are hired, or fellow, teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours. Preparation: appointment as teaching assistant in department. Seminar on communication of mechanical and aerospace engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of visual aids; grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Petition forms to request enrollment may be obtained from advisor. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Examination: appointment as teaching assistant in department. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Supervised independent research for MS candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

M297G. Research in Engineering. (1 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Supervised independent research for MS candidates, including thesis prospectus. S/U grading.

M297H. Research in Engineering. (1 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Supervised independent research for MS candidates, including thesis prospectus. S/U grading.

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 biophysical, technological, 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 years of medical school, with the third and fourth years constituting a continuum of clinical experience. Students become integrated into a ward team and have significant ambulatory care experiences. They apply and extend their clinical skills, medical knowledge, and judgment in the care of patients assigned to them under the immediate supervision of house officers and attending staff.

The department offers a broad range of advanced clinical clerkships in general and subspecialty ambulatory and hospital-based internal medicine at all the major affiliated centers. For more details on the Department of Medicine and courses offered, see the department website.

Medicine

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion 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

M160A. Health Outreach and Education for At-Risk Populations. (4) (Same as Public Health M160A, Biostatistics M170A, and Preventive Medicine M170B.) Lecture, four 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, with field visits. P/NP or letter grading.

M160B. Health Outreach and Education for At-Risk Populations. (4) (Same as Public Health M160B.) Lecture, two hours; discussion, two hours. Requisite: course M160A. Second in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, with field visits. P/NP or letter grading.

160C. Health Outreach and Education for At-Risk Populations. (4) Seminar, two hours; fieldwork, six to eight hours. Requisites: courses M160A, M160B. Processes involving designing, delivering, and assessing community health education programs, under supervision of professional staff. P/NP or letter grading.

180. Special Topics in Medicine. (4) Lecture, four hours; discussion, one hour. Medical topics of special interest to undergraduate students. Specific subjects may vary each term depending on particular interest of instructors and students. Topics may include East/West medicine and global medicine. May be repeated for credit with topic or instructor change. P/NP or letter grading.

199. Directed Research in Medicine. (2 to 8) Tutorials, research, five to eight hours. Limited to juniors/seniors. Supervised individual research or investigation undertaken under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


M225. Interdisciplinary Response to Infectious Disease Emergencies: Medicine Perspective. (4) (Same as Community Health Sciences M256, Nursing M298, 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 diseases in the community. Preparation: coursework in epidemiology, statistics, and history of disease. Also attended by students in Schools of Dentistry, Nursing, and Public Health during weeks two through five. Letter grading.

M230A–M230B. Methodology in Clinical Research I, II. (4–4) (Same as Biostatistics M230A–M230B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Requisites: Biostatistics 170A, 265A. Course M230A is requisite to M230B. 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 Review Board (IRB), and related topics. S/U or letter grading.

M263. Clinical Pharmacology. (2) (Same as Biomathematics 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 as they 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 M296B 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, multicompartamental, noncompartmental, and input/output models, linear and nonlinear. Emphasis on model applications, limitations, and relevance in biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

M270D. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioengineering M296B, Biomathematics M270, and Computer Science M296B.) Lecture, four hours; outside study, eight hours. Requisite: course M270C or Bioengineering CM296B or Biomathematics 220. Estimation methodology and model parameter estimation algorithms for fitting dynamic systems 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.


MICROBIOLOGY, IMMUNOLOGY, AND MOLECULAR GENETICS

College of Letters and Science and David Geffen School of Medicine

1602 Molecular Sciences
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Microbiology, Immunology, and Molecular Genetics

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Jerome H. Zack, PhD, Chair

Professors

Arnold J. Berk, MD (Presidential Professor of Molecular Cell Biology)
Douglas L. Black, PhD
Peter J. Bradley, PhD
David A. Campbell, MD, PhD
Irvin S.Y. Chen, PhD
Genhong Cheng, PhD
Asim Dasgupta, PhD
James S. Economou, MD, PhD
Robert P. Gunsalus, PhD
David A. Haake, MD, in Residence
Kant L. Hill, PhD
Alexander Hoffmann, PhD (Thomas M. Asher Endowed Professor of Microbiology)
Marcus Horwitz, MD
Patricia J. Johnson, PhD
H. Ronald Kaback, MD
Donald B. Kohn, MD
Aldons J. Luais, PhD
Otoniel M. Martinez-Maza, PhD
Megan M. McEvoy, PhD
M. Carrie Miceli, PhD
Jeffery F. Miller, PhD (Fred Kavli Professor of Nanosystems Research)
Robert L. Modlin, MD
Manuel L. Penichet, MD, PhD
Wenyuan Shi, PhD
Stephen T. Smale, PhD
Owen N. Witte, MD (Presidential Professor of Developmental Immunology, University Professor)
Yi Xing, PhD
Otto O.Yang, MD
Jerome H. Zack, PhD
Z. Hong Zhou, PhD

Professors Emeriti

Benjamin Bonavida, PhD
Frederick A. Eisertling, PhD
Lawrence T. Feldman, PhD
Sydney M. Finegold, MD
C. Fred Fox, PhD
Rafael J. Martinez, PhD
James N. Miller, PhD
Jeffrey H. Miller, PhD
Sherie L. Morrison, PhD
Debi P. Nayak, BVSc, PhD
Dan S. Ray, PhD
Larry Simpson, PhD
Ronald H. Stevens, PhD
Fuyuhiko Tamanoi, PhD
Christel H. Uittenbogaart, MD
Randolf Wall, PhD
Felix O. Wettstein, PhD
Bernadine J. Wisnieski, PhD

Associate Professors

Steven J. Bensinger, VMD, PhD
Elissa A. Hallem, PhD
Beth A. Lazazera, PhD
April D. Pyle, PhD

Assistant Professors

Oliver I. Fregoso, PhD
Melody Man Hing Li, PhD
Timothy E. O’Sullivan, PhD
Genetics major has the following learning outcomes:

- Molecular Genetics BS

Undergraduate students majoring in Microbiology, immunology, and Molecular Genetics prepare for careers in biomedical research, medicine, dentistry, or other health professions, biotechnology and gene 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 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 gene 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 basic biological fields of genetics and cellular and molecular biology.

The graduate program emphasizes the areas of molecular genetics, cell biology, immunology, cell and virus structure and morphogenesis, animal virology, general bacteriology and physiology, host/parasite relationships, medical microbiology, microbial genetics, microbial pathogenesis, and recombinant DNA research. Students are prepared for creative research careers in all of these fields. The objective of the department is to provide breadth in microbiology, immunology, and molecular genetics at the undergraduate level and depth and training in independent study and research for graduate students.

Microbiology, Immunology, and Molecular Genetics BS

Learning Outcomes

- Demonstrated knowledge of key disciplinary concepts
- Address scientific questions or solve problems using quantitative, computational, and inquiry-related skills, including developing hypotheses, designing and performing experiments, analyzing data, and interpreting results
- Execution of database searches for scientific literature and bioinformatics data related to investigatory tasks
- Reading, analysis, and use of scientific papers in the development of research projects, in discussions with peers and mentors, and as evidence to substantiate conclusions in written assignments
- Effective written and oral communication skills
- Work effectively in individual and collaborative contexts
- Value research and its relevance to one's own life and society

Premajor

While students are completing the preparation courses for the major, they are classified as Microbiology, Immunology, and Molecular Genetics premajors.

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, 30C, 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 sciences sequences—either Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence.
- Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade of D or lower in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Microbiology, Immunology, and Molecular Genetics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

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

Students intending to major in Microbiology, Immunology, and Molecular Genetics may seek counseling and petition to enter the major in the Student Affairs Office, 1602B 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, C165A, (2) two courses from one of the following groups: (a) Microbiology, Immunology, and Molecular Genetics 103AL and 103BL or (b) 109AL and 109BL, (3) two focus elective courses selected from Chemistry and Biochemistry 153L, Microbiology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132, CM156, 158, 168, CM256, Molecular Cell, and Developmental Biology 138, 165A, and (4) one general elective course selected from any course under items 3 above, Bioengineering 100, CM145, CM178, Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 136, 1410, 153B, 153C, 153L, 154, 156, CM160A, C161A, 171, 172, C179, C181, Computer Science CM121, CM122, CM124, Ecology and Evolutionary Biology 121, C135, 136, 137, 162, Epidemiology 100, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics C122, 174, 191H, 198C, 199 (may be taken once), Molecular Cell, and Developmental Biology 100, 104AL, 138, M140, C141, 143, 144, C150, 165A, 168, 172, M175A, M175B, M175C, 187AL, Neuroscience M101A, M101B, M101C, Physiological Science CM103, 121, 124, 125, 128, Statistics 100A, 100B.

No more than 4 units of course 198C or 199 may be applied toward the general electives under Plan I.

Plan II—Advanced Independent Research

- Required: Twelve 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, C165A, (2) Microbiology, Immunology, and Molecular Genetics 196A, 196B or Molecular Cell, and Developmental Biology 196A, 196B, (3) Microbiology, Immunology, and Molecular Genetics 180A, 180B or Molecular Cell, and Developmental Biology 180A, 180B, (4) two focus 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, and (5) one general elective course selected from any course under item 3 above, Bioengineering 100, CM145, CM178, Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 136, 1410, 153B, 153C, 156, CM160A, C161A, 171, 172, C179, C181, Computer Science CM121, CM122, CM124, Ecology and Evolutionary Biology 121, C135, 137, 162, Epidemiology 100, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics 103AL, 103BL, 109AL, 109BL, C122, 174, 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, M101B, M101C, Physiological Science CM103, 121, 124, 125, 128, Statistics 100A, 100B.

No more than 4 units of course 198C or 199 may be applied toward the general electives under Plan II.

Plan II requires submission and approval of an admissions application. Detailed information
may be obtained at the Student Affairs Office, 1602B Molecular Sciences.

Each major course must be taken for a letter grade of C− or better, and students must have a minimum overall grade-point average of 2.0 or better in these major courses. 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, 1602B 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 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. Requisites: 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 sympto- toms and disease caused by microbial infections. Letter grading.

15. Nanoscope Microscopy Laboratory Lecture, 26 hours; laboratory, nine hours. Recommended prerequisites: high school biology, chemistry, and physics. Designed as one-week summer course for high school students. Exploratory introduction to three key microscopic techniques in nanoscience research: fluorescence microscopy, scanning probe microscopy, and electron microscopy. Nanoscience is umbrella term that encompasses one diverse interdisciplinary branch of modern science research, including molecular sciences, biotechnology, material science, chemistry, biochemistry, and various fields of engineering. Offered in summer only. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

69. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed for students to the lower-divi- sion lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to lower-division lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of four units. Individual honors contract re- quired. 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 per quarter (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
100L. Microbiology Laboratory for Professional Schools. (3) Lecture, two hours; laboratory, three hours. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L with grades of C− or better. Recommended corequisite: course 101. Limited to nonmajors. Exper- imental techniques of microbiology, with emphasis on cultivation and characterization of bacteria. Labora- tory exercises include light microscopy, quantitative techniques, and identification methods. Students learn to work effectively in groups to perform experi- ments, record observations, and analyze results. Letter grading.

101. Introductory Microbiology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L. Historical foundations of microbiology; introduction to bacterial structure, physiology, biochemistry, genetics, and ecology. Letter grading.

102. Introductory Virology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, or 7A, 7B, and 23L with grades of C− or better. Biological properties of bacterial and viral animals, replication, methods of detection, interactions with host cells and multicellular hosts. Letter grading.

103AL. Research Immersion Laboratory in Virolo- gy. (6) Lecture, two and one half hours; laboratory, eight hours. Requisites: course 101, Life Sciences 3, or 23L. Course 103AL is enforced requisite to 103BL. Limited to Microbiology, Immunology, and Molecular Genetics and Molecular, Cell, and Developmental Bi- ology majors. Research-oriented laboratory experi- ence designed to promote discovery of novel bacte- rial viruses (phages). Working in teams, students con- duct research projects that incorporate techniques in microbiology, virology, and molecular biology and in- volve use of bioinformatics tools and computational analysis software. Emphasis on reading and under- standing scientific literature as well as improving crit- ical thinking skills such as improving critical thinking- es or experimentally address scientific questions. Critical aspects of research process, including record keep- ing, ethics, laboratory safety and citizenry, me- chanics of scientific writing, and project responsibili- ties and ownership. Letter grading.

103BL. Advanced Research Analysis in Virology. (4) Laboratory, six hours. Enforced requisites: course 103AL, Statistics 13. Limited to Microbiology, Immu- nology, and Molecular Genetics premajors and ma- jors. Designed to provide students authentic, dis- covered-based research experience in life sciences. In- vestigation to be primarily computational in nature whereby students use bioinformatics or mathematical modeling software to interpret, expand, or refine data- sets. Use of graphics software to prepare figures and illustrations for presentations, reports, and websites (database entries). Research accomplish- ments discussed in weekly seminar-style meetings in which student groups create PowerPoint slides and formally present results to class. Large seminar team poster and final report describing entire research project required. Letter grading.

105. Biological Microscopy. (4) Lecture, four hours; laboratory, three hours (five weeks only). Requisite or corequisite: Physics 1C or 6C. Introduction to modern microscopy technologies used in biochemistry, med- cine, microbiology, and nano research. Basic image formation principles of microscopy, methods for sample preparation, imaging, data acquisition, and three-dimensional reconstruction and visualization. Fluorescence, confocal, and super-resolution light mi- croscopy; transmission electron microscope, electron tomography, and three-dimensional reconstruction mi- croscopy; and atomic force and other scanning probe microscopy modalities. Practical experience in re- search provided through five carefully designed electron microscopy laboratory modules. P/NP or letter grading.


109AL. Research Immersion Laboratory in Micro- biology. (5) Lecture, three hours; laboratory, eight hours. Requisites: course 101, Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L. Course 109AL is enforced requisite to 109BL. Limited to Microbiology, Immu- nology, and Molecular Genetics premajors and majors and Molecular, Cell, and Developmental Biology ma- jors. Research-oriented laboratory experience de- signed to promote discovery of novel microorgan- isms. Working in teams, students conduct research projects that incorporate techniques in microbiology and molecular biology and involve use of bioinfor- matics tools and phylogenetics software for data analysis. Emphasis on reading and understanding sci- entific literature as well as improving critical thinking- es such as ability to create and evaluate hypotho- ses or experimentally address scientific questions. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenry, me- chanics of scientific writing, and project responsibili- ties and ownership. Letter grading.
109RL. Advanced Research Analysis in Microbiology. (4) Laboratory, six hours. Enforced requisites: course 109AL, Statistics 13. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors. Designed to provide students authentic, discovery-based research experience in life science. Investigation to be primarily computational in nature whereby students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Chemical biology and biochemistry to prepare students for graduate courses and illustrations for presentations, posters, reports, and websites (database entries). Research accomplishments discussed in weekly seminar-style meetings in which students create PowerPoint slides and formally present results to class. Production of team poster and final report describing entire research project required. Letter grading.

C112. 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 molecular 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 technolo- gies used to create, analyze, and apply to evolution- ary genomics, complex traits, stem cell biology, de- velopmental biology, epigenetics, and genetic dissec- tion of diseases. Concurrently scheduled with course C222. 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 permission of instructor. Participation in database- based research experience, working as research team to analyze microbial genomes using bioinformatics techniques involving variety of online databases. In- vestigation of cellular pathways and structures as means to discover novel genes and unusual varia- tions in classical systems. Results of high-quality an- notation efforts may lead to publication in peer-re- viewed journals. Offered in summer only. Letter grading.


C134. Ethics and Accountability in Biomedical Research. (2) Seminar, two hours. Designed for grad- uate students and undergraduates who have credit for life sciences or biological individual study 199 course. Responsibilities and ethical conduct of inves- tigators in research, data management, mentorship, grant applications, and publications. Responsibilities to peers, sponsoring institutions, and society. Con- flicts of interest, disclosure, animal subject welfare, human subject protection, and areas in which investi- gational goals and certain societal values may con- flict. Concurrently scheduled with course C234. P/NP grading.

CM156. Human Genetics and Genomics. (5) Same as Molecular, Cell, and Developmental Biology CM156. Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4, 23L. Application of ge- netic principles in human populations, with emphasis on genomics, family studies, positional cloning. Men- dellian and common diseases, cancer genetics, an- imal and plant models, experience in microarrays, popu- lation genetics, and genetic counseling. Lectures and readings in literature, with focus on current questions in fields of medical and human genetics and method- ologies appropriate to address such questions. Con- currenty scheduled with course CM256. Letter grading.

158. Microbial Genomics. (4) Lecture; three hours; discussion, one hour. Enforced requisites: course 135A, Evolution, biodiversity, and sequencing of genomes; bacterial and viral genomes; bioinformatics; gene knockouts; genomics of antibiotic resistance; proteomics. Guest lecturers from department and related departments who discuss key papers with focus on their areas of expertise. Letter grading.

168. Molecular Parasitology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L. Survey of parasitic pro- tozoa as primary interactions with host, but also as model systems for analysis of basic biological phenomena such as gene regulation, molecular de- velopment, cell-cell interactions, molecular evolution, and novel biochemical pathways. Letter grading.

174. Advanced Topics in Molecular Parasitology. (2) Lecture, two hours. Requisites: course 168, Life Sciences 3 and 4 or 7A, 7B, and 23L. Examination of recent advances in genetics and host-parasite relationship. Specific topics include par- asite development, antigenic variation in trypano- somes, RNA editing, prospects for parasitic vaccines. Letter grading.

180A. Scientific Analysis and Communication I. (2) Seminar, two hours. Enforced corequisite: course 196A. Students read and discuss scientific articles and give presentations, introducing research topics using relevant research articles and critical aspects of re- search process, including record keeping, ethics, lab- oratory safety and citizenry, mechanics of scientific writing, diverse approaches to research, and project responsibilities. Organization of high-quality written and oral presentations. Letter grading.

180B. Scientific Analysis and Communication II. (2) Seminar, two hours. Enforced requisites: course 180A, Statistics 13. Enforced corequisite: course 196B. Students give presentations to laboratory- meeting or research symposium talk in which speakers discuss project goals, methodological ap- proaches, results, and conclusions. How to write re- search papers, present data, and present scientifi- stic posters. Production of deliverables that demon- strate research achievements and creation of sense of pride for work accomplished as skilled researchers. Letter grading.

C185A. Immunology. (5) (Formerly numbered 185A.) Lecture, three hours; discussion, 90 minutes. Requi- sites: Chemistry 15SA, 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 C285. Letter grading.

185B. Advanced Immunology and Applications. (2) Lecture, 90 minutes. Requisite: course 185A. Covers similarities and differences between host im- mune reactions to bacterial and viral infections, and balance required between immune and inflammatory responses. Discussion of various strategies to en- hance our immune system against invasion by patho- gens or cancer cells without triggering inflammatory and autoimmune diseases, including new cancer im- munotherapies. Letter grading.

188A. Special Courses in Microbiology, Immunology, and Molecular Genetics. (1) 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.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limits to 16 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to upper-division lecture course. In- depth analysis of research project in microbiology 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- quires Honors content noted on transcript. Letter grading.

191H. Honors Research Seminars: Microbiology, Immunology, and Molecular Genetics. (2) Seminar, three hours. Requisites: Requisites or corequisites: course 198A or 198B or 198C. Limited to senior microbiology, immu- nology, and molecular genetics honors program stu- dents. Discussion of current research literature, with focus on thesis topics/areas that students are working on as part of departmental honors requirements. One- hour presentation of student thesis research and cur- rent literature associated with it required. May be re- peated for credit. P/NP grading.

192. Undergraduate Practicum in Microbiology, Immunology, and Molecular Genetics. (2) Seminar, six hours. Limited to junior/senior departmental ma- jors. Training and supervised practicum for advanced undergraduate students. Students assist in prepara- tion of materials and development of innovative pro- grams under guidance of faculty members in small course settings. Consult Student Affairs Office for fur- ther information. May be repeated toward course requirements for departmental majors. May be re- peated for credit. P/NP or letter grading.

193A. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discus- sion of readings selected from current literature in mi- crobiology, immunology, and molecular genetics field. Letter grading.

193B. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discus- sion of readings selected from current literature in mi- crobiology, immunology, and molecular genetics field. Letter grading.

194A. Research Group Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Designed for undergraduate students who are part of research group in department faculty labo- ratory. 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.

195A. Research Group Seminars: UC LEADS and NIH/MARC. (2) Lecture, 90 minutes. Limited to stu- dents in UC LEADS and NIH/MARC programs. Analy- sis, review, and critique of current papers in biomed- ical sciences disciplines, using skills necessary for ef- fective oral communication and effective use of software such as PowerPoint for oral presentations. May be repeated for credit. Letter grading.

196A. Research Apprenticeship I in Microbiology, Immunology, and Molecular Genetics. (4) Tutorial, 12 hours. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L. 3.0 prerequisite and/or major grade- point average, and at least one term of prior experi- ence in same laboratory in which 196A research is to be conducted. Enforced corequisite: course 185A. Course 196A is enforced requisite to 196B. Designed for undergraduate students who are interested in pur- suing inquiry-based and hypothesis-driven research experience in laboratory of departmental faculty mentor. Guided research course to be taken in con- junction with course 196A, followed by continuation research course 196B, for maximum of 12 units de- pending on specific laboratory; however, all students learn how to apply scientific method: propose hy- pothesis, identify experiments to address hypothesis, perform experiments, analyze results, and how to re- cord information from experimental activities into lab- oratory notebooks and to write research proposals. Letter grading.

MILITARY SCIENCE – ARMY ROTC

See African and Middle Eastern Studies under International and Area Studies

MILITARY SCIENCE – ARMY ROTC

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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 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 spe-
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 between $300 and $500 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, Army Reserves, or Army National Guard while earning a college degree. The curriculum supplements students' academic majors by offering elective courses ranging from leadership and management to military law. Courses are augmented with leadership laboratories that stress practical skills such as first aid, land navigation, survival techniques, rappelling, military tactics, and scenario-driven leadership reaction courses. Non-ROTC students may enroll in many of the military science courses without enrolling in the ROTC program.

In addition, 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 tiered stipend ranging from $3,000 to $5,000 per year and a $1,200 book allowance. Nonscholarship, contracted ROTC cadets also receive the tiered stipend of $3,000 to $5,000 per year. Students in the program also compete for over $50,000 in merit-based scholarships provided annually by various private organizations that support the Army ROTC program. Additionally, students may work part-time as officer trainees in local Army Reserves or National Guard units through the simultaneous membership program (SMP). Contracted students can fly free on military aircraft within the continental U.S. on a space-available basis.

Students may select a branch of the Army in which to be commissioned from 16 specialty fields, including military intelligence, aviation, signal communications, finance, logistics, nursing, and engineering. Prior to completion of the ROTC program, students may request to go on active duty or serve part-time in the Army Reserves or National Guard.

Students aspiring to become Army officers follow prescribed course sequences with the Military Science Department and a physical fitness program. Generally, the courses consist of one 2- to 4-unit course per term and physical fitness sessions one to three times per week, depending on the participation-level requirements.

The military science curriculum is divided into two parts: (1) the Basic Course, two years of lower-division study during which students must complete six military science courses, and (2) the Advanced Course, two years of upper-division study consisting of six military science courses, one military history course, and a five-week summer camp.

Army ROTC students must satisfy the military history requirement by completing Military Science 110 or another history course approved by the chair.

Transfer students and others who were unable to enroll in the Basic Course can receive equivalent credit in several different ways (see Two-Year Program below).

Admission to the Advanced Course is limited to selected students who meet all academic and physical requirements. Students in this course receive a subsistence allowance between $450 and $500 a month for 10 months during each of the two academic years, plus military science uniforms. After completion of the Advanced Course and graduation, students have the opportunity to be commissioned as second lieutenants in one of the Army's 16 specialty areas 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 Leaders' Training Course, membership in the Army Reserves or National Guard, completing two years of college-level Air Force or Navy ROTC, or previous active duty military service. The Army also allows enrollment in the two-year program while students attend graduate school.

Commissioning

Successful completion of the Advanced Course program and a bachelor's degree may lead to a commission as a second lieutenant in the Army Reserves, National Guard, or Active Army.

Military Science

Lower-Division Courses

2. Leadership Laboratory. (No credit) Laboratory, three hours (lower-division cadets) or four hours (upper-division cadets). All cadets must be concurrently enrolled in a military science course. Upper-division cadets must also be under a contracted obligation with the department. Designed to allow cadets to develop leadership techniques and military skills taught in classroom and to develop their confidence as future military officers. No grading.

11. Foundations of Officerhip. (2) Lecture, one hour. Introduction to issues and competencies that are central to commissioned officer's responsibilities. Framework established to understand officerhip, leadership, military customs, briefings, and life skills such as physical fitness, nutrition, and time management. P/NP or letter grading.

12. Basic Military Leadership. (2) Lecture, one hour. Requisite: course 11. Introduction to fundamentals of leadership, Army leadership values, ethics, and counseling techniques. Foundation of basic leadership development. Central to commissioned officer responsibilities established. P/NP or letter grading.


19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

21. Individual Leadership Development. (3) Lecture, two hours. Introduction to various individual leadership personality types, in combined lecture, discussion, and experiential learning, to assist students in development of their own individual leadership style. Additional emphasis on military factors and principles of leadership, goal setting, basic communication, and consideration of others. P/NP or letter grading.

22. Leadership Development and Military Planning. (3) Lecture, two hours. Requisite: course 21. Discussion of various methods of communication, planning, and decision making, through combined lecture, discussion, and experiential learning, with focus on written communication and group communication essential for leadership development. Introduction to and application of military planning process in developing operations orders. P/NP or letter grading.

23. Subordinate Development and Army Organization. (3) Lecture, two hours. Requisite: course 22. Discussion/application of team-building techniques and subordinate development, through combined lec-
Upper-Division Courses


131. Tactical Planning and Analysis. (4) Lecture, three hours; laboratory, four hours. Introduction to leadership development process used to evaluate military leadership performance. Examination of how to conduct individual and small unit training as well as introduction to basic principles of tactics. Emphasis on study of reasoning skills, troop leading procedures, and military orders process. P/NP or letter grading.

132. Army Officerhood and Communication. (4) Lecture, three hours; laboratory, four hours. Examination of officerhood that culminates in detailed case study. Interpersonal communication, with focus on general communication theory as well as written and spoken communication skills. Presentation of information being to receive feedback from both in instructor and fellow students. P/NP or letter grading.

133. Leadership and Problem Solving. (4) Lecture, three hours; laboratory, four hours. Examination of role communications, values, and ethics play in effective leadership, including ethical decision making, consideration of others, transactional and transformational leadership, and survey of Army leadership doctrine. Emphasis on improving oral and written communication abilities and leadership development and assessment. P/NP or letter grading.

141. Leadership and Management. (4) Lecture, three hours; laboratory, four hours. Interactive course to develop student proficiency in planning and executing complex training operations. Counseling techniques and development of skills needed to lead various organizations. Exploration of training management, leadership skills, and developmental counseling techniques. P/NP or letter grading.

142. Leadership, Ethics, and Military Law. (4) Lecture, three hours; laboratory, four hours. Interactive course to enhance student understanding of organizational culture, leadership, and ethics. Understanding and enhancement of leader-member relations, assessment of organizational culture and ethical climate, and how to effect change in organizations. Exploration of foundations of military law and law of war. P/NP or letter grading.

143. Officerhood: 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.

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

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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 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 both 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 provides 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 housestaff (interns, residents, or fellows) who have been accepted into the STAR Program by its selection committee in order to qualify.

The department, together with the Division of Labor of Drugs and Toxicology, 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 (supervision of research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor selected by the student. Students may 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). Requires: 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). Requires: course M110A. Life Sciences 2, 3. Introduction to pharmacology for under-graduate students, emphasizing principles underlying 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 (CSST) students. Communication and collaboration skills, specifically in interdisciplinary settings and introduction to research project design and proposal process. Students submit written CSST project proposal and give oral presentations of scientific proposals. May be repeated for credit. Letter grading.


237. Research Frontiers in Cellular and Molecular Pharmacology. (8) 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/effecter coupling, neurotransmitter and neuropeptide, and behavioral pharmacology. S/U or letter grading.

M241. Introduction to Chemical Pharmacology and Toxicology. (8) Same as Molecular Toxicology M241. Lecture, four hours. Introduction to general principles of pharmacology. Role of chemical properties of drugs in their distribution, metabolism, excretion, and modes of action. S/U or letter grading.

M246. 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 biological imaging in modern biology and medicine, including instrumentation, image processing, and applications of imaging for range of modalities. Practical experience provided through series of imaging laboratories. Letter grading.


M257. Introduction to Toxicology. (4) (Same as Pathology M257.) Requires knowledge of biochemical and systemic toxicology, basic mechanisms of toxicology, and interaction of toxic agents with specific organ systems. S/U or letter grading.

M258. Pathologic Changes in Toxicology. (4) Same as Pathology M258. Designed to give students experience in learning normal histology of tissues which are major targets of toxic and the range of pathologic changes that occur in these tissues (liver, bladder, lung, kidney, endocrine 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 Molecular Medicine (IMED) Seminar speakers, with focus on scientific approach and rationale, experimental methods, novel and pioneering findings (past and present), relevant background information on speakers and their institute, 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.

286. Business of Science: Exploring Entrepreneurship Seminar. (1) Seminar, one hour. Limited to graduate students. Further exploration of topics discussed in course 287, allowing students to interact with speakers and bring their individual concerns to table. Past and present students encouraged to enroll. S/U grading.

287. Business of Science. (2) Lecture, two hours. Designing and running a business (undergraduate students may enroll with consent of instructor). Introduction to principles of business and entrepreneurship in technology sectors. Business skills taught to effectively perform in environment and within academic environment. Application of course material by performing feasibility studies that have potential to receive funding and become actual companies. Exploration of entrepreneurship, particularly formation and operation of new business ventures. Presentations by and questioning of successful technology entrepreneurs, identifying and evaluating new venture opportunities, development of financing, and entry and exit strategies. S/U or letter grading.

288. Gene Therapy. (4) Lecture, three hours; discussion, one hour. Introduction to basic concepts of gene therapy, wherein treatment of human disease is based on transfer of genetic material into an individual. Discussion of molecular basis of disease, gene delivery vectors, and animal models. Letter grading.

291. Special Topics in Pharmacology. (4) Lecture, four hours. Examination in depth of topics of current importance in pharmacology. Emphasis on recent contributions of special interest to advanced PhD candidates and faculty. Letter grading.

292. Research Projects, Proposals, and Presenta-

Molecular and Medical Pharmacology / 547
Molecular Biology and Developmental Biology

Interdepartmental Program
College of Letters and Science

172 Boyer Hall
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Los Angeles, CA 90095-1570

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; nucleic acid biochemistry; gene regulation; immunobiology; microbiology/virology and pathogenesis; molecular evolution and paleobiology; oncogenes and signal transduction; plant molecular biology; protein and enzyme structure and function; genomics; bioinformatics; and structural biology.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Molecular Biology Program offers the Doctor of Philosophy (PhD) degree 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 4) Tutorial, to be arranged. Directed individual research or study. P/NP grading.

596. Directed Individual Research in Pharmacology. (4 to 12) Tutorial, to be arranged. Directed individual research or study. P/NP grading.

599. Research for and Preparation of PhD Dissertation. (4 to 12) Tutorial, to be arranged. Directed individual research or study. P/NP grading.

Graduate Courses

252. Writing for Science (1) Seminar, one hour. Corequisite: Biological Chemistry 251A or 251B or 251C. Limited to first-year Molecular Biology PhD students. Development of specific skills in scientific writing within context of one advanced course on mechanics of gene transcription. Letter grading.

254A. Concepts in Molecular Biosciences. (3) Lecture, three hours; discussion, two hours. Limited to human genetics and molecular biology graduate students. Five-week course covering four basic experimental approaches of biochemistry and molecular biology in context of various specific topics, including (1) structural biology, with protein and nucleic acid structure and molecular recognition, (2) use of cell-free and purified in vitro systems to dissect reaction mechanisms, (3) biochemical approaches to dissecting complex reactions/pathways in cells, and (4) enzymology and protein chemistry. Letter grading.

254B. Concepts in Molecular Biosciences. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced requisite: course 254A. Important biophysical problems that have been genetically analyzed in different organisms or small number of related problems. Major genetic approaches used in relevant organisms, including both forward and reverse genetic approaches, genetic interactions between genes (genetic enhancers and suppressors), transgenic technology, and systematic genomic strategies. Letter grading.

254C. Concepts in Molecular Biosciences. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced requisites: courses 254A, 254B. Molecular mechanisms underlying complex problems in cell biology. Experimental approaches used to define mechanisms involved in protein targeting, cell structure and subcellular organization, cell communication, and intracellular signaling. Analysis of pathways that connect these cellular processes. Letter grading.

254D. Concepts in Molecular Biosciences. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced 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.

298. Current Topics in Molecular Biology. (2) Student presentation/seminar, two hours. Students present oral critiques and participate in discussions on assigned topics. S/U grading.

300. Entering Mentoring Training Program. (1) Seminar/discussion, one and one half hours. 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 credit. P/NP 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.

Professors

John S. Adams, MD
Utpal Banerjee, PhD (Irving and Jean Stone Professor)
Jau-Nian Chen, PhD
Amander T. Clark, PhD
Daniel H. Cohn, PhD
Robert B. Goldberg, PhD
Volker Hartenstein, PhD
Ann M. Hirsch, PhD
M. Luisa Iruela-Arispe, PhD
Steven E. Jacobsen, PhD
Tracy L. Johnson, PhD (Maria Rowena Ross Term Professor of Cell Biology and Biochemistry)
D. Leanne Jones, PhD
James A. Lake, PhD
Frank A. Laski, PhD
Chento Lin, PhD
Shuo Lin, PhD
Jeffrey A. Long, PhD
William E. Lowry, PhD
Karen M. Lyons, PhD
Hanna K.A. Mikkola, MD, PhD
Matteo Pellegrini, PhD
Alvaro Sagasti, PhD

Professors Emeriti

William R. Clark, PhD
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, 23L, and 107. They may not substitute courses in either sequence.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Molecular, Cell, and Developmental Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C; one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

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

The Major

Required Courses: Chemistry and Biochemistry 153A; one course from Molecular, Cell, and Developmental Biology 104AL, 150AL, 187AL, 198B, 198C, 199B, 199C, or Microbiology, Immunology, and Molecular Genetics 103AL; one developmental biology course from Molecular, Cell, and Developmental Biology 138 or 141; one cell biology course from M140 or 165A; and one molecular biology course from 144 or 165B.

Electives: At least 20 upper-division elective units, of which at least 10 must be in courses offered by the department. Any upper-division departmental course, except Molecular, Cell, and Developmental Biology 100, 190A, 190B, 190C, 192A, 192B, 193, 194A, or 199, may be selected. The following courses outside the department may be taken to satisfy a maximum of 10 units in this category: Biostatistics 100A or Statistics 100A, Chemistry and Biochemistry 153C, 153L, 154, 156, C159, CM160A, Ecology and Evolutionary Biology 110, 121, 162, 162L, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics 100L, 101, 102, 103AL, 105, 106, 158, 168, 174, C185A, Physiological Science C126, 166, Society and Genetics 102.

Credit for a maximum of two upper-division developmental biology courses from Molecular, Cell, and Developmental Biology 138, C141, and 143 may be applied toward the major. Due to content overlap, students with credit for both courses 165A and 165B cannot receive major credit for course M140.

A maximum of 4 units of approved seminar course credit may be applied toward the electives requirement. A maximum of 12 units of Molecular, Cell, and Developmental Biology 198A through 198D or 199A through 199D may be applied toward the major. Credit for 199 courses from other departments may not be applied except by petition.

Any single course may be applied toward only one category within the major (e.g., course C141 may be applied toward the required or elective category but not toward both).

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Majors must earn a C– or better in each preparation for the major course, and at least a 2.0 (C) overall average in all courses applied toward the major.

Honors Program

Admission

The honors program provides exceptional Molecular, Cell, and Developmental Biology majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission to the honors program. Students must have the sponsorship of an approved faculty adviser.

For more information and application forms, students should contact the Student Affairs Office, 128 Horshey 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.
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 across UCLA. P/NP grading.

304. Collaborative Undergraduate Research Laboratory in Yeast, Genetics, and Molecular Biology. (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.

AIDS and Other Sexually Transmitted Diseases. (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 characterizing and addressing of HIV epidemics, as well as of other sexually transmitted diseases. P/NP or letter grading.

50. Stem Cell Biology, Politics, and Ethics: Teasing Apart Issues. (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 potentials. Discussion of history of debate surrounding embryos, as well as various social, ethical, political, and economic aspects of stem cell research. P/NP or letter grading.

50. Biomedical Ethics. (Lecture, three hours; discussion, one hour. Examination of importance of ethics in research and care of human patients. The role of bioethics is relevant to reproductive screening, policy formation, public regulation, and law. Provides foundation in traditional ethics, consideration of subcategories of bioethics, neuroethics, and eugenics, and how to apply ethics to contemporary issues in research and technology. P/NP or letter grading.

70. Genetic Engineering and Society. (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, culture, law, and society. Emphasis on genetic engineering history and foundations to generate discussion on its use in society. P/NP or letter grading.

100. Introduction to Cell Biology. (Lecture, two hours; laboratory, eight hours. Requisites: Life Sciences 3, 4, 23L, or 7A, 7B, 7C, 23L, and 107. Course 104AL is requisite to 104BL. Limited to Molecular, Cell, and Developmental Biology majors or to students with credit for course 165A. Analysis of cell organization, structure, and function at the molecular level. Cell membranes and organelles, membrane transport, cellular signaling, cytokinetics and cell movement, intracellular trafficking, cell energetics. Letter grading.

104AL. Research Immersion Laboratory in Developmental Biology. (Laboratory, two hours; research, four hours; laboratory, 14 hours. Requisites: Life Sciences 3, 4, 23L, or 7A, 7B, 7C, and 107. Course 104AL is requisite to 104BL. Limited to Molecular, Cell, and Developmental Biology majors. Discovery-based research using sea urchins as model systems. Students determine expression of unstudied sea urchin genes using combination of molecular biology and computational techniques. May not be repeated for credit. Letter grading.

110L. Integrative Approach to Discovery in Molecular Cell and Developmental Biology. (Lecture, four hours; research, four hours; laboratory, 14 hours. Requisites: Life Sciences 3, 4, 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 marine chordate Botryluls schlosseri. Evaluation of data through rigorous quantification and bioinformatics techniques using microscopes and databases. Use of graphics and other software for preparation of figures and illustrations for presentations. 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 to be primarily computational in nature whereby students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to produce figures and illustrations for presentations. 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.

120. Introduction to Plant Biology. (Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, and 23L. Not open for credit to Molecular, Cell, and Developmental Biology majors or to students with credit for course 165A. Introduction to plant biology, as well as to concepts and techniques in molecular biology and genetics. Letter grading.

138. Developmental Biology. (Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Development of understanding of fundamental molecular mechanisms and cellular activities guiding formation of complex organism from single fertilized egg. Developmental biology offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Molecular, Cell, and Developmental Biology. Applicants interested in studying with faculty in the department are encouraged to apply to an appropriate graduate program in Graduate Programs in Biology.
of model organisms to understand the conserved nature of development and decisions across animal kingdom, distinct features that lead to diversification of animal shape and form during evolution. Origin and roles of stem and progenitor cells in development and maintenance of specific organ systems. Roles of cell shape change, cell death, proliferation, and migration in generating shape of embryo, organs, and tissues. Mechanisms by which cells become different from one another to contribute their specific functions. Understanding how to regenerate these organs and tissues.

C141. Molecular Basis of Plant Differentiation and Development. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. In-depth study of basic principles of growth differentiation and development in plants. Emphasis on inheritance patterns and regulation of developmental processes. Discussion of variety of plant systems, with focus on developing critical understanding of current experimental basis of research in this field. Concurrently scheduled with course C239. Letter grading.


143. Developmental Biology: Genetic Control of Organogenesis. (5) Lecture, three hours; discussion, one hour. Requisites: course 138, Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Cellular and molecular basis of animal embryology, with primary emphasis on vertebrate organ development, but including pertinent material from Drosophila and other invertebrate model organisms. Letter grading.

144. Molecular Biology of Cellular Processes. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Course designed to acquaint students with current literature in the field of developmental biology. Introduction to molecular processes in cells and from theoretical applied perspective for using molecular biology as laboratory tool. Special emphasis on molecular mechanisms that relate to formation and function of tissues. Understanding of experimental approaches. P/NP or letter grading.

146. Metabolism and Disease. (5) Lecture, three hours; discussion, one hour. Requisites: course 165A, and Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Distribution of cellular metabolism to the different cell types. 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.

C150. Plant Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Most people think of plants as static organisms, yet they live in a world of symbiosis and community. Plants change atmospheric 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 a deeper level, scientists and economists now recognize that beyond obvious need to grow above-ground biomass for fuel production, we must understand how to make that biomass in sustainable manner. With food systems and land use in mind, current experimental basis of research in this field. Letter grading.

150AL. Research Immersion Laboratory in Plant-Microbe Ecology. (5) Laboratory, four hours. Enforced requisite: course C150. Course 150AL is enforced requisite to 150BL. Letter grading.


155. Molecular Genetic Methods. (4) Lecture, two hours; discussion, one hour; laboratory, six hours. Recommended preparation: course 104AL. Designed for and limited to Molecular, Cell, and Developmental Biology majors for priority pass and first pass. Gene mapping and detection and analysis of gene variants by means of inheritance patterns. Letter grading.

CM156. Human Genetics and Genomics. (5) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4, and 23L. Application of genetic principles to human populations, with emphasis on genomics, family studies, positions, cloning, and mendelian diseases, cancer genetics, animal models, cyto genetics, pharmacogenetics, population genetics, and genetic counseling. Lectures and readings in literature, with focus on current methods of medical and human genetics and methodology to approach such questions. Concurrently scheduled with course CM256. Letter grading.

162. Genetic Control of Animal Behavior. (5) Lecture, three hours; discussion, one hour. Enforced requisite: Life Sciences 4, two upper-division molecular, cell, and developmental biology or neuroscience courses. How do worms decide whether something is light or dark? What makes flies 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 fish, invertebrates, insects, and mammals, are emergent properties of neu rocircuits that together form neural circuits. Understanding how these circuits function is unifying goal of neurobiology. Physiological techniques have been used in past to investigate neural circuits. Scientists now ask how genes make neural circuits work and use variety of cutting-edge genetic and molecular techniques. Survey of recent primary literature that applies these approaches to the model. Investigation of essential genes encoding those components. Emphasis on understanding of experimental approaches. P/NP or 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 is study of complete repertoire of molecules in cells. Topics include human and yeast genomes and genetic approaches to study of function of individual genes, fundamental bioinformatics algorithms used to study relationships between nucleotide and protein sequences of their evolution, use of microarray technologies to measure changes in gene expression, analysis of microarray data including clustering and promoter analysis, proteomics topics including interactions and interac tions, epigenomic study of DNA methylation and chromatin modification, and systems biology, or computational approaches to integrating varied genomic data to provide more complete understanding of cellular biology. 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 1BH or SCI 5 or 6B. Not open for credit to students with credit for Physiology Sciences 111A. For Neuroscience and Physiological Science majors, grade of C– or better is required to proceed to Neuroscience M101B or Physiological Science 111B. Neurophysiology, molecular mechanisms, action potentials, and synaptic transmission. Sensory systems and motor system; how assemblies of neurons process complex information and control movement. P/NP or letter grading.

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 must have grade of C– or better) or Physiological Science 111A or Psychology 115, Life Sciences 3 and 4 (may be taken concurrently), or 7C. Molecular biology of chromosomes and receptors, focus on voltage dependent channels and neurotransmitter receptors. Molecular biology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, and muscle. Classics and 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: courses M101A or Psychology M117A; Neuroscience majors must have grade of C– or better) or Physiological Science 111A or Psychology 115, Life Sciences 3 and 4 (may be taken concurrently), or 7C. Scientific analysis and communication skills, and full appreciation of process of doing science; writing, diverse approaches to research, and project responsibilities and ownership. Acquisition of in-depth and broad knowledge about student research projects, research and written communication skills, and full appreciation of process of doing good science and becoming skilled researchers. Letter grading.

180A. Scientific Analysis and Communication I. (2) Seminar, two hours. Enforced corequisite: course 196A. Students read and discuss scientific articles and give presentations on original research being conducted using relevant primary literature. Critical aspects of research process, including record keeping, ethics, laboratory safety, mathematics, and scientific writing, diverse approaches to research, and project responsibilities and ownership. Acquisition of in-depth and broad knowledge about student research projects, research and written communication skills, and full appreciation of process of doing good science and becoming skilled researchers. Letter grading.

180B. Scientific Analysis and Communication II. (2) Seminar; two hours. Enforced corequisite: courses 180A, 196A. Enforced corequisite: course 196B. Students give presentations similar to laboratory meeting or research symposium talk in which speakers discuss projects, logical approaches, results, and conclusions. How to write research papers as well as prepare and present scientific posters. Production of deliverables that demonstrate research achievements and creation of sense of pride for work accomplished as skilled researchers. Letter grading.

M181. Biological Bases of Psychiatric Disorders. (4) (Same as Neuroscience M130, Physiological Science M145, Psychiatry M181, and Psychology M117J) Lecture, three hours. Requisites: course M175A (or Neuroscience M101A or Physiological Science M180A, or Psychology M117A; Neuroscience majors must have grade of C– or better) or Psychophysiology 111A or Psychological Science 111A. An introduction to psychiatric and neurological disorders, including schizophrenia, depression, bipolar disorder, obsessive-compulsive disorder. Provides a more sophisticated understanding of brain dysfunctions that contribute to disorders and rationales for pharmacological treatments. P/NP or letter grading.

187AL. Research Immersion Laboratory in Genomic Biology. (5) Lecture, one hour; laboratory, six hours; research group meeting, two hours. Requisites: Life Sciences 4 or 107, 23L. Course 187AL is requisite to 187BL. Limited to Molecular, Cell, and Developmental Biology majors. Introduction to cutting-edge genomic technologies and bioinformatics methods and resources for genome annotation. Students propose original research projects related to gene annotation and drive their projects using bioinformatics tools. Latest assembly of DNA and RNA from Chlamydomonas reinhardtii, algae organism that has limited genome annotation information available, to be provided. May not be repeated for credit. Letter grading.

187BL. Advanced Research Analysis in Genomic Biology. (4) Laboratory, six hours. Enforced requisite: course 187AL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Microbial Genetics majors. Continuation, completion, and refinement of research on annotation of sequenced eukaryotic genome of unicellular green alga Chlamydomonas reinhardtii to be primary research. In nature when students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, 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. Final report describing entire research project required. Letter grading.

188. Special Courses in Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. Departmental interest. May be repeated for credit with topic change. Letter grading.

189. Advanced Honors Seminars. (2) Seminar; three hours. Enforced requisite: course 190A or 196A; for Psychological Science M180A or Psychology M117A; Neuroscience majors must have grade of C– or better) or Psychological Science 111A or Psychology 115. Directed research course to be taken in conjunction with 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. Design and present a research topic as part of an independent study with lecture course instructor to explore topics in greater depth through supplemental readings of scientific literature. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190A-190B-190C. Joint Research Colloquium. (1–1–1) Seminar, two hours. Enforced prerequisite: course 190A or 196A or 198B or 199 or 199A or 199B. Limited to juniors/seniors. Designed to bring together students undertaking supervised tutorial research in molecular systems. Lecture, laboratory meeting/seminar setup with one or more departmental faculty members whose laboratories are working on similar or related model systems. Discussion and presentation of student work related in discipline to encourage more sophisticated understanding of most current topics in research fields of students or fields using related model organisms. P/NP or letter grading. 190A. Plant Model Systems; 190B. Invertebrate Model Systems; 190C. Vertebrate Model Systems.

191. Variable Topics Research Seminars: Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. Designed for junior/senior departmental majors. Required for students with strong commitment to pursue graduate studies in molecular, biochemical, physiological, and biomedical fields. Weekly variable topics course meeting, discussion, and presentation of paper selected from current literature. May be repeated once for credit. P/NP or letter grading.

192A. Undergraduate Practicum in Molecular, Cell, and Developmental Biology. (3) Seminar, three hours. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs under guidance of faculty members in small course settings. Consult Undergraduate Office for further information. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. May be repeated once for credit. P/NP or letter grading.

192B. Undergraduate Practicum: CityLab. (2) Seminar, two hours. Limited to juniors/seniors in any life sciences major. CityLab training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs under guidance of faculty members in small course settings. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. May be repeated once for credit. P/NP or letter grading.

192C. Undergraduate Practicum: Molecular, Cell and Developmental Biology. (1) Seminar, two hours. Enforced prerequisite: course 198A or 198B or 198C or 199A or 199B or 199C. Limited to juniors/seniors. Development of in-depth understanding and ability to discuss current literature in field of students own research. May be repeated for credit. P/NP grading.

194A. Research Group Seminars: Molecular, Cell, and Developmental Biology. (1) Seminar, two hours. Enforced prerequisite: course 198A or 198B or 198C or 199A or 199B or 199C. Limited to juniors/seniors. Involvement in laboratory’s weekly research group meeting to encourage student participation in research and to stimulate progress in specific research areas. Discussion of use of specific research methods and current literature in field or of research of faculty members or students. May be repeated for credit. P/NP or letter grading.

194B. Research Group Seminars: Current Topics in Biomedical Sciences. (2) Seminar, two hours. Limited to juniors/seniors in research traineeships or those who have strong commitment to pursue graduate studies in molecular, biochemical, physiological, or biomedical fields. Weekly presentation and discussion of paper selected from current literature. May be repeated for credit. Letter grading.

196A. Research Apprenticeship I in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Enforced requisite: life sciences 3, 4, 3.0 premajor and/or major grade-point average, and at least junior standing. Directed research training in laboratory in which 196A research is to be conducted. Enforced corequisite: course 190A. Course 196A is requisite to 196B. Designed for undergraduate students who are interested in a hypothesis-driven research experience in laboratory of departmental or preapproved faculty mentor. Guided research course to be taken in conjunction with course 196B. May be repeated for credit. P/NP or letter grading.

196B. Research Apprenticeship II in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Enforced requisite: life sciences 3, 4, 3.0 premajor and/or major grade-point average, and at least junior standing. Directed research training in laboratory in which 196A research is to be conducted. Enforced corequisite: course 190A. Course 196A is requisite to 196B. Designed for undergraduate students who are interested in a hypothesis-driven research experience in laboratory of departmental or preapproved faculty mentor. Guided research course to be taken in conjunction with course 196A. May be repeated for credit. P/NP or letter grading.
196B. Research Apprenticeship II in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Enforced requisites: courses 180A, 196A. Enforced corequisite: course 180B. Technical aspects vary depending on specific laboratory; however, all students are required to learn basic wet lab techniques in 196A and continue same experimental scope proposed, but with additional degree of independence in technical and intellectual aspects of research. Letter grading.

198A-198D. Honors Research in Molecular, Cell, and Developmental Biology. (4 each) Tutorial, 12 hours. Requisites: Life Sciences 3, 4. Course 198A is required prior to or concurrent with 198B. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Development and completion of comprehensive research project and honors thesis under direct supervision of approved faculty member to broaden and deepen students’ knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least three terms and for total of 12 units, individual contract required. In Progress (198A) and letter (198B) grading. Report on progress must be presented to undergraduate adviser each term 198 course is taken. Letter (198C, 198D) grading.

199. Special Studies Directed Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Preparation: submission of written proposal to department for approval by appropriate term deadline. Research problem developed in consultation with instructor, outlining research study to be undertaken. Requisites: Life Sciences 3, 4. Limited to juniors/seniors. Department majors may enroll with sponsorship from department faculty members or preapproved outside faculty members. Other junior/senior life sciences majors may enroll only with department faculty sponsors. Supervised individual research under guidance of faculty mentor. Studies to involve laboratory research, not literature surveys or library research. 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.

199A-199D. Directed Research in Molecular, Cell, and Developmental Biology. (4 each) Tutorial, 12 hours. Preparation: minimum 3.0 grade-point average in major. Requisites: Life Sciences 3, 4. Course 199A is requisite to 199B, which is requisite to 199C, which is requisite to 199D. Limited to juniors/seniors. Department majors may enroll with sponsorship from department faculty members or preapproved outside faculty members. Other junior/senior life sciences majors may enroll only with department faculty sponsors. Supervised individual research under guidance of faculty mentor. Studies to involve laboratory research, not literature surveys or library research. 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 Courses


224. Molecular Basis of Vascular Biology. (4) Lecture, four hours. Requisites: Life Sciences 3, 4. Developmental and pathological aspects of vascular biology. Presentation and discussion of key questions of vascular biology with mechanistic viewpoint. Major emphasis on experimental approaches and current research in field. Introduction to several model systems along with presentation of specific topic. Basic information provided as to how this knowledge is obtained in laboratory using variety of experimental approaches and model organisms. Letter grading.


254. Seminar: Plant Morphogenesis. (2 Seminar, two hours. S/U or letter grading.

255. RNA Editing. (4) Lecture, two hours; discussion, one hour. Preparation: knowledge of molecular biology and molecular genetics. Discussion of diverse set of novel RNA modification phenomena known as RNA editing. Topics include U insertion/deletion type of editing in trypanosome mitochondria, C to U substitution editing in apo B mRNA and plant mitochondria etc. Discussion of mechanism, function, and evolution of these phenomena. S/U grading.

CM256. Human Genetics and Genomics. (5) Same as Microbiology CM256. Lecture, three hours; discussion, two hours. Requisites: courses 3, 4, 23L. Application of genetic principles in human populations, with emphasis on genetics, family studies, positional cloning, Mendelian and common diseases, bioinformatics, animal genetics, cancer genetics, 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.

269A-269B-269C. Seminars: Development, Stem Cells, and Disease Mechanisms. (2 Seminar, two hours. Limited to graduate students. Advanced courses based on research papers on fundamental cellular mechanisms governing development and disease. Disease results from genetically determined or acquired deficits in cell and molecular processes; analysis of these processes in context of normal development.

CM272. Stem Cell Biology and Regenerative Medicine. (4) (Same as Pathology CM272.) Lecture, two hours; discussion, two hours. Designed for graduate students. Presentation of range of embryonic and adult stem cells and factors that regulate their growth and development. Major emphasis on how advances in cell and molecular biology and tissue engineering can be used in the use of stem cells in regenerative medicine. Bioethical and legal issues related to stem cell research. S/U or letter grading.

276. Seminar: Molecular Genetics. (2 Seminar, two hours. Topics vary each term. S/U or letter grading.

277. Seminar: Genetics. (2 Seminar, two hours. S/U or letter grading.

278. Seminar: Molecular Genetics of Development. (2 Seminar, two hours. Designed for graduate students. Presentation of range of embryonic and adult stem cells and factors that regulate their growth and development. Major emphasis on how advances in cell and molecular biology and tissue engineering can be used in the use of stem cells in regenerative medicine. Bioethical and legal issues related to stem cell research. S/U or letter grading.

287. Seminar: Molecular Genetics. (2 Seminar, two hours. Topics vary from year to year, with focus on establishment of position and pattern during embryogenesis by interaction of signal transduction systems and transcription factors. S/U or letter grading.


289. Seminar: Topics in Cell Biology. (2 Seminar, two hours. Discussion of various topics on biology of eukaryotic cells. Topics vary from year to year and include: bioenergetics, motility, intracellular DNA, membrane structure and function, oncogenic transformation, nuclear organization and function. S/U or letter grading.

Molecular, Cell, and Developmental Biology / 553
Molecular, Cellular, and Integrative Physiology

Interdepartmental Program
College of Letters and Science and David Geffen School of Medicine

328 HERSHEY HALL
Box 957246
Los Angeles, CA 90095-7246

MOLECULAR, CELLULAR, AND INTEGRATIVE 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 principles, and of functional specializations of organisms that have evolved under the influence of differing selective forces. Thus, physiology contributes importantly to advances in knowledge both in the basic biological sciences and in biomedical sciences and provides an essential foundation for the practice of medicine.

The primary objective of the interdepartmental Molecular, Cellular, and Integrative Physiology Program is to train a new generation of physiologists who apply modern knowledge in molecular, cellular and developmental biology, including workshops, seminars, apprentice teaching, and peer observation. S/U grading.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate 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 12) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of a faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Graduate Courses

214. Research Grant Writing in Biomedical Sciences. (4) Lecture, three hours. Designed for Molecular, Cellular, and Integrative Physiology program students. Training in designing, writing, and evaluating research project and fellowship grants. How grant applications are structured and what features contribute to grant application success. How individual research project grants (RO1) and exploratory/development research grants (R21) to National Institutes of Health (NIH) are structured and differ. How applications for predoctoral fellowships from NIH (F31) and American Heart Association (AHA) are organized. Development and writing of students’ own RO1, R21, F31, or AHA grant application. Letter grading.


249. Seminar: Pathogenic Mechanisms in Muscle Disease. (2) Seminar, two hours. Recent advances have been made in genetic identification of 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, Ulrich myopathy, and other forms of genetically inherited muscle disease. S/U grading.
598. Research for PhD Dissertation, (2 to 10) Tutorial, to be arranged. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

**Molecular Toxicology Interdepartmental Program**

**Jonathan and Karin Fielding School of Public Health**

56-070 Center for Health Sciences Box 951772
Los Angeles, CA 90095-1772

**Molecular Toxicology**

310-206-1619

E-mail contact

Oliver Hankinson, PhD, Chair

**Faculty Committee**

Jesús A. Araujo, MD, PhD (Environmental Health Sciences, Medicine)
Michael D. Collins, PhD (Environmental Health Sciences)
Oliver Hankinson, PhD (Pathology and Laboratory Medicine)
David E. Krantz, MD, PhD (Psychiatry and Biobehavioral Sciences)
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 has now been widely accepted that understanding mechanisms will provide the means for accurately determining risk.

New chemicals have been the basis for most of the technological developments during the past century, and there is no question that society has reaped enormous benefits from the creation and growth of the chemical industry. However, major health and environmental problems have also been the legacy of the synthesis of new chemical species. The disciplines 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 toxin action, predict the toxicity of new chemical entities, and protect organisms from them. Toxicology has used the basic disciplines of chemistry, biochemistry, and cell biology to advance understanding of toxicological phenomena, and the growth of the sophistication of toxicology has paralleled the increase in knowledge derived from the basic chemical and biological sciences.

**Graduate Study**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degree**

The Molecular Toxicology Program offers the Doctor of Philosophy (PhD) degree in Molecular Toxicology.

**Molecular Toxicology Lower-Division Courses**

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (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**

M110A. Drugs: Mechanisms, Uses, and Misuse. (4) (Same as Pharmacology M110A.) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisite: 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.

197. Individual Studies in Molecular Toxicology. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

**Graduate Courses**

211A-211B-211C. Molecular Toxicology Seminars. (1–1–1) Seminar, one hour twice per month, Seminar series which alternately features outside speakers and members of UCLA molecular toxicology community (students, postdoctoral fellows, and faculty) and deals with topics relevant to molecular toxicology. 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...

**M247. Advanced Concepts in Gene-Environment Interactions.** (4) Same as Environmental Health Sciences M241. Lecture, three hours; discussion, one hour. Comprehensive and practical examination of emerging science of gene-environment interaction. Discussion of primary components of field, including role of metabolic pathways in modifying environmental responses and importance of environmental influences in human disease. Exploration of selected hot topics in field, such as importance of epigenetics and of microbiome. S/U or letter grading.

**296A–296G. Research Topics in Molecular Toxicology.** (2 each) 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: 296A, Chemical Toxicology, 296B, Molecular Carcinogenesis, 296C, Teratogenesis, 296D, Molecular Topics in Boron Biology, 296E, Germ Cell Cytogenetic/Genetic Biomarkers, 296F, Genetic Toxicology, 296G, Laboratory Analysis.

**375. Teaching Apprentice Practicum.** (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

**596. Directed Individual Study or Research.** (2 to 12) Tutorial, to be arranged. Individual guided studies under direct faculty supervision. May not be applied toward degree course requirements. May be repeated for credit. S/U or letter grading.

**597. Preparation for PhD Qualifying Examinations.** (2 to 12) Tutorial, four hours. May not be applied toward degree course requirements. May be repeated for credit. S/U grading.

**599. PhD Dissertation Research.** (8 to 12) Tutorial, to be arranged. May not be applied toward degree course requirements. May be repeated for credit. S/U grading.

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**MUSIC**

**Herb Alpert School of Music**

2539 Schoenberg Music Building
Box 951616
Los Angeles, CA 90095-1616

**Music**

310-825-4761

Travis J. Cross, DMA, Chair

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Roger Bourland, PhD
Paul S. Chihara, PhD
Maurice Gerow, PhD
Frederick P. Harrison, PhD
Mark Kaplan, BA
D. Thomas Lee, DMA
Susan K. McClary, PhD
Donald Neuen, MA
Paul V. Reale, PhD
Jon Robertson, DMA
Guillaume B. Sutre, MM
Robert Waizer, PhD

**Assistant Professors**

Jocelyn H. Ho, DMA
Kay K. Rhiie, DMA

**Senior Lecturers SOE**

John L. Hall, MM, Emeritus
Sheridan W. Stokes, Emeritus

**Lecturer SOE**

Maureen D. Hooper, EdD, Emerita

**Lecturers**

David A. Brennan, DMA
Bruce H. Broughton
Raynor O. Carroll
Jonathan D. Davis, DMA
Theresa A. Dimond, DMA
Margaret M. Flanagan Lysy
Aubrey D. Foard, MM
Peter R. Golub, PhD
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Hitomi M. Oba, MA
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Jean-Louis Rodrigue
Peter Rutenberg
Amy M. Sanchez, MM
Andrew A. Schnurr, PhD
John A. Steinmetz, MA

**Adjunct Professors**

Christoph Bull, DMA
Mark C. Carlson, PhD
Gloria C. Cheng
Don E. Franzen
Herbert J. Hancock
Christopher Hanulik, BM
Jennifer Judkins, PhD
Douglas H. Masek, DMA
Wayne Shorter
Peter F. Yates, DMA

**Scope and Objectives**

The Department of Music offers undergraduate and graduate training in Western classical music, with concentrations in composition and performance, and a specialized undergraduate program in music education. Jazz performance is also offered at the graduate level. The department is aligned with the Departments of Ethnomusicology and Musicology and aspires to promote productive collaboration between performance and scholarship, a cross-cultural global understanding of the art of music, and preparatory training for a broad range of careers in music after students graduate.

The four-year Bachelor of Arts curriculum in Music is a classically oriented, balanced program of practical, theoretical, and historical studies, with related performance and academic studies in non-Western music. The major, designed for students who want to combine fine musicianship with academic excellence, is based on a core curriculum of theory, history, analysis, and individual and group performance. Given in the context of a liberal education, this offers a foundation for an academic or professional career and affords valuable cultural background.

In addition to these foundational music studies, the four-year Bachelor of Arts curriculum in Music Education offers preparation in pedagogical skills and innovative insights into theories and practice, essential to teach music to the diverse student population of California and to provide administrative leadership in 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, collaborative piano, 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 major and Music Education major are designated capstone majors. Students learn about the real world with respect to putting on concerts. Through preparation for and execution of their senior recitals, students demonstrate a level of proficiency appropriate for their role in the recitals and their understanding of performance practices appropriate to the repertoire being performed, as acquired in previous coursework and through research. Students also display their ability to assemble an effective program in terms of pacing and variety and demonstrate requisite stage presence along with an ability to communicate with their audience in performance.

**Music BA**

**Capstone Major**

**Learning Outcomes**

The Music major has the following learning outcomes:

- Proficiency appropriate for role in the recital
- Understanding of performance practices, as acquired through coursework and research, appropriate to the repertory being performed
- Ability to assemble an effective program in terms of pacing and variety
- Requisite stage presence and ability to communicate with audience in performance

**Admission**

For new and change of major applicants, each concentration within the department has its own specific requirements for admission. Applicants to the composition concentration...
must submit a portfolio of compositions prior to the required audition and interview with the composition theory faculty. Applicants to the performance concentration are required to audition in their principal performing medium with members of the performance faculty. Admis- sion to the theory concentration is open only to junior/senior Music majors on the basis of an interview with the composition theory 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.

Composition: 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 65, 6 units from course 66, and two years (12 units) of performance organizations utilizing students’ major instruments (courses C90A through 90N and C90Q through 90S), as assigned by the chair or designated faculty member. 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.

Performance: 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 65, and two years (12 units) of performance organizations utilizing students’ major instruments (courses C90A through 90N and C90Q through 90S), 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 for all concentrations:*** Music 120A, 120B, 120C, 140A, 140B, 140C, with grades of C or better, and courses selected from one of the concentrations listed below.

Composition: A minimum of 37 upper-division units, including Music 104A or 104B, 106A, 106B, 116, 166 (12 units), C176, and at least 4 elective units selected from any upper-division ethnomusicology, music, or musicology courses. A capstone senior recital, to be pre- ceded by one capstone scoring course (Music 124A or 124B or 124C) and to include at least 30 minutes of original music, is also required (exceptions by petition only).

Performance: Twelve units in performance in- struction from Music 160A through 165 (includ- ing junior and senior recital requirements), 4 units of chamber ensembles (course C175) for instrumental performance students, 4 units of course C15B for vocal performance students, and 8 electives (units selected from any upper-division ethnomusicology, music, or musicology courses. During each term in which stu- dents take private lessons, they must partici- pate in a performance organization for a letter grade, utilizing their major instruments (courses C90A through 90N and C90Q through 90S), as assigned by the chair or designated faculty member.

Theory: Six courses selected in consultation with a faculty adviser.

**Music Education BA**

**Capstone Major**

**Learning Outcomes**

The Music Education major has the following learning outcomes:

- Demonstrated artistic proficiency on a pri- mary instrument or in voice
- Demonstrated excellent aural musicianship skills and a working knowledge of music the- ory and music history
- Demonstrated knowledge of a varied repertory of music that includes Western, non- Western, and popular musical genres
- Pedagogical skills, assessment strategies, and musical leadership abilities in classroom, instrumental, and choral settings
- Demonstrated basic skills in secondary per- formance areas and music technology
- Identification and description of major concepts and theories of educational psychology
- Flexibility necessary to teach music in tradi- tional and non-traditional settings

**Admission**

Applicants are required to audition in their pri- mary performance medium and interview with the music education faculty.

**Preparation for the Major**

All entering freshmen are required to take the Music Theory Assessment Examination either during New Student Orientation or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A. Entering transfer students 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 65, and three years (18 units) of performance organizations utilizing students’ major instruments (courses C90A through 90N and C90Q through 90S), as assigned by the chair or designated faculty member. 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.

**Graduate Study**

Official, specific degree requirements are de- tailed 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), Candi- date in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Music.

**Music**

**Lower-Division Courses**

**1A–1B. Fundamentals of Music.** (4–4) Lecture, three hours; discussion, two hours. Designed for nonmusic majors. P/NP or letter grading. 1A. Introduction to ele- ments of music: pitch and rhythm symbols, meter and time signatures, notation, scales, intervals, and chord structure. 1B. Requisite: course 1A. Diatonic har- mony; four-part writing, including inversions, sev- enthts, secondary dominants, and modulation; organi- zation of melody and accompaniment; simple anal- ysis; sight-singing and ear training.

**3. Preparatory Music Theory.** (4) Lecture, four hours; laboratory, one hour. Course in music funda- mentals, including musicianship, theory, and termi- nology. Letter grading.

**4A–4B–4C. Basic Musicianship.** (2–2–2) Studio, three hours. Class instruction in elementary ear training and keyboard skills. P/NP or letter grading.

**5. Beginning Voice Class.** (2) Studio, four hours; outside practice and preparation, two hours. Not open to voice majors. Correct singing techniques, in- cluding vocal mechanism, posture and breathing, mu- sical warm-ups, optimal vocal production, diction, and performance delivery to be put into practice in classroom study, vocal exercises, and performances. Final recital with piano accompaniment required. May be repeated for maximum of 12 units with a grade of C in each course. Letter grading.

M6A-M6B-M6C. Introduction to Musicology. (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 musicology through in-depth exploration of basic common musical elements and training in aural recog- nition, sight-singing, dictation, and keyboard skills. Focus on topics such as tonal and modal harmony, rhythm, improvisation, composition, notation, and ear training to prepare students for later theory courses, participation in music ensembles, advanced study in music, and professional careers. Letter grading.

**7. 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.

8G. Graduate Piano Sight-Reading. (2) Studio, two hours. Limited to graduate students. Designed to help entering graduate students remedy entrance deficiencies, to be cleared by examination. May be repeated. SU 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, performers, and composers. Relationship of listening to history, aesthetics, musical, and cultural frameworks. Music as aesthetic experience and cultural practice. P/NP or letter grading.


19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members. Introduces and illuminates many paths of discovery at UCLA. P/NP or letter grading.

20A. Music Theory I. (3) Lecture, four hours. Preparation: passing score on departmental examination. Course 20A is enforced requisite to 20B, which is enforced requisite to all other music courses. Students are advised to complete all years of the Basic Music Theory course sequence in their freshman year. Theory: species counterpoint through fifth species; description of triads and inversions. P/NP or letter grading.

20B. Music Theory II. (4) Lecture, four hours. Enforced requisite: course 20A with grade of C or better. Theory: diatonic harmony through secondary dominants and diminished sevenths; modulations to dominant and relative keys; writing of four-part chorales; style composition in baroque dance forms; introduction to figured bass notation. P/NP or letter grading.

20C. Music Theory III. (4) 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.


60A-65. Undergraduate Instruction in Performance. (2) Each) Studio, one hour. Limited to Music majors (all freshman/sophomore majors, and junior/senior majors not in performance specialization). Individual instruction. Students must perform in one practicum during academic year. Grades are assigned by applied music faculty; pass/fail in Fall and Winter Quarters and by jury examination in Spring Quarter. May be repeated for credit. P/NP or letter grading. 60A. Violin. 60B. Viola. 60C. Cello. 60D. String Bass. 60E. Harp. 60F. Classical Guitar. 60G. Viola da gamba. 60H. Lute. 61A. Flute. 61B. Oboe. 61C. Clarinet. 61D. Bassoon. 61E. Saxophone. 62A. Trumpet. 62B. French Horn. 62C. Trombone. 62D. Tubas. 62E. Percussion. 64A. Piano. 64B. Organ. 64C. Harpsichord. 64D. Voice.

66. Undergraduate Instruction for Composition Specialists. (2) Studio, one hour per week to be arranged with instructor; outside study, five hours. Enforced requisite: 20B, 20C. Limited to music composition students and designed for sophomores. One-on-one composition lessons with assignments and compositions tailored to student progress and level. Individualized assignments 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) 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) symbols, and basic overview of technical issues of translation. Exploration of variety of vocal repertoire, including opera, art songs, early music, recitative, and folk songs. Transcription, translation, spelling, and practice and notation pieces assigned in course, as well as from repertoire being prepared for juries. P/NP or letter grading. 74A. English and Italian. Introduction to basics of singing diction and development of German skills for beginning students. P/NP or letter grading. 74B. German. Enforced requisite: course 74A. Introduction to basics of singing diction and development of German skills for beginning students. 74C. French. Enforced requisite: course 74B. Introduction to basics of singing diction and development of French skills for beginning students.

80A. Beginning Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Simple keyboard skills together with basic aspects of music theory and its practical application to keyboard: sight-reading, tonality, chords, scales, cadences, simple compositions, and improvisation. No credit without enrollment. Offered in summer only. P/NP or letter grading.

80B. Intermediate Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Enforced requisite: course 80A. Review of basic keyboard concepts, with focus on developing comprehensive keyboard musicianship ranging from music theory, sight-reading, composing, improvising, analysis of form, study of musical terms and notation, chords, scales, cadences, transposing, and ear training. Offered in summer only. P/NP or letter grading.

80C. Sight Singing and Ear Training. (4) Laboratory, four hours; preparation/practice, seven hours. Fundamentals of translation. Exploration of variety of vocal repertoire and its practical application to keyboard: sight-reading, note reading, composing, improvising, analysis of form, study of musical terms and notation, chords, scales, cadences, transposing, and ear training. Offered in summer only. P/NP or letter grading.

80D. Beginning Guitar Class. (4) Laboratory, five hours; preparation/practice, seven hours. Introduction to guitar techniques, accompanying, and arranging for guitar; coverage of note reading and tablature. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80E. Beginning Saxophone. (4) Laboratory, five hours; preparation/practice, seven hours. Fundamentals of playing saxophone, basic music theory and terminology necessary for reading music notation, and basic overview of instrument's history. Offered in summer only. P/NP or letter grading.

80F. Beginning Guitar Class. (4) Laboratory, five hours; preparation/practice, seven hours. Introduction to guitar techniques, accompanying, and arranging for guitar; coverage of note reading and tablature. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.
Early instruments may be used at instructor's discretion. Group performance of Western vocal and instrument ecology CM90T. Activity, four hours. Preparation: audio and multimedia presentations using tablet (iPad) technology. 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

104A. Modal Counterpoint. (3) Lecture, three hours. Prerequisite: course 120C (accelerated section), in-depth preparation and technical review of counterpoint of 15th and 16th centuries through written and analysis of important forms of period, including species, canon, free counterpoint, cantus, f-Lusus, point counterpoint, fugue, etc. Letter grading.

104B. Special Topics in Counterpoint. (3) Lecture, three hours. Prerequisite: course 120C (accelerated section). In-depth exploration of polyphonic styles and textures since 1750, with emphasis on late-19th and 20th-century modes of expression, through written and analysis. Letter grading.

106A. Orchestration I. (4) Discussion, three hours. Prerequisites: courses 120C (accelerated section), 123C. Scoring and analysis for ensembles and full orchestras. Letter grading.

106B. Orchestration II. (4) Discussion, three hours. Prerequisites: courses 106A, 120A (accelerated section), 123C. Techniques of scoring and orchestration, with exercises in scoring. P/NP or letter grading.

114A. Oboe Reed Making. (1) Activity, one hour; outside study, two to three 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 reed needs. May be repeated for credit. May be concurrently scheduled with course C209A, P/NP or letter grading.

114B. 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 reed needs. May be repeated for credit. May be concurrently scheduled with course C209B, P/NP or letter grading.

110A. Learning Approaches in Music Education. (4) Lecture, two hours; activity, two hours; outside study, eight hours. Enforced prerequisite: course 20A. Introduction to music education by development of concepts, attitudes, and skills necessary to teach music and philosophical, historical, cultural, and psychological foundations of music education, with emphasis on learning theories and psychology of music learning. Contextualization of concepts by engaging in noninstructional modes of music learning, including systematic aural transmission and informal learning. Letter grading.

110B. Musicality and Creativity in Childhood. (4) Lecture, two hours; activity, two hours; outside study, eight hours. Prerequisites: courses 20A, 20B, 20C, 110A, 120A, 123B, 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 to become proficient in providing children with music learning environment that is conducive to optimal growth in their musicality and creativity. Frequent field visits. Letter grading.

110C. Comparative Study of Choral Music Education. (4) Lecture, two hours; activity, one hour; fieldwork, one hour; outside study, eight hours. Enforced prerequisite: courses 20A, 20B, 20C, 110A, 120A, 120B, 120C. Preparation of students for teaching choral music at middle and high school levels. Development and 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 backrounds. Preparation for repertoire 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. (4) Lecture, two hours; activity, one hour; fieldwork, one hour; outside study, eight hours. Enforced prerequisite: courses 20A, 20B, 20C, 110A, 120A, 120B, 120C. Preparation of students to teach instrumental music at middle and high school levels. Development and 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 backrounds. Preparation for repertoire 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.

112. Guided Field Experiences in Music Education. (1) Field studies, three hours. Initial field experiences for students preparing to teach and earn single subject certification in music. Novice teachers work under direct guidance of UCLA music education faculty members and practicing public school instructor to develop and deliver instruction in K-12 settings. P/NP grading.

114A-114B. Study of Instrumental Techniques. (1–2) Studio, three hours. Prerequisites or corequisites: course 20A. Applied studies in basic performance techniques and tutorial materials. Each course may be repeated once for credit. Letter grading. 114A, High Strings; 114B, Low Strings.

114J. Piano Skill in Classroom. (1) Activity, two hours. Prerequisites: courses 20A, 20B, 20C. Development of instrument mastery and concentration in music education. Not open to students enrolled in piano lessons. Development of piano skills and competencies that enable students to function in elementary, instrumental ensemble, and choral ensemble classrooms. Letter grading.

115A-115B. Study of Instrumental Techniques. (2–3) Studio, four hours; outside study, two hours. Prerequisites: courses 110A, 110B, 110C. Preparation of students for teaching instrumental music in elementary schools to ideological or stylistic concepts. May be repeated once for credit. P/NP or letter grading.

115C. Comparative Study of Choral Music Education. (4) Lecture, two hours; activity, two hours; outside study, four hours. Introduction to conducting and practical performance, with emphasis on comprehensive music education through performance. Frequent field visits. Letter grading.

116. Music Theory IV. (4) Lecture, four hours; discussion, four hours. Preparation: passing score on departmental first-year examination. Prerequisite: course 20C with grade of C (2.0) or better. Theory: ba- roque counterpoint including chorale prelude; two-part invention; exposition and first modulation of three-part invention; canonic principles; analysis of in- ventions, canons, and fugues. Musicianist: sight- singing of extended chromatic melodies; advanced harmonic dictation (diatonic and chromatic); keyboard transcription; analysis of melodic modulations; elementary score reading. P/NP or letter grading.

120A. Music Theory V. (4) Lecture, four hours; discussion, four hours. Preparation: passing score on departmental first-year examination. Prerequisite: course 20C with grade of C (2.0) or better. Theory: advanced chromatic harmony including development of harmony from 1850; analytical projects; style composition. Mu- sicianist: advanced score reading; advanced har- monic dictation; preparation for departmental exam- inations. P/NP or letter grading.

120C. Music Theory VI. (4) Lecture, four hours; discussion, two hours; listening, two hours. Prerequisite: course 120B with grade of C (2.0) or better. 20th-cen- tury harmonic language, including nonfunctional har- mony, polychotomy, free atonality, serialism, and mini- malism. P/NP or letter grading.

121. Special Topics in 20th-Century Music. (4) Lecture, three hours. Prerequisites: courses 20A, 20B, 20C, 120A, 120B, 120C. In-depth study of certain aspects of 20th-century music ranging from individual composers and schools to ideological or stylistic concerns. May be repeated once for credit. P/NP or letter grading.

122. Speculative Music Theory. (4) Discussion, three hours. Prerequisites: courses 20A, 20B, 20C, 120A, 120B, 120C. Techniques of tonal coherence studied through analysis and compositional exercises in styles of given periods. May be repeated once for credit. May be concurrently scheduled with course C222. P/NP or letter grading.

123A-123B-123C. Composition. (4–4–4) Lecture, three hours. Prerequisites: courses 20A, 20B, 20C, 120A, 120B, 120C. Techniques of tonal coherence studied through analysis and compositional exercises in styles of given periods. May be repeated once for credit. May be concurrently scheduled with course C222. P/NP or letter grading.

124B. Scoring for Wind Ensemble. (4) Discussion, three hours. Requisites: courses 106B, 120C (accelerated section), 123C. Practical applications in scoring for large wind ensembles. Preparation and production of score and parts. Major emphasis on orchestration and conductor’s perspective. At least one reading by UCLA Wind Ensemble scheduled. Letter grading.

124C. Scoring and Arranging for Choral Ensemble. (4) Discussion, three hours. Requisites: 106B, 120C (accelerated section), 123C. Practical applications in scoring and arranging for choral ensembles, including setting of text as well as the creation of instrumentation and production of score and parts. At least one reading by UCLA Chorale or other choral group scheduled. Letter grading.

M131. Development of Latin Jazz. (4) (Same as Ethnomusicology M131.) Lecture, four hours: discussion, one hour. Survey of historical and stylistic development of Latin Jazz, as related to its roots in African, Caribbean, and other traditions. Letter or P/NP grading.

M134. Intermediate Western Musical. (4) (Same as Ammen 134 and Ethnomusicology M134.) Lecture, three hours. Some amount of formal music study and experience as vocalist or instrumentalist desirable but not necessary. Discussion of history, tradition, and scope of musical practice of the Americas. Focus on different national traditions and movements, and their impact on modern music. Letter or P/NP grading.

136A-136B-136C. Historical Survey of Western Music. (5–5–5) 140A-140B-140C. History and Analysis of Western Music. (5–5–5) 136A. To 1700. Enforced requisite: course 140A. Lecture, four hours; discussion, one hour. Historical survey of major works from the time of the New World to the Baroque period. Letter or P/NP grading.

136B. 1700 to 1890. Enforced requisite: course 140B. Lecture, four hours; discussion, one hour. Historical survey of major works from the time of the Baroque period to the early 19th century. Letter or P/NP grading.

136C. 1890 to 1975. Enforced requisite: course 140C. Lecture, four hours; discussion, one hour. Historical survey of major works from the time of the early 19th century to the present. Letter or P/NP grading.

140A-140B-140C. History and Analysis of Western Music. (5–5–5) 140A. To 1700. Enforced requisite: course 136A. Lecture, two hours; discussion, one hour. Historical survey of major works from the time of the New World to the Baroque period. Letter or P/NP grading.

140B. 1700 to 1890. Enforced requisite: course 136B. Lecture, two hours; discussion, one hour. Historical survey of major works from the time of the Baroque period to the early 19th century. Letter or P/NP grading.

140C. 1890 to 1975. Enforced requisite: course 136C. Lecture, two hours; discussion, one hour. Historical survey of major works from the time of the early 19th century to the present. Letter or P/NP grading.

C167. Selected Topics in Keyboard Literature. (2) Lecture, two hours. Enforced requisite: course 140A. Lecture, two hours; discussion, one hour. Historical survey of major works from the time of the New World to the Baroque period. Letter or P/NP grading.

C175. Chamber Ensembles. (2, 4) Activity, two to four hours. Preparation of works must have at least one hour of level of their instrument to participate. Applied study of performance practices of secondary literature appropriate to ensembles. Students may enroll in two sections per term; total of up to four courses may be applied toward degree requirements. May be concurrently scheduled with course C267. Letter or P/NP grading.

C176. Vocal Diction. (2) Activity, two hours; studio, four hours. Studying musical style and character of language as applied to singing, including use of International Phonetic Alphabet, translation of art song texts, and application to student’s current vocal repertory. Background in each language encouraged. Letter or P/NP grading.

C177. Electronic Music Composition. (4) Lecture, three hours; laboratory, three hours. Preparation: advanced course in electronic music, composition, or music theory. Exercise in electroacoustic composition, metapitch composition, notation software (Sibelius), sequencing and film scoring software (Logic), text collages (ProTools), and final project. May be concurrently scheduled with course C265. Letter or P/NP grading.

C182. Music Industry. (4) (Same as Ethnomusicology CM182.) Music Business. (4) Lecture, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Music History 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 radio recordings to MTV and popular music today. Concurrently scheduled with course CM282. 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.

194. 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 and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

195. Community or Corporate Internships in Music. (2 or 4) Tutorial, six hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with supervising instructor and submit periodic reports of their work experiences. May be repeated for credit. P/NP or letter grading.

Graduate Courses

M201. Repertory and Analysis. (2) (Same as Musicology M201.) Seminar, two hours. Enforced requisite: Musicology M200A. Exploration of defined repertory through readings and analysis. Specific topics vary. May be repeated for credit. Letter grading.

202. Analysis for Performers. (4) Lecture, three hours; outside study, nine hours. Designed for graduate music students. Survey of analytical techniques and approaches required for professional performers, including phrase structure, harmonic rhythm and prolongation, small and large-scale strategies, and understanding of styles. Letter grading.

203. Notation and Performance. (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 hours. Enrollment by consent of instructor. Introduction and overview of bassoon reed making, including 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, 124B. Conducting basics, baton technique, beat patterns, 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, vocal-
izing and warm-up techniques, design, direction, and rehearsal and audition techniques. May be repeated once for credit. Concurrently scheduled with course C118B. Letter grading.

C222. Speculative Music Theory. (4) Discussion, three hours. Designed for graduate music students. Techniques and methods of speculative music theory through analysis and compositional exercises in styles of given periods. May be repeated once for credit. Concurrently scheduled with course C122. S/U or letter grading.

C226. Electronic Music Composition. (4) Lecture, three hours; laboratory, three hours; Preparation: advanced experience and accomplishment in serious composition for two years of major study. Designed for graduate students. Limited enrollment. Exercises in electroacoustic orchestration, meta-pitch composition, notation software (Sibelius), sequencing and film scoring software (Logic), text col-lages (ProTools), and final project. May be concurrently scheduled with course C176. S/U or letter grading.


252. Seminar: Composition. (4) Seminar, three hours. Compositional projects for varying acoustic instrumental and vocal ensembles. Students expected to present their work from sketches to at present or present notation files of work-in-progress with playback file, where appropriate. Performance of composers working in graduate composition concerts at UCLA student composers. Letter grading.


254. Advanced Music Analysis: Pre-Tonal Music. (4) Seminar, three hours. Designed to provide graduate composition students with in-depth exposure to complex and rich works of late Middle Ages through early Renaissance. Introduction of analytical techniques and methods not commonly used in analysis of works of tonal and post-tonal periods, and approaches to musical structures used by composers before modern tonal harmonic syntax had fully developed. Letter grading.

255. Advanced Music Analysis: Tonal Music. (4) Seminar, three hours. Discussion of theoretical approaches to and analysis of selected works of composers from the beginning to the turn of the 20th century. Includes approach to and analysis of assigned works using various theoretic approaches discussed and presentation of analyses in class. Letter grading.

256. Advanced Music Analysis: Post-Tonal Music. (4) Seminar, three hours. Designed for graduate music students. Discussion of theoretical approaches to and analysis of selected works of 20th or 21st century. Analysis of assigned pieces using various theoretic approaches discussed and presentation of analyses in class. Letter grading.

260A. Seminar: Composition for Motion Pictures and Television. (6) Seminar, three hours; laboratory, three hours. Practical experience in composing for commercial movies. Difference between underscore and source music and discussion of surrealistic effect when they merge, as in MTV, dream sequences, or montages. Study of three principal areas of film-making: production, reduction (shooting), and postproduction. Examples from classic movies and discussion of their scores. Composition of actual cues for acoustic instruments coordinated to picture to be term project. Selections cue themes for instrumental, 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 film student. Discussion of recent television shows. Composition of one original title song and short cues for someone else's project. An assignment involves an orchestra recording to picture, designed to ap-proximate actual conditions of completing professional Hollywood assignment, from spotting to scoring. Letter grading.

261A-261J. Problems in Performance Practices. (4 each) Seminar, three hours; outside study, nine hours. Limited to graduate performance students. Investigation of current source readings in performance prac-tices as related to period; analytical reports and prac-tical applications in class demonstrations. May be repeated for credit. Letter grading. 261A. Medieval; 261B. Renaissance; 261C. Baroque; 261D. Rococo; 261E. Romantic; 261F. Contemporary; 261J. Jazz.

266. Graduate Instruction for Composition Special-cists. (4) Studio, one hour arranged with instructor; credit toward a Master of Music (compo-sition) students. One-on-one composition lessons, with assignments and compositions tailored to each student's progress and level of achievement, addressing counterpoint, voice-leading, harmonic and melodic construction, orchestration, form, texture, style, notation, and performance feasibility of compo-sitions worked on at 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 or letter grading.

C267. Selected Topics in Keyboard Literature. (2) Lecture, two hours. Examination of 19th and 20th century music for keyboard with emphasis on the complete works of Schumann, Chopin, Debussy and Ravel. Letter grading. 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. Choral Literature; 270F. Instrumental Literature; 270G. General Topics.

CM282. Music Industry. (4) Same as Ethnomusi-coology CM288 and Musicology CM288. Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music in-dustry 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 CM182. Letter grading.

290. Composition Form. (2) Seminar, two hours. Weekly forum to present professional composers of varied styles and junior high and high school music, and film/television, as guest lecturers. Letter grading.

292. Seminar: Special Topics in Music. (4) Seminar, three hours. Exploration of music in through variety of approaches that may include projects, per-formances, readings, discussions, 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, ten hours; discussion, five hours; laboratory, fifteen hours. In- tended for teachers of music, church musicians, and music therapists who have had little or no previous experience with Orff Schulwerk. Introduction to Orff Schulwerk, including history, language of instruction and teaching practices of this approach to music instruc-tion for children. Offered in summer only. S/U or letter grading.

S331A-S331B-S331C. Orff Schulwerk Training Courses. (4–4–4) Lecture, ten hours; discussion, five hours; laboratory, fifteen hours. Includes course 330. Course S331A is requisite to S331B, which is requisite to S331C. In-depth courses in teaching of Orff Schulwerk approach to music instruction for children. Students who successfully complete the course are eligible for certification at that level through American Orff Schulwerk Association. Offered in summer only. S/U or letter grading. S331A. Level I (Beginning); S331B. Level II (Intermediate); S331C. Level III (Ad- vanced).

S341. Conducting for High School and College Band/Wind Ensemble Teachers. (2) Lecture, 25 hours. Comprehensive view of current trends in band/ wind ensemble programs, including personnel, commu-nication, conducting, and rehearsal techniques. Study of new and recently published literature and discussions of administration of band/wind ensemble programs. May be repeated for credit without limita-tion. Offered in summer only. S/U or letter grading.

S342. Contemporary Marching Band. (1) Lecture, 12 hours. Innovative approaches to marching band practice for high school directors and general music teachers, in- cluding creative approaches to choreography. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

343. Effective and Creative String Teaching. (2) Lecture, 24 hours. Comprehensive course for teachers of string classes and string orchestras at ele- mentary, junior high, and high school levels. Topics in- clude development of instructional techniques for vi-o-lin, viola, cello, and bass; critical examination of cur-rent pedagogical materials; and reading sessions of recently published materials for string orchestra. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

343L. Effective and Creative String Teaching Labo-ratory. (1) Laboratory, 12 hours. Exploration of string orchestra, ensemble, and chamber music literature appropriate for elementary, junior high, and high schools. Examination of this literature in reading and discussion sessions. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.


350A. Introduction to Computer-Assisted Instruc-tion of Music. (2) Lecture, three hours; laboratory, two hours. Introduction to instructional uses of com-puters in music classes. Focus on practical information necessary to intelligently purchase and implement microcomputers in schools. Course- work to be experienced and reviewed, jargon defined and illustrated, and real experience obtained. 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 MIDId-based synthesizers under computer control. Explora-tion of available hardware resources allied with vari-ous software sequencing packages. Use of software for computer-based music printing. Hands-on experi-ence. May be repeated for credit without limitation. 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 current approaches, 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 person- nel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-ance and supervision of regular faculty member respon-sible for curriculum and instruction at UCLA. May be repeated for credit. S/U or letter 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
450. Keyboard Skills for Pianists. (2) Activity, two hours; outside study, four hours. Applied music course with focus on necessary skills for piano performance. Areas include sight playing, score reading, transposition, figured bass, harmonization, improvisation, score reduction, and ensemble issues. Concurrently scheduled with C155. 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 studio preparation, weekly rehearsals, regular coaching, and performances 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.

458. Advanced Vocal Repertoire, Diction, and Interpretation. (2) Activity, 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 performance for lessons, juries, recitals, master classes, auditions, and other related activities. Intensive diction study incorporated. Regular coaching with faculty members, weekly performance classes, and rehearsals. Concurrently scheduled with course C155. Letter grading.


469. Instrumental Pedagogy. (4) Lecture, three hours; outside study and preparation, nine hours. Preparation: advanced proficiency on one musical instrument. Designed for graduate music students. Study of art of teaching musical instruments, including methods of teaching, learning process itself, and teaching of musical interpretation. Individualized study of various considerations, such as physical/technical aspects and pedagogical repertoire, peculiar to teaching student’s primary instrument. Letter grading.

470. Opera Studio for Graduate Students. (4) Laboratory, six hours. Designed for graduate students. Performance techniques and repertoire for graduate students in opera. S/U or 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.

477. Gluck Chamber Ensembles. (2) Studio, two hours. Preparation: audition. Advanced chamber ensembles who, after rehearsing and being coached on core amount of repertoire, play in outreach settings around Los Angeles community. May be repeated for credit with permission. Concurrently scheduled with course C177. S/U grading.

480. UCLA Chorale. (2) Activity, four hours. Preparation: audition. Designed for MM and DMA students. Select mixed ensemble of 100 voices performing choral music appropriate for concert choral ensemble, with emphasis on music after 1700. May be repeated for credit without limitation. Concurrently scheduled with course C177. Letter grading.

481. Symphony Orchestra. (2) Activity, four hours. Preparation: audition. Group performance of symphonic literature, as well as orchestral accompaniment for operatic and major choral works. May be repeated for credit without limitation. May be concurrently scheduled with course C90E. Letter grading.


484. Piano/Keyboard Accompanying. (2) 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 student performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for maximum of 12 units. Concurrently scheduled with course C90G. Letter grading.

485. Chamber Ensembles. (2) Activity, two to four hours. Preparation: audition. Students must be at advanced level of their instrument to participate. Applied study of performance practices of literature appropriate to ensembles. Students may enroll in two sections per term; total of 12 units may be applied toward degree requirements. May be concurrently scheduled with course C175. Letter grading.


495. Introductory Practicum for Teaching Apprentices in Music. (2) Weekly two-hour seminar session, 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 DMA degree requirements. May be repeated for credit. S/U or letter grading.
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 lower-division performance or ensemble course selected from Ethnomusicology 91A through 91Z, Music C90A through 90N, or C90Q through M90T 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 Upper-Division Courses (28 units): Music Industry 101, 195 (8 units), and five additional courses (20 units) selected from Ethnomusicology C100, 105, M108B, 117, C169, 172A, C184, Music C176, Musicology 140, 164, 185, Music Industry 102 through 112, 122, M182, 188, 195, 197.

In addition, students who are not enrolled in a major within the Herb Alpert School of Music must demonstrate music theory proficiency by either passing the Music Theory Assessment Examination, completing Music 3 with a minimum grade of C+, or completing an equivalent course in consultation with the minor chair.

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 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 in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

90. Honors Seminars. (1) Seminar, three hours. Limited to students as eligible by petition. Honors seminar 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. 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. Seminar: Music Industry, Technology, and Science. (4) Seminar, four hours; outside study, eight hours. Required of Music Industry minors. Introduction to intellectual and theoretical frameworks that form Music Industry minor and that scholars of music and music technology have developed to analyze, understand, and perhaps judge what happens out there, including how music business works in financial, legal, global, and artistic terms, how music technologies of recording, reproduction, and consumption operate, and how basic music science from acoustics to brain biology to cognitive perception affects how music is produced and heard. Letter grading.

102. Music Business Fundamentals. (4) Seminar, three hours; outside study, nine hours. Introduction to basic economics of creative industries, focusing on units of time and sales for music in U.S. and abroad, how power has shifted but still is held in musical oligopolies, and where career opportunities for musicians and other industry professionals will be in next five to 10 years. Letter grading.

103. Music and Brain. (4) (Formerly numbered 103.) (Same as Neuroscience M170) Seminar, three hours; outside study, nine hours. Multidisciplinary approach to understanding brain mechanisms underlying 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 subdivisions of neuroscience; introduction to fundamental principles in neurophysiology, psychopharmacology, information processing, behavior and the brain, origins and limitations of the tools currently available. 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 and its use in film, television, and new media. Legal relationships in entertainment business and basic business practices. Exploration of legal aspects of process of producing works in entertainment field, such as protections and requirements of copyright (or potential through production and distribution. Letter grading.

104B. Legal and Business Aspects of Sound Recordings. (4) Seminar, three hours; outside study and research, nine hours. Exploration of legal and business aspects of 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, with material covered also relevant to audiovisual recordings. Introductory presentation on contract, copyright, and trademark law as background to step-by-step of acquiring agreements necessary for production and commercial distribution of recordings. Letter grading.

105. Songwriters on Songwriting. (4) Lecture, three hours; outside study, nine hours. With special focus on songwriters of pop, punk era, examination of work of greatest songwriters of post-World War II generation (circa 1952 to 1994) and those they have influenced through creative as well as practical industry guidance from current and noteworthy practitioners. Coverage of songwriting, arrangement and record production, music publishing, and record business in 20th and 21st centuries. Guest music industry professionals participate in individual creative processes and discuss their paths to songwriting and their place in world of music. Course is not workshop or tutorial on how to write songs. Letter grading.

106. Stardom Strategies for Musicians. (4) Lecture, four hours; outside study, eight hours. Help for students to determine what music career best serves their own lives and gives them tools that help them be successful in their lives and careers. Guest speakers, including successful recording artists, publicists, and performers, to be featured. Letter grading.

107A. Audio Technology for Musicians I. (4) Studio, four hours; outside study, eight hours. Equally for singers, using music-related software that makes using samplers, electronic equipment and procedures permissive music making, and ability to understand their logic is key for any musician today. Practical technical aspects of production and software (sequencers, recorders, mixers, microphones, and so on) most commonly used in contemporary music making. Main sound processing types (equalizers, compressors, reverberation), Fundamental aspects of most widespread music production software and hardware. P/NP or letter grading.

107B. Audio Technology for Musicians II. (4) Studio, four hours; outside study, eight hours. Enriches students’ understanding of technology becomes more ingrained and pervasive in creative life of musicians, it is more important than ever to obtain deep understanding of technological music and audio tools, and concepts behind them, that are available. Examination of certain technological elements in greater depth than in course 107A, while applying established concepts to new creative scenarios and applications. Basic familiarization with standard audio workstation software in use in music industry and introduction to foundational theoretical principles of audio equipment, acoustics, mixing, mastering, and sound 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. Examination of process of founding performing arts organizations, beginning with inspiration to do so, clarifying organization mission, and mechanisms of becoming nonprofit corporate status; issues related to finding appropriate venues, developing audience; mechanics, legal and routine, of running arts businesses; establishing relationships with other organizations in field; issues of funding and sustainability. Students create on paper one performing arts organization, including developing mission statement, preparing bylaws, and writing sample grant proposals. Letter grading.

109. Docs that Rock, Docs that Matter. (4) Seminar, three hours. Close look at various genres of rock documentaries and goals, methods, and challenges inherent in making them, with award-winning documentary directors and guest speakers. P/NP grading.

110. Music Business Now. (4) Seminar, three hours. Hands-on introduction to business of music, with emphasis on marketing and media. P/NP or letter grading.

111. Music Supervision. (4) Seminar, three hours. Introduction to role of music supervisor and creative, logistical, and budget considerations of music supervision. Development of theoretical and practical knowledge, interaction with professionals in field, and practice negotiating music requests and clearances. Letter grading.

112. Comprehensive Songwriting. (4) Seminar, four hours; outside study, eight hours. Learning and employment of craft of songwriting. Examination, analysis, and implementation of song structure, lyric and melody writing, arranging, orchestrating, and modern (and primitive) recording techniques. How songwriting has evolved in modern society (since advent of phonograph player/radio), how songs and society affect and reflect one another, and how this informs songs and songwriters. Letter grading.


115. The Art of Music Production. (4) Lecture, three hours; studio, two hours. Exploration of techniques, methods, and process of music production and larger issues in art of making music. Students learn how to foster and capture performance and emotion in music through a variety of media, and including artistic direction in studio and choices made in sound arrangement, and application of technology. Letter grading.

122. Internet Marketing and Branding for Musicians. (4) (Formerly numbered 102) Seminar, four hours; outside study, eight hours. Requisites: courses 101, 102, 104A, or by permission of instructor. Digital world for musicians has changed dramatically. Musi-
Musicology

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Professors Emeriti
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Marie Louise Göllerich, PhD
Richard A. Hudson, PhD

Associate Professors
Shana L. Redmond, PhD
Elizabeth Randell Upton, PhD

Assistant Professor
Jessica A. Schwartz, PhD

Musicology BA
Capstone Major

Learning Outcomes

The Musicology major has the following learning outcomes:

• Demonstrated specific skills and expertise, including research, analysis, writing, and general knowledge of music and music history
• Identification and analysis of appropriate primary sources and musical scores
• Conception and execution of a project that proposes and supports an original argument about a specialized topic
• Working knowledge of scholarly discourse relative to a specialized topic
• Engagement with peers through presentation, discussion, and critique of student work

Admission

The Musicology program assumes that students have some musical background before entering UCLA. Although auditions are not required, prospective majors should be sufficiently competent on an instrument or in voice to participate in a performance group, as required by the program.

Preparation for the Major

Required: Musicology M6A, M6B, M6C, 12W, Music 29A, 20B, 20C, and 6 units (three terms) of performance organizations selected from Ethnomusicology 91A through 91Z, Music 90A through 90Q, Musicology 28A through 28C, CM90T, or Music Industry 111; 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 Place Music 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...
Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable).

Honors Program
The honors program is designed for Musicology majors who wish to carry out an extended independent research project that culminates in a departmental honors thesis of approximately 30 pages. The program gives qualified students the opportunity to work closely with individual professors on an in-depth supervised research and writing project.

All junior and senior Musicology majors who have completed a minimum of four upper-division musicology courses with a departmental grade-point average of 3.7 or better and an overall GPA of 3.0 or better are eligible to apply. Normally, the thesis must be completed during fall quarter of the senior year.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.7 or better in upper-division courses in the department and an overall GPA of 3.0 or better, and (3) complete at least one term of Musicology 198 (2 units) with a grade of A− or better on the resulting thesis.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative GPA of 3.9 or better in upper-division courses in the department and an overall GPA of 3.65 or better, and (3) complete at least one term of Musicology 198 (2 units) with a grade of A or better on the resulting thesis.

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 1642 Schoenborn Music Building. For more information, contact the program adviser, Belén María, at 310-825-4768.

Required Lower-Division Courses (10 units): Two musicology courses with grades of C or better.

Required Upper-Division Courses (21 to 25 units): Musicology 101, one seminar course from 160 through 185 or 191A through 191P, one additional upper-division musicology course, and two additional upper-division ethnomusicology, music, musicology, or music industry courses (minimum 8 units). Enrollment in some courses may be limited; check with the department or instructor. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Musicology offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Musicology.

Musicology
Lower-Division Courses
3. Introduction to Classical Music. (5) (Formerly numbered Music History 3.) Lecture, four hours; discussion, one hour. Survey of music of Western classical tradition, with emphasis on historical context, musical meanings, and creation of tradition itself. P/NP or letter grading.

5. History of Rock and Roll. (5) (Formerly numbered Music History 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 M6A-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. (5) (Formerly numbered Music History 7.) Lecture, four hours; discussion, one hour. History of music and cinema, particularly ways music is used to produce meanings in conjunction with visual image. Credit for both courses 7 and 177 not allowed. P/NP or letter grading.

8. History of Electronic Dance Music. (5) (Formerly numbered Music History 8.) Lecture, four hours; discussion, one hour. Survey of groove-based electrified dance music from its origins in 1960s pop and soul to present, covering disco, house, techno, ambient, rave, and jungle. Emphasis on interaction of technology, musical structures, psychoactive drugs, and club cultures to induce altered states of musical consciousness; promise (versus reality) of political and spiritual transformation; electronic dance music as new art music. P/NP or letter grading.

9. American Popular Song. (5) (Formerly numbered Music History 9.) Lecture, four hours; discussion, one hour. American popular music before advent of rock and roll in 1950s, with special emphasis on song traditions of Tin Pan Alley, P/NP or letter grading.

12W. Writing about Music. (5) (Formerly numbered Music History 12W.) Lecture, four hours; laboratory, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Emphasis on learning specific skills, incorporating technical description, historical contextualization, subjective reaction, and certain stylistic conventions necessary in writing about music. Satisfies Writing II requirement. Letter grading.

13. Punk: Music, History, Subculture. (5) (Formerly numbered Music History 13.) Lecture, four hours; discussion, one hour. Developments in punk music in their historical and subcultural contexts. Survey of punk and musical antecedents in 1960s, rise of punk in 1970s, and tracing of its expressive trajectories to present day. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


35. Introduction to Opera. (5) (Formerly numbered Music History 35.) Lecture, four hours; discussion, one hour. Exploration of history of opera from its origins in Florentine Camerata in Italy in early 17th century, through ages of Enlightenment and Romanticism, and ending with modern era of early 20th century. History of opera, biography of composers and singers, operatic conventions, stage settings, hermeneutics of opera, and musical style, with focus on learning appreciation of music of opera within rich context of its compellng history. P/NP or letter grading.

60. American Musical. (5) (Formerly numbered Music History 60.) Lecture, four hours; discussion, 90 minutes. Survey of American musical in 20th century, beginning with its roots in operetta, vaudeville, and Gilbert and Sullivan, and tracing of its expressive trajectories to punk and hip-hop. P/NP or letter grading.

61. Music in Los Angeles. (5) (Formerly numbered Music History 61.) Lecture, four hours; discussion, one hour. Exploration of history of music in Los Angeles. From Spanish missions and history of Los Angeles to greater emphasis on music in 20th century, with special focus on American émigrés, immigrant 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. (5) (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 in Europe and his reception in Italy. Credit for both courses 62 and 162 not allowed. P/NP or letter grading.

63. Bach. (5) (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. (5) (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 mu-
sional achievements of Motown Records, Stax, and other rhythm and blues, funk, and soul music centers of production. Relationships between musical forms and cultural issues of 1960s, including Civil Rights Movement, counterculture, black nationalism, capitalism, and commodification, and larger dimensions of African American experience as mediated through groove-based music. Credit for both courses 64 and 164 not allowed. P/NP or letter grading.

65. Blues in American Music. (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 developed in American music and culture, from 19th-century roots to present. Exploration of commonly 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. (Formerly numbered Music History 66.) Lecture, four hours; discussion, one hour. Exploration of medievalism in music and culture from Wagner to video games. Music covered includes film scores, opera, Gregorian chant, early music revival, folk songs, progressive rock, and Goth. Credit for both courses 66 and 166 not allowed. Letter grading.

M67. Popular Jewish and Israeli Music. (Formerly numbered Music History 67.) Lecture, four hours; discussion, one hour. History of popular Jewish music is diverse. With history of several thousand years and series of developments in modernity, music in Jewish life covers variety of styles found in nusach (Jewish liturgical music). Exploration of music of Jews within last 100 years, with focus on particular music of Jews in America and Israel. Examination of music in Israel, with focus on songs of land of Israel, Israeli rock, and Middle Eastern popular music). P/NP or letter grading.

68. Beatles. (Formerly numbered Music History 68.) Lecture, four hours; discussion, one hour. Examination of life and music of 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 Politics. (Formerly numbered Music History 69.) Lecture, four hours; discussion, one hour. Exploration and demonstration of various ways in which music has been used by and informs politics. From individual performances to mass demonstrations, music is recognized as a political act and tool that is not simply representative, but also constitutive, mediating and reinforcing beliefs and systems (politics). Examination of development and use of music by social movements, political parties, and nations, and critical listening practices to better hear world around us and sounds that compose its futures. P/NP or letter grading.

70. Beethoven. (Formerly numbered Music History 70.) Lecture, four hours; discussion, one hour. Designed for undergraduate students. Life and works of Ludwig van Beethoven. Credit for both courses 70 and 170 not allowed. P/NP or letter grading.

71. Listening. (Formerly numbered Music History 70.) Lecture, four hours; discussion, one hour. Introduction to humanistic study of listening, as perceptual modality for engaging others and world, with focus on experience, history, politics, and ethics of listening. Hearing is shared perceptive faculty among able-bodied people, but listening practices are shaped by history, society, and culture. Hearing people listen differently depending on when, where, and how they live, as well as who they are as individuals. P/NP or letter grading.

72. Sacred Music. (Formerly numbered Music History 72.) Lecture, four hours; discussion, one hour. Study of forms and liturgies of Western church music. Credit for both courses 72 and 172 not allowed. P/NP or letter grading.

73. Music and Religion in Popular Culture. (Formerly numbered Music History 73.) 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. Prerequisite: both courses M73 and M173 not allowed. P/NP or letter grading.

75. History of Jazz. (Formerly numbered Music History 75.) Lecture, four hours; discussion, one hour. History and analysis of variation of jazz styles, from late 19th-century forerunners to present, with emphasis on social meanings of musical practices. Letter grading.

79. Dancehall, Rap, Reggaeton: Beats, Rhymes, and Routes in African Diaspora. (Formerly numbered Music History 79.) Lecture, four hours; discussion, one hour. Survey of histories of three closely connected music genres: Jamaican dancehall, U.S. rap, and Puerto Rican/Panamanian reggaeton. Introduction to major performers in each genre, comparison of stylistic traits associated with each music, and exploration of technologies associated with contemporary music production. P/NP or letter grading.

80. Sophomore Seminars: Music History. (Formerly numbered Music History 80.) Seminar, two hours. Designed for sophomores Music History majors or students interested in pursuing Music History major. Introduction to music history as academic discipline, with particular emphasis on musicology at UCLA. Study of music and its history and consideration of theoretical issues central to musicology as it is practiced today, including gender and sexuality, music and politics, race, popular music studies, and jazz studies. 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 course lecture 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 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.

CM90T. Early Music Ensemble. (Formerly numbered Music History CM90T.) 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 C490T. P/NP or letter grading.

94. Music and Internet. (Formerly numbered Music History 94.) Lecture, four hours; discussion, one hour. Survey of development of music in digital environment. As music becomes increasingly pervasive—found everywhere, yet living nowhere special—what social, economic, political, and aesthetic forces are determining centers of attention? Examination of formative force of Internet on sounds themselves. What kinds of noises develop logically within digital context, where creative freedoms and public disinterest are equally apparent? What does Internet sound like? 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 low-orientation 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. Issues and Methods in Musicology. (Formerly numbered Music History 101.) Seminar, three hours. Introduction for music majors to practical aspects and fundamental issues of musicology as academic discipline. How musicologists go about establishing, editing, performing, analyzing, and interpreting musical texts. Dependent upon philosophies, and styles of scholarship that continue to shape field of musicology. Letter grading.

125A. Music, History, and Culture: Era of Church and Nation. (Formerly numbered Music History 125A.) Lecture, four hours; discussion, one hour. Requisite: course M6A (may be taken concurrently). Course 125A is requisite to 125B, which is requisite to 125C. Students must receive grade of C or better to proceed to next course in sequence. Introduction to history, culture, and structure of Western music, in era of church and court patronage, through selected topics, repertoires, and analytical techniques. Letter grading.

125C. Music, History, and Culture: Era of Empires and Marketplaces. (Formerly numbered Music History 125C.) Lecture, four hours; discussion, one hour. Requisite: course M6C (may be taken concurrently). Course 125B is requisite to 125C, which is requisite to 125D. Students must receive grade of C or better to proceed to next course in sequence. Introduction to history, culture, and structure of Western music, in era of empires and marketplaces, through selected topics, repertoires, and analytical techniques. Letter grading.

126. Music, Cultures, and Their Interpretation. (Formerly numbered Music History 126.) Lecture, four hours; discussion, one hour. Requisite or corequisite: M6A. Designed to supplement broad historical survey in Music History 125 series by focusing on interlocking questions of how cultures make music, and how music makes cultures.

127. Music, Sound, and Structure. (Formerly numbered Music History 127.) Lecture, four hours; discussion, one hour. Requisite or corequisite: M6A. Designed to supplement broad historical survey in Music History 125 series by focusing on interlocking questions of musical structure and meaning. Letter grading.

128. History of Popular Music. (Formerly numbered Music History 128.) Lecture, four hours; discussion, one hour. Requisite or corequisite: M6A. Introduction to study of popular music through American history, with emphasis on music of Americas, Afro-diasporic music, and socioeconomic structure of music making in industrial society. Letter grading.


135B. Course 135A is requisite to 135B, which is requisite to 135C. Students must receive grade of C or better to proceed to next course in sequence. Introduction to history, culture, and structure of Western music, in era of modern and postmodern eras, through selected topics, repertoires, and analytical techniques. Letter grading.

136. Music, Cultures, and Their Interpretation. (Formerly numbered Music History 136.) Same as Gender Studies 136. Lecture, four hours; discussion, one hour. Requisite: course M6C (may be taken concurrently). Analysis of gender ideologies in several musical cultures; representations of gender, body, and sexuality by both male and female musicians; contributions of women to Western art and popular musics; methods in feminist and gay/lesbian theory and criticism. Letter grading.

137. Lesbian, Gay, Bisexual, Transgender, and Queer Perspectives in Pop Music. (Formerly numbered Music History 147CST) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies 147CST)
117. Beethoven: Study of Selected Works. (Formerly numbered Music History 170.) Seminar, 90 minutes. Corequisite: attendance, but not enrollment, in course 70. Lecture. Designed to meet needs of students who read music and wish to examine Beethoven's works in greater depth. Credit for both courses 70 and 170 not allowed. Letter grading.

118. Selected Topics in American Musical. (Formerly numbered Music History 160.) Seminar, 90 minutes. Enforced corequisite: attendance, but not enrollment, in course 60 lecture. Exploration of connections and disconnects between American musical on stage and American film musicals. Credit for both courses 60 and 160 not allowed. Letter grading.

122. Selected Topics in Music of Mozart. (Formerly numbered Music History 162.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 62 lecture. Intensive discussion of selected pieces by Mozart and of certain topics important to fuller understanding of his contributions to musical culture of Enlightenment as well as to contemporary culture. Credit for both courses 62 and 162 not allowed. Letter grading.


164. Selected Topics in African American Popular Music of 1960s. (Formerly numbered Music History 164.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 64 lecture. Intensive discussion 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 music centers of production. Relationships between musical forms and cultural issues of 1960s, including Civil Rights Movement, counterculture, black nationalism, especially as preparation, or large dimensions of African American experience as mediated through groove-based music. Credit for both courses 64 and 164 not allowed. Letter grading.

165. Blues and Individual Expression. (Formerly numbered Music History 165.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 65 lecture. Limited to Music History majors and minors. In-depth look at specific blues artists, with special attention to issues of authenticity, biography, personal and group identity, commercialism, musical style, and evolving history of American music and culture in 20th century. Credit for both courses 65 and 165 not allowed. Letter grading.

166. Medievalism and Music History. (Formerly numbered Music History 166.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 66 lecture. Examination of ways specific approaches and attitudes to past shape music history, composition, and performance, with special focus on folk music and early music revivals. Credit for both courses 66 and 166 not allowed. Letter grading.

167. Selected Topics on Beatles. (Formerly numbered Music History 168.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 68 lecture. Intensive discussion in seminar setting of selected topics associated with Beatles. Credit for both courses 68 and 168 not allowed. Letter grading.

170. Beethoven: Study of Selected Works. (Formerly numbered Music History 170.) Seminar, 90 minutes. Corequisite: attendance, but not enrollment, in course 70 lecture. Designed to meet needs of students who read music and wish to examine Beethoven’s works in greater depth. Credit for both courses 70 and 170 not allowed. Letter grading.

172. Selected Topics in Sacred Music. (Formerly numbered Music History 172.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 72 lecture. Introduction to some ways that music has been held to embody, support, and enact sacredness, including experience of god(s), sense of transcendental, work of sacred sections of music, political, and religious. 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 77 lecture. Seminar setting of selected topics in rock and roll. Credit for both courses 77 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 75 lecture. Intensive discussion in seminar setting of selected topics in rock and roll. Credit for both courses 75 and 185 not allowed. Letter grading.

CM186. Music Industry. (Formerly numbered Music History CM186.) (Same as Ethnomusicology CM186.) Seminar, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Music History 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 mass media. Includes analysis of music industry today. Concurrently scheduled with course CM288. Letter grading.


188. Special Courses in Music History. (Formerly numbered Music History 188.) Lecture, four hours. Special topics in music history for undergraduate students on a temporary basis. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors course 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 to explain topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Music History. (2) Formerly numbered Music History 190.) Seminar, two hours. Designed for senior Music History majors. Structured as meeting to present supervised tutorial research in seminar setting with one or more faculty members to complete their capstone projects and share their work with their peers, as well as other campus-related audience members. Students expected to present their work and to discuss and help critique works of others at similar stage of development. May be repeated for credit. P/NP or letter grading.

191. Musical Research Seminars. (2) Seminar, three hours. Designed for junior Music History majors. Special aspects of music of each period studied in depth. Reading, discussion, and competent project. Letter grading.

191A. Middle Ages; 191B. Renaissance; 191C. Baroque; 191D. Classic; 191E. Romantic; 191F. 20th Century; 191G. Performance Practice. Practical issues in performance practice, specific questions of how musical performances intersect with cultural and political performance, and/or general issues of theory in Western music; proportions of each to be determined by expiry and historical context selected by instructor.

193C. Music History Club Seminars for Majors. (2) Formerly numbered Music History 193C.) Seminar, two hours. Limited to Music History majors. Introduction to discipline through discussion of readings and lectures on current topics in field, with focus especially on its practice at UCLA, and addressing research methodologies and development of bibliographic control. Normally taken in junior year. P/NP grading.

193D. Music History Performance/Analysis Seminar for Majors. (2) Formerly numbered Music History 193D.) Seminar, two hours. Recommended requisite: course 193C. Limited to Music History majors. Introduction to how music historians engage with issues of musical performance, and of how historiographical concerns, theoretical issues, and methodologies can inform music as practice, especially as it is performed, recorded, listened to, danced to, and other ways consumed. Continued attention to issues of bibliographic control. Normally taken in senior year. P/NP grading.

195. Community Internships in Music. (2 to 4) (Formerly numbered Music History 195.) Tutorial, one hour; fieldwork, 10 hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business related to music or music history. Students meet on regular basis with instructor and provide periodic report of their experiences and final project. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Music History. (2 to 4) Formerly numbered Music History 197.) Seminar, 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.

198. Honors Research in Music History. (2 to 4) (Formerly numbered Music History 198.) Tutorial, two hours. Preparation: completion of minimum of four upper-division music history courses with departmental grade-point average of 3.5 or better and overall GPA of 3.0. Limited to juniors/senior Music History majors. One- to two-term independent research study project under supervision of appropriate faculty member, culminating in department honors thesis of approximately 100 pages. May be repeated for credit. Individual contract required. P/NP or letter grading.
199. Directed Research in Music History. (1 to 4) (Formerly numbered Music History 199.) Tutorial, one hour. Preparation: 3.0 grade-point average. Limited to junior/senior Music History majors. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 9 units. Individual contract required. P/NP or letter grading.

**Graduate Courses**

200A. Introduction to Music Scholarship. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to history of different fields of music scholarship (with strong food) 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 practical written forms such as abstract, grant proposal, paper/book proposal, and review. Letter grading.

200B. Critical, Cultural, and Social Theory. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to issues surrounding music as social, cultural, and historical practice, with strong emphasis on critical, cultural, and historical 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 including structure of feelings, sociology, historiography, urban studies, anthropology, philosophy, psychoanalysis, poststructuralism, gender, race, and sexuality studies, lesbain, 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 of music and to acquire skills in analyzing and interpreting variety of repertoires. Letter 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. 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 be repeated for credit. S/U grading.

247. Seminar: Special Topics in Musicology. (4) Seminar, three hours. Exploration of topics 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. 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.

258. Seminar: Research Development. (2 to 4) Seminar, two hours. Designed for graduate musicology students. Preparation of advanced knowledge and bibliographic control in three historically separate areas of musicological specialization. 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.

490T. Early Music Ensemble. (4) Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from historical periods prior to 1800. Early instrumental may be used at instructor’s discretion. May be repeated for credit without limitation. May be concurrently scheduled with Music History CM290T. 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.

596. Directed Individual Studies in Musicology. (2, 4, or 6) Tutorial, to be arranged. Limited to graduate students. S/U or letter grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 or 4) Tutorial, to be arranged. Preparation: completion of all MA or PhD course and language requirements. Limited to graduate students. S/U grading.

599. Guidance of PhD Dissertation. (4, 8, or 12) Tutorial, to be arranged. Preparation: advancement to PhD candidacy. Limited to graduate students. May be repeated for credit. S/U grading.

**NAVAL SCIENCE – NAVY ROTC**

College of Letters and Science

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**Scope and Objectives**

In accordance with the National Defense Act of 1920 and with the concurrence of the Regents of the University of California, a unit of the Army Senior Division Reserve Officers’ Training Corps (ROTC) was established on the Los Angeles campus in July 1920. Navy and Air Force units were established in 1938 and 1949 respectively.

This voluntary training in the Naval ROTC program allows students to qualify for an officer’s
commission in the Navy or Marine Corps 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 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

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 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 January 31 for the fall term. Two or three-year scholarship applications may be obtained from the Naval Science Department and are considered when received.

Naval/ 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 Naval Reserve Officers’ Training Corps (NROTC), scholarship students receive full tuition, fees, books, and subsistence pay of $250 to $400 per month. Non-scholarship students may apply to participate as members of the midshipman battalion under the NROTC College Program and, if selected for advanced standing prior to their junior year, may receive an active duty commission at graduation. Because of the rapid development of highly technical ship systems, aviation, and other military equipment, science and engineering majors are highly desirable; however, Navy/Marine Corps 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 test, and summer training cruises, each about four to six weeks long. Both Navy and Marine Corps option students must also pass a swimming test. Some 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

Scholarship Program

The majority of naval science students attend UCLA on Navy/Marine Corps scholarships, which are awarded primarily on a four-year basis to high school seniors selected by a nationwide competition. A two-year upper-division scholarship program is also available, with a similar selection process, to students who have not yet begun their junior year in college. Applications for both types of scholarships are due by January 31 each year. In addition to tuition, fees, and uniforms, students receive subsistence pay of $250 to $400 per month and a book stipend. Scholarship students are obligated to serve on active duty for a minimum of four to five years following graduation and commissioning.

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 year. These students have the opportunity to compete for scholarships after the completion of one term of naval science courses. If they do not win a scholarship, or choose not to compete for one, they must compete for advanced standing prior to their junior year. A two-year College Program is also available to students who have not yet started their junior year. Students enter the two-year program with advanced standing after selection through national competition and completion of a six-week summer training period. Applications for the two-year program are due March 1 of the sophomore year. All College Program students receive uniforms, naval science textbooks and, once selected for advanced standing, monthly subsistence pay in their junior and senior years.

Marine Corps Option

Highly motivated NROTC students may request designation as Marine Corps option students and may also pursue any UCLA academic degree. The final summer training, and a requirement to be commissioned as an officer in the Marine Corps, may be deferred in the College Program. All Marine Corps option students also participate, on a limited basis, in field training exercises during the academic year.

Navy Science

Lower-Division Courses

2. Naval Science Laboratory. (No credit) Laboratory, to be arranged. Mandatory for and limited to Naval Science ROTC midshipmen. Provides midshipmen with general military training and practical command and staff leadership experiences through classroom instruction and performance of various tasks and interactive processes within framework of organized midshipmen-run military unit, with oversight by active-duty military staff. As integral part of naval science curriculum, provides professional experiences designed to develop leadership potential and orientation for midshipmen.

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.


19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of art, science, and philosophy that highlights current topics. P/NP or letter grading.
NEAR EASTERN LANGUAGES AND CULTURES

College of Letters and Science
378 Humanities Building
Box 951511
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Near Eastern Languages and Cultures
310-825-4165
Department e-mail

William M. Schniedewind, PhD, Chair

Professors
- Khaled M. Abou El Fadl, JD, MA, PhD (Omar and Azmeralda Alf Endowed Professor of Islamic Law)
- Carol A. Bakhos, PhD
- Aaron A. Burke, PhD
- Elizabeth F. Carter, PhD
- Michael D. Cooperson, PhD
- S. Peter Cowe, PhD (Narekatsi Professor of Armenian Studies)
- Robert K. Englund, PhD
- William M. Schniedewind, PhD (Kershaw Professor of Ancient Eastern Mediterranean Studies)
- M. Rahim Shayegan, PhD (Jahangir and Eleanor Amuzegar Professor of Iranian Studies)
- Susan E. Slyomovics, PhD
- Willeke Z. Wendrich, PhD (Joan Silsbee Professor of African Cultural Archaeology)

Associate Professors
- Azma M. Ahmad, PhD
- Andrea E. Bodrogligeti, PhD
- Giorgio Bucellati, PhD
- Herbert A. Davidson, PhD
- Lev Hakak, PhD
- Ismail K. Poonawala, PhD
- Yona Sabar, PhD

Assistant Professor
- Domenico Ingentio, PhD

Senior Lecturers
- Nancy Ezer, PhD
- Latifeh E. Hagigi, MA
- Anahid Keshishian, PhD
- Jeremy D. Smoak, PhD

Lecturers
- Steven K. Allah, PhD
- Hagan Kouloujian, MBA

Adjunct Professor
- Nader Saledi, PhD

Adjunct Associate Professor
- Hans Barnard, MD, PhD

The mission of the Department of Near Eastern Languages and Cultures is the discovery, interpretation, dissemination, and preservation of human values created over a period of five or more thousand years in an area that was the cradle of all civilization.

The department offers instruction in the major modern and ancient languages of the Near East: Akkadian, ancient Egyptian, Arabic, Armenian, Berber, Coptic, Hebrew, Persian, and Turkish. To meet increasing demands for a knowledge of this area and its past and present, it treats each language in a wide perspective—as a means of communication, as a vehicle of a cultural heritage, as a research tool for the area, and as an object of research itself.

Undergraduate majors may be taken in Ancient Near East and Egyptology, Arabic, Iranian Studies, Jewish Studies, and Middle Eastern Studies. MA and PhD programs are offered in Ancient Near Eastern Civilizations, Arabic, Armenian, Hebrew, Iranian, Islamic Studies, Semitics, and Turkic.

Courses in the department prepare students for careers in government, foreign trade, teaching abroad, journalism abroad, archaeology, and further academic work involving the area.

Undergraduate Study

The department offers the Bachelor of Arts degree in five fields: Ancient Near East and Egyptology, Arabic, Iranian Studies, Jewish Studies, and Middle Eastern Studies. In each of these fields students must meet the requisites and take the courses prescribed. Their adviser assists in selecting a plan of study developed around their interests.

Students may combine their major with one in another department (double major) to enhance their educational opportunities. Due to the number of additional courses required, they are advised to consider this option early in their academic career and in consultation with program advisers in both majors.

Ancient Near East and Egyptology BA

Learning Outcomes

The Ancient Near East and Egyptology major has the following learning outcomes:

- Demonstrated mastery of the ancient Near East and its history
- Demonstrated skills and expertise, including research, analysis, and writing
- Identification, evaluation, and analysis of historical monuments, time periods, vocabulary, concepts, and historical figures

Preparation for the Major

Required: Three courses selected from Ancient Near East 10W, 15, Middle Eastern Studies M50A, M50B, Near Eastern Languages M20. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the Ancient Near East and Egyptology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one civilization course on Mesopotamia, Egypt, Near Eastern archaeology, or Middle Eastern cultures.

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

The Major

Students must complete 10 courses as follows:

Required Core Courses: One course selected from four of the following five areas (total of four courses):

- History: Ancient Near East M103A through M104D, M110A, or Jewish Studies M182A.

Required Elective Courses: Any six courses (no more than three may be from Anthropology) selected from the categories above or from Ancient Near East 121A, 121B, 121C, C123A, C123B, 124, 125A, M125B, M125C, C177, Anthropology 110, CM110Q, 111, 112R, 130, 140, English 111A, 111B, 111C, Greek 130, Hebrew 125, 130, 135, 188FL, Study of Religion M186A, M186B, M186C, Semitics 130, 141, 142.

A maximum of 8 units of special studies courses (197, 198, 199) approved by the department may be applied toward the major. Each course must be taken for a letter grade.

Study Abroad

Students are encouraged to spend time abroad either to (1) study with an education abroad program or (2) work on a UCLA-affiliated archaeological excavation in the broader Middle East. For information on studying abroad, contact the Education Abroad Program, 1332 Murphy Hall, 310-823-4995; for UCLA-affiliated excavations, contact the departmental academic counselor at 310-825-4165.

Arabic BA

Learning Outcomes

The Arabic major has the following learning outcomes:

- Demonstrated written and oral mastery of the Arabic language
- Demonstrated knowledge of other Arabic dialects such as Iraqi, Egyptian, etc.
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Ability to read texts in Arabic, and to analyze the language and cultural context
- Identification, evaluation, and analysis of historical monuments, time periods, vocabulary, concepts, and historical figures

Courses in the department prepare students for careers in government, foreign trade, teaching abroad, journalism abroad, archaeology, and further academic work involving the area.

Preparation for the Major

Required: Three courses selected from Ancient Near East 10W, 15, Middle Eastern Studies M50A, M50B, Near Eastern Languages M20. Each course must be taken for a letter grade.

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 civilization course on Mesopotamia, Egypt, or Middle Eastern cultures.

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

The Major

Students must complete 10 courses as follows:

Required Core Courses: One course selected from four of the following five areas (total of four courses):

- History: Ancient Near East M103A through M104D, M110A, or Jewish Studies M182A.

Required Elective Courses: Any six courses (no more than three may be from Anthropology) selected from the categories above or from Ancient Near East 121A, 121B, 121C, C123A, C123B, 124, 125A, M125B, M125C, C177, Anthropology 110, CM110Q, 111, 112R, 130, 140, English 111A, 111B, 111C, Greek 130, Hebrew 125, 130, 135, 188FL, Study of Religion M186A, M186B, M186C, Semitics 130, 141, 142.

A maximum of 8 units of special studies courses (197, 198, 199) approved by the department may be applied toward the major. Each course must be taken for a letter grade.

Study Abroad

Students are encouraged to spend time abroad either to (1) study with an education abroad program or (2) work on a UCLA-affiliated archaeological excavation in the broader Middle East. For information on studying abroad, contact the Education Abroad Program, 1332 Murphy Hall, 310-823-4995; for UCLA-affiliated excavations, contact the departmental academic counselor at 310-825-4165.
Preparation for the Major

**Required:** Arabic 1A, 1B, 1C, and History 9D or Middle Eastern Studies 50C.

**Transfer Students**

Transfer applicants to the Iranian 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 M151, 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 M151 (unless taken under item 1), M155, M171, 180, 181, Art History 115A, 115B, Comparative Literature 100, History 105A, 105B, 105C, M106, 108B, 111A, 111B, 111C, Islamic Studies 130, 151, Political Science 132A, M132B, 157, 165. No more than one course may be credited through a proficiency test administered by the department. No more than two upper-division 4-unit independent study or directed research courses (197, 199) may be applied toward the major. Other courses, including extra-departmental courses, may be applied with consent of the adviser.

Iranian Studies BA

Students majoring in Iranian Studies may combine the major with specialization in other fields to enhance their career opportunities. Due to the number of additional courses required, they are advised to consider this option early in their academic career.

**Learning Outcomes**

The Iranian Studies major has the following learning outcomes:

- Demonstrated written and oral mastery of Persian 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:** Iranian 1A, 1B, 1C, or equivalent.

**Transfer Students**

Transfer applicants to the Iranian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Persian.

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

The Major

**Required:** Eleven courses, including seven in Iranian language and civilization selected from Ancient Near East CM163, Iranian 102A, 102B, 102C, 103A, 103B, 103C, M110A, M110B, M110C, 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 10W, Middle Eastern Studies M50A, M50B, 50C and demonstrated proficiency equivalent to level 3 at UCLA in one foreign language (Arabic, Armenian, Hebrew) in consultation with the department.

**Transfer Students**

Transfer applicants to the Jewish Studies major with 90 or more units must complete the following introductory course prior to admission to UCLA: one social, cultural, and religious institutions of Judaism course.

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

The Major

**Required:** Eleven courses, including (1) three selected from Hebrew 102A, 102B, 102C, 103A, 103B, 103C, 105A, 105B, 105C, 111A, 111B, 111C, 120, 125, 130, 135; C140—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 108, 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.

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.

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, 50C 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, Persian, Turkish, or another modern middle Eastern language.

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

The Major

**Required:** Students must complete 11 courses as follows:

- **Required Core Courses:** A total of six courses, including at least two from three of the following four areas:

Students may petition to substitute a core or elective course with a departmental independent study/directed research course (197, 198, or 199) as long as it covers a topic relevant to Middle Eastern studies. No more than two 197, 198, or 199 courses (8 to 10 units) may be applied toward the major.

Study Abroad

Students are encouraged to spend time abroad either to (1) study with an education abroad program or (2) work on a UCLA-affiliated archaeological excavation in the broader Middle East. For information on studying abroad, contact the Education Abroad Program, 1332 Murphy Hall, 310-825-4889; for UCLA-affiliated excavations, contact the departmental academic counselor at 310-825-4165.

Ancient Near East and Egyptology Minor

To enter the Ancient Near East and Egyptology minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Humanities Building, 310-825-4165.

Required Lower-Division Courses (10 units): Ancient Near East 10W, 15, Middle Eastern Studies M50A, M50B, 50C.


A maximum of 4 graded units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the major. No course for the minor or preparation for the minor may be taken on a P/NP grading basis.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Arabic and Islamic Studies Minor

The Arabic and Islamic Studies minor is designed for students who wish to augment their major program with a group of related courses that provide a systematic introduction to the study of Arabic language and literature and Islam.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Humanities Building, 310-825-4165.

Required Lower-Division Courses (15 units): Arabic 1A, 1B, 1C, or equivalent.

Required Upper-Division Courses (20 units): Five courses in Arabic or Islamics; 199 courses may not be applied. With consent of the undergraduate adviser, two of the five courses may be taken outside the department. Courses recommended as electives for the major in Arabic (Anthropology M166Q, Art History 119A, 119B, C120, Comparative Literature 100, History 105A, 105B, 105C, M106, 108B, 111A, 111B, 111C, Islamic Studies M110, 130, Political Science 132A, M132B, 157, 165) may be applied. Other courses, including extra-departmental courses, may be applied with consent of the adviser.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

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 Humanities Building, 310-825-4165.

Required Lower-Division Courses (15 units): Hebrew 1A, 1B, 1C, 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 Humanities Building, 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 50C.


A maximum of 4 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the minor. No course for the minor may be taken on a P/NP grading basis.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better and file a petition in 378 Humanities Building, 310-825-4165.

Required Lower-Division Courses (15 units): Armenian 1A, 1B, 1C, or equivalent.

Required Upper-Division Courses (20 units): 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.
grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Israel Studies Minor**

The Israel Studies minor is designed for students interested in adding a particular focus on Israel to their major. Comprised of coursework that serves to create a broad introductory foundation of familiarity with Israeli history, society, politics, and culture, the minor is appropriate for students from a wide range of majors, including Art, Comparative Literature, Film and Television, History, Jewish Studies, Middle Eastern Studies, Political Science, and Study of Religion.

To enter the minor, students must have an overall grade-point average of 2.0 or better, completed Middle Eastern Studies 50C or equivalent, and file a petition in 378 Humanities Building, 310-825-4165.

**Required Upper-Division Courses (28 to 33 units):** Jewish Studies M142, M144, and five courses from at least two of the following categories:


A maximum of 4 graded units of special studies courses (197, 198, 199) approved by the department may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Middle Eastern Studies Minor**

The Middle Eastern Studies minor is designed for students who wish to augment their major program in the College of Letters and Science with a group of related courses from various linguistic, literary, archaeological, and historical disciplines of the Near East, from ancient Egypt, Mesopotamia, and biblical studies to the modern Arabic, Armenian, Iranian, Jewish, and Turkish world.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Humanities Building, 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, 50C.

**Required Upper-Division Courses (20 units):** A total of five courses, including at least three from one of the following four areas:

- **Literature:** Ancient Near East 150A, 150B, Arabic M110, C141, M148.


Students may not substitute a core or elective course with a departmental independent study/directed research course (197, 198, or 199).

A minimum of 20 units applied toward the minor must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Near Eastern Languages and Cultures offers Master of Arts (MA), Candidate in Philosophy (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 Ugaritic courses.

**Lower-Division Courses**

10W. **Israel: Holy City.** (6) Lecture; three hours; discussion, one hour. Enrolled requisite: English Composition 3. Not open for credit to students with credit for course 12W. Survey of religious, political, and cultural history of Jerusalem over three millennia as symbolic focus of three faiths: Judaism, Christianity, and Islam. Transformed 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 myths over time and experience. Satisfies Writing II requirement. Letter grading.

12W. **Jerusalem: Holy City.** (6) Seminar; four hours. Enrolled 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. Transformed space as reflected by literary and archaeological evidence through examination of testimony of artifacts, architectural monuments, and iconography in relation to written sources. Study of creation of myths through event and experience. Development of advanced writing skills and critical thinking. Satisfies Writing II requirement. Letter grading.

14W. **Medicine, Magic, and Science in Ancient Times.** (6) Lecture; three hours; discussion, one hour. Enrolled requisite: English Composition 3. Overview of history of medicine and sciences, focusing especially on Ancient Near East, China, and America. Satisfies Writing II requirement. Letter grading.

15W. **Women and Power in Ancient World.** (6) Lecture, four hours; discussion, one hour. Examination of why feminine power confers masculine dominance within complex social systems in ancient world. To gain political power, some female rulers used their sexuality to gain access to important men. Other women gained their position as regents and helpers of masculine kings who were too young to rule. Others denied their femininity in dress and manner, effectively androgynizing themselves or pretending to be men so that their femininity would not be obstacle to political rule. Many women who gained throne at end of dynasties after male line had run out entirely, or in midst of civil war when patrilineal successors were in disarray. Women were sometimes only effective leaders left in drawn-out battles against imperial aggression. No women were able to gain reigns of power through their bloodlines alone. Women’s power was compromised from outset. Examination of root causes and results of this political inequality. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. **Egyptian Hieroglyphs.** (5) Lecture, five hours. Basic introduction to language and hieroglyphic script of ancient Egypt. Devoted to learning principles of hieroglyphic writing and Egyptian grammar, deciphering standard inscriptions, and using hieroglyphic text editing software to type hieroglyphs on computer. Students acquire ability to recognize and transcribe hieroglyphic inscriptions on common museum objects. P/NP or letter grading.

M50A. First Civilizations. (5) Same as Middle Eastern Studies M50A.) Lecture; three hours; discussion, one hour. Survey of great civilizations of ancient Near East—Egypt, Israel, and Mesopotamia—with attention to emergence of writing, monotheism, and urban societies. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) Same as Middle Eastern Studies M50B and Religion M50.) Lecture; three hours; discussion, one hour. Examination of three major monotheisms of Western cultures—Judaism, Christianity, and Islam—historically and comparatively. Development of critical thinking 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.

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, including 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.

90. Summer 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. Structured around academic planning and enrollment in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

CM101A. Art and Architecture of Ancient Egypt, Predynastic Period to New Kingdom. (4) Same as Art History M101A. Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during Predynastic period and Old Kingdom. May be repeated for credit with consent of instructor. Concurrently scheduled with course C267A. P/NP or letter grading.

CM101B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) Same as Art History M101B. Lecture, three hours. Study of architecture, sculpture, painting, and minor arts from New Kingdom to Greco-Roman period. Concurrently scheduled with course C267B. P/NP or letter grading.

M101C. Ancient Egyptian Temple and City of Thebes. (4) Same as Art History M110C. Lecture, four hours; field trips. Study of development and cultural and political transformations of the ancient city of Thebes (modern day Luxor). Theban temples are some of best-preserved cult buildings in all of Egypt, and their study illuminates traditions of artistic representation, architectural development, and religious and political institutions throughout 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 statutory program of individual temples. P/NP or letter grading.

M103A-M103B. History of Ancient Egypt. (4-4) Same as Art History M103A-M103B. Lecture, three hours; discussion, one hour (when scheduled). Course M103A is 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 discussion of Prehistory, Old and Middle Kingdom, M103B. New Kingdom and late period until 332 BC.

M104A. History of Ancient Mesopotamia and Syria. (4) Same as Art History M104A-M104B. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural development of Fertile Crescent, including Palestine, from Late Uruk to neo-Babylonian period. P/NP or letter grading.

M104B. Sumerians. (4) Same as Art History M104B. Lecture, three hours. Overview of Sumer and related cultures of Greater Mesopotamia in 4th and 3rd millennia BCE, with focus on rich cultural history of region and integration of archaeological, art historical, and written records. P/NP or letter grading.
material and technological/methodological issues in-herent 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. 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 encoded as meaningful and relevant for understanding work for understanding physical reality and human life for inhabitants of Nile Valley. General principles as well as approaches throughout time (c. 3100 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. Introductory survey of various ancient Israelite religious beliefs and prac-tices, their origin, and development, with special at-tention to diversity of religious practice in ancient Is-rael and Canaan during first millennium BCE. P/NP or letter grading.

140A-140B. Elementary Semitic. (4-4-4) Lecture, three hours. Requisites: Semitics 140A, 140B. Elementary grammar and reading of royal inscriptions, letters, and administrative texts from Ur III period to early Iron Age. P/NP or letter grading.

150A-150B. Survey of Ancient Near Eastern Litera-tures 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 requisites: courses M103A, M103B. Survey of 3,000 years of ancient Egyptian literature. Reading of Egyp-tian texts in translation to study Egyptian intellectual history and trace transformations in its construction of cultural identity. Topics include invention of writing, autobiography, wisdom texts, narratives, royal inscrip-tions, and hymns. Discussion of text analysis such as by comparative and cultural methods.


162. Archaeology, Identity, and Bible. (5) Lecture, three hours; discussion, one hour. Introduction of ar-chaological record of southern Levant (ancient Israel) from prehistoric through Achaemenid Period (ca. 2500–332 BC). Course integrates current understandings of genre, authorship, and historical value of Hebrew Bible. Ancient Israelite identities are traced through combination of archaeological and textual sources. Social, religious, and political traditions of ancient Israel and Judah are interpreted in context of earlier Bronze Age traditions and Israel's Iron Age neighbors. Archaeological and textual data for ancient Near East and Nabataeans, with focus on ancient visual ma-terials—both objects and architecture—from Predynastic to Roman periods, P/NP or letter grading.

M167. Magic in Ancient World. (4) Same as Classi-cs M167.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: Classics 10 or 20. Exploration of the role of magical and religious natural events in the ancient world. Survey of various cultures of ancient world. Source materials include types of magical spells, literary texts about magic and magicians, and artifacts (amulets and ritual implements). P/NP or letter grading.

M168. Introductory Hittite. (4) Same as Indo-Euro-pean Studies M168.) Lecture, two hours; recitation, one hour. Recommended preparation: knowledge of language with case system. Introduction to Hittite grammar by series of graded lessons covering mor-phology and syntax, followed by readings of selected texts from variety of genres in transliteration. P/NP or letter grading.

CM169. Introduction to Archaeological Sciences. (4) Same as Anthropology CM110Q.) Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology to implement and evaluate results of their use by others who have em-bedded them in their scholarly publications or theo-retical models. Systematic instruction in digital data management and analysis of material remainders (including geological and biochemical tech-niques), and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM269. P/NP or letter grading.


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 C277. P/NP or letter grading.

M179. Cultural Heritage and Identity Representa-tion: Creating Fowler and Virtual Exhibit. (4) Same as Art History M179.) Lecture, three hours; discus-sion, one hour. Exploration of what it takes to run mu-seum, from acquiring and cataloging objects to different types of museum work, ranging from collecting and curation, to research, conservation, presentation, vis-itor 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 consider-ation. Consideration of narrative exhibit and how ob-jects and their arrangement convey deliberate or acci-dental messages. Consideration of audiences as well as original context of each object. Focus on people behind objects, technologies, or material characteris-tics. P/NP or letter grading.

CM185. Archaeology of Iran. (4) Same as Iranian CM163.) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Achaemenid times. Concurrently scheduled with other CM courses. P/NP or letter grading.

C165. 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 other CM courses. 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 Nabataeans, with focus on ancient visual ma-terials—both objects and architecture—from Predynastic to Roman periods, 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. Indi-vidual study with lecture course instructor to explore topics in greater depth through supplemental reading, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-dents. Honors notation on transcript. P/NP or letter grading.

Graduate Courses

M201. Archaeological Research Design. (4) Same as Anthropology M201C and Archaeology M201C.) Seminar, three hours. Requisites: Archaeology M101A, M101B. How to design archaeolog-ical projects in preparation for MA thesis or PhD phase. Stu-dents do exploratory research to select subject, then write research design that could form basis for exten-sive archaeological project or grant application. Students work closely with faculty members and report weekly on their progress. Preparation of at least two oral progress-report presentations, one on theoretical framework and one on practical aspects of project. Final written research design that incorporates theore-tical and practical aspects of research and formulates bridging arguments required. S/U or letter grading.

M205. Topics in Ancient Iranian History. (4) Same as History M210 and Iranian M210.) Seminar, three hours. Varying topics on Elamite, Achaemenid, Ar-abic, and Sassanian history. May be repeated for credit. S/U or letter grading.

210. Late Egyptian. (4) Lecture, three hours. Requi-sites: courses 121A, 121B, 121C, Late Egyptian grammar and reading of both hieroglyphic and hier-aric texts. May be repeated for credit. S/U or letter grading.

211A-211B. Egyptian Texts of Greco-Roman Peri-od. (4–4) Lecture, three hours. Introduction to grammar and orthography of hieroglyphic texts from Graeco-Roman temples and translation 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 litera-ture through close readings of texts in original lan-guage and evaluation of current scholarship on these texts. Students hone their knowledge of Middle Egyp-tian grammar and become familiar with philological methods in study of Egyptian literature. S/U or letter grading.

220. Seminar: Ancient Egypt. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

221A-221B. Demotic. (4–4) Lecture, three hours. Requisite: course 121C. Course 221A is requisite to 221B. Introduction to Demotic grammar and ortho-draphy. Reading of texts from various genres. May be repeated for credit with topic change. S/U or letter grading.

C222A-C223B. Coptic. (5-5) Lecture, three hours. Introduction to Coptic, final phase of Egyptian lan-guage, which is attested in writing from circa 330 to 1500 CE. Concurrently scheduled with courses C123A-C123B, S/U or letter grading. C222A. Devoted to learning Coptic alphabet, grammar, and vocabulary (Sahidic dialect), with particular emphasis on histor-i-cal linguistics. C222B. Requisite: course C223A. In-troduction to 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 Achaemenid times. Concurrently scheduled with course CM163. S/U or letter grading.

260. Seminar: Ancient Near Eastern Archaeology. (2 to 4) Seminar, three 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 the Heeramanek Collection of 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, statuary and monuments, settlement and use history, text translation of appropriate documents, including stele, 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 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 literature, with specific test cases from actual excavations and site reports. Coverage of theoretical implications of such disciplines as surveying and paleoecology 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 C165. S/U or letter grading.

C267A. Art and Architecture of Ancient Egypt, Predynastic and Early Dynastic. (4) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during Predynastic period and Old Kingdom. May be repeated with consent of instructor. S/U or letter grading. (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 CM260.) Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology to implement them and to appreciate and evaluate results. Offered to use by students who have been em­bedded them in their scholarly publications or theoretical models. 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 CM169. S/U or letter grading.

C270. 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 2880 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, letters, and legal documents. S/U or 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 with prior knowledge of Arabic. Introduction to formal Arabic (modern standard Arabic), including listening, speaking, reading, and writing. S/P/NP or letter grading.

2. Elementary Standard Arabic: Intensive. (12) Lecture, 12 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. Students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intermediate formal Arabic, including listening, speaking, reading, and writing. Offered in summer only. S/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.

M50. Islam and Other Religions. (4) (Same as Islamic Studies M50.) Lecture, three hours. Knowledge of Arabic not required. Honors content noted on transcript. P/NP or letter grading.

CM50. Islam and Other Religions. (4) Lecture, three hours. Basic doctrines and practices of Islam. Survey of history of Islam in West, with focus on U.S. and France. Analysis of issues relevant to growth and development of selected Muslim communities in West. Explore­sure to diverse expressions of Islam through inde­pendent research on Muslim communities and institu­tions in U.S. Development of strong analytical writing and speaking skills. P/NP or letter grading.

108. Summer Intensive Intermediate Arabic. (12) Lecture, and discussion, 12 hours. Enforced requisite: course 102A. 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. S/P or letter grading.

510. Qur’an. (4) (Same as Religion M108.) Lecture, three hours. How Qur’an as scripture shapes Muslim doctrine, rituals, and culture, and how throughout his­tory Muslims have determined and ap­plied Islamic ideas and practices. Consideration of axis cases and modes of interaction between Muslims and non-Muslims in plural societies. Critical evaluation and analysis of contemporary discourses on Islam. Letter grading.

510B. Qur’an. (4) (Same as Islamic Studies M107 and Religion M107.) Lecture, three hours; discussion, one hour. Acquisition of understanding of basic doctrines and practices of Islam. Survey of his­tory of Islam in West, with focus on U.S. and France. Analysis of issues relevant to growth and development of selected Muslim communities in West. Exposure­sure to diverse expressions of Islam through inde­pendent research on Muslim communities and institu­tions in U.S. Development of strong analytical writing and speaking skills. P/NP or letter grading.

108. Summer Intensive Intermediate Arabic. (12) Lecture, and discussion, 12 hours. Enforced requisite: course 102A. 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. S/P or letter grading.

110. Thousand and One Nights/All Layla Wa Lahya. (4) (Same as Classical CM111.) Lecture, three hours. Knowledge of Arabic not re­quired. Since its appearance in Europe in 1704, Thou-
sand and One Nights is most well-known work of Ar-abic literature in West. Examination of cycle of tales more commonly known as Arabian Nights, including history of its translation, contemporary oral perfor-mances of tales in Arabic-speaking world, literary emergence of vernacular language in relation to clas-sical Arabic, and Western appropriations of tales in music, film, and novels (Ravel, Rimsky-Korsakov, Barth, Poe, and Walt Disney). P/N or letter grading.

111A-111B-111C. Elementary Spoken Egyptian Ara-bic. (4) Lecture, three hours. Introduction to spoken premo-dern Arabic dialect of Egypt. Training in listening, speaking, and reading, P/N or letter grading.

112A-112B-112C. Advanced Spoken Egyptian Ara-bic. (4–4–4) Three hours. Study of Egyptian colloquial Arabic for heritage speakers or students of non-Arabic dialect of Egypt. Training in listening, speaking, and reading. P/N or letter grading.


112A-112B-112C. Advanced Spoken Egyptian Ara-bic. (4–4–4) Lecture, three hours. Study of Egyptian colloquial Arabic for heritage speakers or students who have completed courses 1A, 1B, 1C. P/N or letter grading.

115. Studies in Arabic Dialectology. (4) Lecture, three hours. Introduction to one spoken dialect of Ara-bic, focusing on listening and linguistic comprehen-sion. Dialects vary from year to year based on student interest and instructor availability and may include Iraqi, Levantine, North African, or Gulf Arabic. May be repeated for credit. P/N or letter grading.

116A-116B-116C. Elementary Arabic Islamic. (5–5–5) Lecture, five hours. Course 116B is requisite to 116C, which is requisite to 116C. Introduction to dialect of Arabic spoken in contemporary Iraq, with emphasis on conversational proficiency. Recognition and pro-ducing of sounds of Arabic and basic vocabu-lary, grammar, idiomatic expressions, and relevant cultural references through dialogues and other conversational exercises. P/N or letter grading.

120. Islamic Texts. (4) Lecture, four hours. Requi-site: course 103C. Readings from Qur’an, Tafsir, and Maqamiri’s topography. Historians studied either to deter-mine usefulness, research tools, and problems in Islamic his-tory, three hours. Readings in English; knowledge of foneticism, translation, and marketing. Genres may in-clude poetry, libretti, novels of terror; memoirs by women and/or by refugees and exiles; 19th- and 20th-century travel narratives; Arabic romantic poetry; literature of pre-1948; Arab novel. Areas may range from generic look at Arab world to narrow focus on Maghreb or one country such as Algeria, Palestine, Iraq, Lebanon, or Egypt. May also be organized around Arabic literatures written in one specific lan-guage, namely English, Arabic, or French. Letter grading.

155. 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 Ara-bic and Jewish cultures and to recognize Islamic cul-ture as vital force in European life and letters. P/N or letter grading.

171. Cultural Area of Maghrib (North Africa). (4) (Same as Anthropology M166Q and History M108C.) Lecture, three hours. Designed for upper-division literature major. Topics may include contributions of others in modern Arab culture; East-West debate; memory, trauma, and memory formation; and, of course, globalization, oil, and cultural insurgency; Arab culture in transnational context or questions of reception, ex-oticism, translation, and marketing. Genres may in-clude prison narratives; novel of terror; memoirs by women and/or by refugees and exiles; 19th- and 20th-century travel narratives; Arabic romantic poetry; literature of pre-1948; rise of Arab novel. Areas may range from generic look at Arab world to narrow focus on Maghreb or one country such as Algeria, Palestine, Iraq, Lebanon, or Egypt. May also be organized around Arabic literatures written in one specific lan-guage, namely English, Arabic, or French. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, 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 credit. Indi-vidual contract required. P/N or letter grading.

199. Directed Research or Senior Project in Ara-bic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual in-teresting project or thesis. May be organized either as an individual study or an undergraduate lecture course. Exploration of topics in greater depth through supplemental read-ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re-quired. Honors content noted on transcript. Letter or S/U grading.

Graduate Courses

220. Seminar: Islamic Texts. (4) Seminar, three hours. Major Islamic thinkers and their works from clas-sical period to modern times. Coverage of doc-trines and hermeneutics of various schools of thought in Islam, such as Ahl al-sunna wa’l-jama’a, Shi’a, Mu’tazilia, and Sufis. May be organized around one author and his works, multiple authors and their work, or specific topic with representative readings from various schools. Exploration of secondary litera-ture in Arabic and other languages for future re-search papers. May be repeated for credit. S/U or letter grading.

231. Texts in Judeo-Arabic. (4) (Same as Hebrew M231.) Lecture, three hours. Requisites: course 102C, Hebrew 102C. Readings in Judeo-Arabic texts by Mai-tmondies (medieval religion, medicine, philosophy) and more recent texts in Judeo-Arabic dialects of Iraq and Egypt, with discussion of grammar and devia-tions from norms of classical Arabic. S/U or letter grading.

240A. Seminar: Arab Geographers. (4) Seminar, three hours. Introduction to large body of literature on medieval Islamic history. Selected readings in Arabic that represent cross-section of Islamic historical writ-ings, including Ibn Ishaq’s Sira, Waqidi’s Maghazi, Baladhuri’s Futuhi, Tabari’s Tarikh, digests of Ya’qubi and Mas’udi, Ibn Khalid’s Muqaddima, and Ma-dur’s Topographia. Historical study to deter-mine their reliability as sources or their view of history and its theoretical foundations. Exploration of sources, method, and problems in Islamic his-tory. May be repeated for credit. S/U or letter grading.

240B. Seminar: Arab Geographers. (4) Seminar, three hours. Introduction to large body of literature on medieval Islamic geographers. Selected readings in Arabic that represent cross-section of Islamic geo-graphical writings distributed over number of dis-ciplines 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.

158FL. Special Studies: Readings in Arabic. (2) Seminar, two hours. Requisite: course 102C. Stu-dents must be concurrently enrolled in affiliated main course. Readings and additional work in Ar-baic to enrich and augment work assigned in main course, including writing, research, and other exer-cises. May be repeated for credit. P/N 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. Individual contract required. P/N or letter grading.
498. Arabic Language Pedagogy Course. (2) Seminar, three hours. Taught in English and Arabic. Discussion of multiple topics pertaining to Arabic language teaching and learning. Content designed to address Arabic language pedagogy, with emphasis on current issues and applications. Projects on different language teaching methodologies. Activities include lectures, classroom observations, and teaching demonstrations. Participants collaborate on projects that investigate topics related to teaching of second language skills, such as listening, speaking, reading, and writing. S/U grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Armenian

Lower-Division Courses

19. Fritz Lux Freshman Seminars. (1) Seminar, one hour. Limit 10. Open to students. Approaching literary culture. Students interested in editing and/or translating manuscripts of Armenian should contact instructor to determine appropriate enrollment level. Continuing introduction to Armenian 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 oral and written form. May be taken independently for credit. P/NP or letter grading.

50C. Lower-Division and 51C. Upper-Division (5) Lecture, three hours. Limit 20. Open to students. History of Armenian language as reflected in literature and art. Discussion of multiple topics pertaining to Armenian languages, language attitudes with ideologies, domains of language use, psychological restraints of heritage languages. Exploration of issues such as economic factors in creation of works of art (literature, painting, sculpture, etc.) and social function these works in themody, and definition of heritage language and other relevant theories of gender, globalization, and postcolonial cultural studies. S/U or letter grading.

275. Encountering Armenian Manuscripts: Introduction to Arabic Paleography and Critical Edition of Manuscripts. (4) Lecture, three hours; discussion, one hour. Requisite: course 103C. Introduction to Arabic paleography and how to prepare editions of medieval manuscripts with critical apparatus and stemma. During past decades enormous number of previously unknown Armenian manuscripts have been discovered. While vast range of medieval texts have been published, many are written in a quill which makes it very difficult to discover language from which large number of manuscripts remain unpublished. UCLA has outstanding collections of Near Eastern manuscripts in Arabic, Persian, and Ottoman Turkish, primarily recorded by philologist, scholar, and orientalist. Reading in English translations of different Maghrebian languages (particularly Arabic and French) in conjunction with theories of language and linguistic pluralism, sociocultural transformation, and how other relevant theories of gender, globalization, and postcolonial cultural studies. S/U or letter grading.

101A-101B-101C. Elementary Modern Western Armenian. (5–5–5) Lecture, five hours. Course 101A is recommended requisite to 101B, which is recommended requisite to 101C. Students with knowledge of Armenian should contact instructor to determine appropriate enrollment level. Armenian grammar, conversation, and exercises. P/NP or letter grading.

102A-102B-102C. Intermediate Modern Western Armenian. (5–5–5) Lecture, five hours. Recommended requisite: course 1C. Students with knowledge of Eastern or Western Armenian 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 cultural issues through readings from critical essays, editorials, short stories, and poems written since World War II and film showings. Emphasis on enhancing students’ 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. Requisite: course 1C or 4C. Exploration of history of Armenian language as reflected in its two standard versions (Western and Eastern), then retracing of historical development through formation of New Armenian (17th century), Middle Armenian (17th through 18th centuries) and to its 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 preliterary period. P/NP or letter grading.

120. Language in Diaspora: Armenian as a Heritage Language. (4) Lecture, three hours. Comprehensive examination of status of Armenian as heritage language in diasporic context. Introduction to diaspora, particularly in Armenian context, and to heritage languages and heritage learners. Review of development of modern standards of Armenian (Eastern and Western), and special consideration of the 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, and the language use of language use variants (i.e., anxiety, fear, etc.) connected with speaking heritage languages, language attitudes with ideologies, and language in the construction of identity. P/NP or letter grading.

130. Armenian Civilizations Under Bagratid Dynasty. 884 to 1064. (4) Lecture, four hours. Interdisciplinary investigation of interface between sociopolitical and economic factors in creation of 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. Faculty inquiry into investigation of rise and fall of unique form of Armenian political establishment established outside homeland and examination
of degree to which its 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. Recognition of formal music study and experience as vocalist or instrumentalist desirable but not essential. Introduction to history, tradition, and scope of music of Armenia. Focus on number of different genres and approaches, and interaction between music and culture, society, and history. P/NP or letter grading.

150A. Survey of Armenian Literature in English. (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 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and features of significant Armenian playwrights, with focus on their role as commentators on contemporary mores and as agents for social reform. Concurrently scheduled with course C252. Letter grading.

C153. Art, Politics, and Nationalism in Modern Armenian Literature. (4) Lecture, four hours. Examination of role of literature in 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.

C155. Issues in Armenian American Literature and Culture. (4) Lecture, four hours. Preparation: reading knowledge of modern Eastern and Western Armenian. Theoretically informed exploration of some of most salient questions related to Armenian American community as reflected in its literature and other cultural artifacts in interaction with its pluralistic American ambience. Concurrently scheduled with course C255. P/NP grading.

160A-160B. Armenian Literature of 19th and 20th Centuries. (4-4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Reading of texts and discussion of various genres of modern Armenian literature within context of Armenian cultural renaissance. 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. Offered in summer only. P/NP or letter grading.

170. Armenian Poetry, 1800 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 poetic form, aesthetic, continuity and innovation under impact of modernism, and employment of poetic structure as medium for expression of deeper philosophic 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.


M188. 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 and instructor change. P/NP or letter grading.

M189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. As designated 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.

M196. 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 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.

M197. 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. Assignments and numerical evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

M199. 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. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

M230A-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) through readings in narrative prose texts. Letter grading.

M231A-231B-231C. Intermediate Classical Armenian. (4-4-4) Lecture, three hours. Requisite: course 230C. Intensive course equiva lent to comprehensive M171A or M171B. In-depth reading and linguistic analysis of texts related to Philhellenic School of 6th to 8th century and related works up to 19th century. Each course may be taken independently for credit. Letter grading.

M232A-232B-232C. Advanced Classical Armenian. (4-4-4) Lecture, three hours. Requisite: course 231A or 231B or 231C. In-depth reading and linguistic analysis of texts related to Philhellenic School of 6th to 8th century and related works up to 19th century. Each course may be taken independently for credit. Letter grading.

M250A-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.

M251. 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 over past two centuries as result of exposure to European thought and expressive forms. Concurrently scheduled with course C251. S/U or letter grading.

M252. Modern Armenian Drama as Vehicle for Social Critique. (4) Lecture, four hours. Requisite: selected plays from 1668 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 agents for social reform. Concurrently scheduled with course C252. Letter grading.

M253. 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.

M255. Issues in Armenian American Literature and Culture. (4) Lecture, four hours. Preparation: reading knowledge of modern Eastern and Western Armenian. Theoretically informed exploration of some of most salient questions related to Armenian American community as reflected in its literature and other cultural artifacts in interaction with its pluralistic American ambience. Concurrently scheduled with course C255. Letter grading.

M266. 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. S/U or letter grading.

M618. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.

M797. Examination Preparation. (2 to 8) Tutorial, to be arranged. S/U grading.

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, three hours. Required course: course 101B. Hebrew placement test. Course 102A is enforced requisite to 102B, which is enforced requisite to 102C. Not open to native speakers. Amplification of grammatical, reading, and writing texts from modern literature. P/NP or letter grading.

103A-103B-103C. Advanced Hebrew. (4–4–4) Lecture, five hours. Required 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 consult 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. Continuation of course 110B. Reading of prose texts from Hebrew Bible, particularly from Former Prophets (Joshua-Kings). Introduction to certain aspects of historical grammar of biblical Hebrew. Reading and translation of variety of texts from different historical periods of Hebrew language, including texts from Aramaic, Standard, and Late periods. Increased understanding of biblical Hebrew verbal system; teaching them multiple speech acts in both formal and informal contexts and enriching their Hebrew vocabulary and its retention. P/NP or letter grading.

111B-111C. Conversational Hebrew. (3–3) Lecture, two hours; laboratory, one hour. Requisite: course 111A. Course 111B is requisite to 111C. Vocabulary used in daily life, different speech acts in both formal and informal contexts, 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.

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 for various disciplines: Bible study, Jewish history and folklore, sociology, and literary criticism. Development of student proficiency in vocabulary, terminology, and ideas in these fields while enhancing comprehension of complex syntactical structures in Hebrew. May be repeated for credit. P/NP or letter grading.

M113. Contemporary Israeli Short Stories/Novellas and Films in English. (5) Same as Jewish Studies M113.) Lecture, three hours; laboratory, two hours. Exploration of Israeli short stories/novellas and films (translated into English) written since mid-1930s that use, each to varying degree, postmodernist techniques to undermine predominance of modernist-Zionist narrative. Recycling and reexamination of Israeli condition and Zionist condition and skepticism about legitimacy of meta-narratives to redefine blurred outline of Israeli identity and subvert its underpinning formative myths. They simultaneously display loss of faith in modernist narratives and exploration of language including ability of texts to penetrate to its hidden meaning. Using periphery discourses, these texts strive to change modernist aesthetic and power paradigm. P/NP or letter grading.


125. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Requisite: course 103C. Hebrew Bible with the commentaries of Rashi, Ibn Ezra, and/or Nahmanides. May be repeated for maximum of 16 units. Letter grading.

130. Rabbinic Texts. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in Mishnah, Talmud, and/or Midrash. May be repeated for credit.


C140. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 103A, 103B, and 103C, or equivalent knowledge of Hebrew. Study of modern Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C240. Letter grading.

170. Dead Sea Scrolls. (4) Lecture, three hours. Requisite: course 110C. Readings in Hebrew scrolls from Dead Sea Scrolls with focus on grammar, paleography, and biblical interpretation in Dead Sea Scrolls. May be repeated for credit. P/NP or letter grading.

180A-100B. Survey of Hebrew Grammar. (4–4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Descriptive and comparative study of Hebrew grammar: phonology and morphology. Topics include development of Hebrew language from biblical times to present day, its relation to Arabic and other Semitic languages, methods of language expansion in Israeli Hebrew, traditional pronunciation of Hebrew by various Jewish communities, Hebrew contribution to other Jewish languages (Yiddish, Ladino, Judeo-Arabic), P/NP or letter grading.

188FL. Special Studies: Readings in Hebrew. (2) Seminar, two hours. Requisite: course 102C. Students must be concurrently enrolled in an affiliated main course. Primary readings and advanced training in Hebrew. Additional work in Hebrew to enrich and augment work assigned in main course, including reading, writing, and other exercises in Hebrew. P/NP or letter grading.

189HC. Honors Contracts, (1) Tutorial, three hours. Limited to 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 assigned 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 Hebrew. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigning 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 Hebrew. (2 to 4) Tutorial, one hour. Limited to 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


225. Studies in Dead Sea Scrolls. (2 or 4) Seminar, three hours. Requisite: course 120. Critical study of Dead Sea Scrolls, with attention to history of biblical interpretation and role of Dead Sea Scrolls in formative Judaism. Reading in original manuscripts from Dead Sea Scrolls. May be repeated for credit. S/U or letter grading.

230. Rabbinic Hebrew Literature. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) (Same as Arabic M231.) Lecture, three hours. Requisites: course 102C, Arabic 102C. Reading of Judeo-Arabic texts by Maimonides (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. Designed for students who have basic language skills and capacities necessary for reading Biblical Hebrew or Rabbinic Hebrew. Reading, analysis, and interpretation of Hebrew literature composed during Second Temple period. Relevant sources include Chronicles, Ezra-Nehemiah, Ecclesiastes, Ben Sira, Daniel, Dead Sea Scrolls, and other documents from Judean desert, and various apocryphal and pseudepigrapha. Special attention to historical development of Hebrew language and literature in relation to both earlier biblical sources, styles, grammar, and syntax and to subsequent Rabbinic writings. Course builds following skills: reading unpointed texts, mastering distinctive elements of vocabulary, idiom, and syntax of Second Temple Hebrew, and analyzing relationships between biblical and postbiblical sources. May be repeated for credit. S/U or letter grading.

C240. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 103A, 103B, and 103C, or equivalent knowledge of Hebrew. Study of major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C140. Letter grading.

241. Studies in Modern Hebrew Prose Fiction. (4) Seminar, in specific problems and trends in Hebrew prose fiction of the last two centuries. May be repeated for credit.


596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Iranian

Lower-Division Courses

1A-1B-1C. Elementary Persian. (5–5–5) Lecture, six hours. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Not open to students with prior knowledge of Persian. P/NP grading.

8. Elementary Persian: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough
102A-102B-102C. Intermediate Persian. (5-5-5) Lecture, three hours; discussion, one hour. Preparation: 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. Requisite: course 102C. 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. 103A. Introduction to Classical Persian Prose. 103C. Introduction to Contemporary Persian Poetry and Prose.

104. Philosophical Texts. (4) Lecture. Three hours. Reading in English. Introduction to wide selection of philosophical texts in translation. Identification of major philosophical themes in ontology, epistemology, psychology, and cosmology through texts, with emphasis on Persian authors.

M105A. Baha‘i Faith in Iran: History and Sociological Survey. (4) (Same as Religion M105A) Lecture, three hours. Readings in English. An overview of Baha‘i beliefs, history, and sociology. May be repeated independently for credit. P/NP or letter grading.


M105C. Baha‘i Faith in Iran: 20th-Century Iran and the Baha‘is. (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 Baha‘i community, and Baha‘is’ relation to reform movements in Iran. May be taken independently for credit. P/NP or letter grading.

M110A-M110B-M110C. Iran: The Irrigated Heartland. (4-4-4) Lecture, five hours. Requisite: course 102C. Course M110B and course M110C are courses in the series of courses that are combined as a major in the Near Eastern Languages and Cultures Program. May be taken independently for credit. P/NP or letter grading.

M110A. History of Iran to the Achaemenids. (4) Lecture, three hours; discussion, one hour (when scheduled). P/NP or letter grading. M110B. History of the Achaemenid Empire to the Parthian. (4) Lecture, four hours; discussion, two hours. Requisite: course M110A. M110C. History of the Parthian Empire. (4) Lecture, four hours; discussion, two hours. Requisite: course M110B.

M115A-M115B-M115C. Elementary Azeri. (4-4-4) (Same as Turkic Languages 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 comprehension with help of dictionary; ability to write simple compositions; basic conversational skill. P/NP or letter grading.

120. Comparative Study of Six Major Persian Poets. (4) Lecture, two hours; discussion, one hour. Preparation: knowledge of Persian. Lectures in Persian, readings in English and Persian. Comparative study of six major Persian poets from 10th to 14th century who shaped sense of Persian identity and delineated chief distinguishing characteristics of Persian thought and language. May be repeated for credit with consent of instructor. P/NP or letter grading.

130. Intellectual History of Jews of Persia. (4) Lecture, three hours. Readings in English. Introduction to intellectual history of Persia by highlighting select areas of Judeo-Persian studies and focusing on various authors and their work. P/NP or letter grading.

131. Introduction to Judeo-Persian Language and Culture. (4, 4) Lecture, three hours. Preparation: knowledge of Persian equivalent to course 102C. Introductions to history of Judeo-Persian literature and culture to prepare students to read Judeo-Persian texts. P/NP or letter grading.

132. Intermediate Judeo-Persian Literature and Culture. (4) Lecture, three hours. Enforced requisites: courses 102C, 131. Literary study of Judeo-Persian literature, as segment of Iranian classical literature. Judeo-Persian literary genres, in forms of prose and verse, compared with their parallel genres in context of Iranian literature. Textual study of Judeo-Persian manuscripts, both print and cursive, and their variations depending on time period or locality. P/NP or letter grading.


141. Persian Analytical Prose. (4) Lecture, three hours. Requisite: course 102C. Study of selected analytical and expository prose texts, with emphasis on philosophy, sciences, literary criticism, and history. May be repeated for credit with consent of instructor. P/NP or letter grading.

142. Persian Popular Ethics. (4) Lecture, three hours. Requisite: course 102C. Study of major Persian works on popular ethics that have helped shape normative social, cultural, and political values in Iran. 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. May be taken independently for credit.

161A-161B-161C. Elementary Middle Iranian. (4-4-4) Lecture, three hours. Preparation: knowledge of Persian desirable. Course 161A is requisite to 161B, which is requisite to 161C. Studies in grammars and texts of Middle Iranian languages (e.g., Middle Persian, Parthian, Sogdian, Khotanese, Bactriân). May be repeated for credit with consent of instructor. P/NP or letter grading.

CM163. Archaeology of Iran. (4) (Same as Ancient Near East CM163,) Lecture, three hours. Designed to introduce students to Iranian archaeology from pre-historic through Achaemenid times. Concurrently studied with course CM269. P/NP or letter grading.

169. Civilization of Pre-Islamic Iran. (4) Survey of Iranian culture from the beginning through Sassanian times.

170. Religion in Ancient Iran. (4) History of religion in Iran from the beginning to the Mohammadan conquest; Indo-Iranian background, Zoroastrianism, Manichaeism, Mazdaism.

M175. Introduction to History and Culture of Iran in the Modern Era. (4) (Same as History M177 and Jewish Studies M178,) Lecture, three hours. Introduction to political, intellectual, cultural, and socioeconomic status of Iranian Jews. Exploration of history of Iranian Jews from ancient period throughout history, with focus on post-Middle Ages to present time. Topics, studied from perspective of Iranian cultural and intellectual history, include identity and status, religious tolerance versus forced conversion, Iranian Jewish emancipation, and dynamic symbiosis between Iranian Jews and other Iranians. P/NP or letter grading.

187. Variable Topics in Iranian Studies. (4) Lecture, three hours. Requisite: course 102C. Variable topics. May be scheduled as adjunct to upper-division lecture course. May be repeated for credit in specific term. May be repeated for credit. P/NP or letter grading.

188FL. Special Studies: Readings in Iranian. (2) 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 Persian to enrich and augment work assigned in main course, including reading, writing, and other exercises in Iranian. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. 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.

197. Individual Studies in Iranian. (2) 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 Islamic Studies. (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

M210. Topics in Ancient Iranian History. (4) (Same as Ancient Near East M208 and History M210.) 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 in context of interaction of Sufism and poetic creativity. May be repeated twice for credit.

M222A-M222B. Vedic. (4-4) (Same as Indo-European Studies M222A-M222B and South Asian M222A-M222B.) Lecture, three hours. Preparation: knowledge of Sanskrit equivalent to South Asian 110C. Characteristics of Rig-Vedic hymns. Only course M222B may be repeated for credit. S/U or letter grading.


231A-231B-231C. Advanced Middle Iranian. (4-4-4) Lecture, three hours. 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.


CM259. Archaeology of Iran. (4) (Same as Ancient Near East CM259.) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Achaemenid times. Concentrately 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.

M50. Islam and Other Religions. (4) (Same as Arabic M50.) Lecture, three hours; discussion, one hour. Students explore historical cases and modes of interaction between Muslims and non-Muslims in plural societies. Consideration of axis ques-tions such as how does Qur’an reflect religious plural-ity; how does it situate Islam vis-à-vis its alterna-tives; what encounters did rapid expansion of Islam bring about in diverse societies; how did Islam and other religions change through debate, war, and ex-change of ideas; what roles has political power played in conditioning interreligious interaction; how have conversion and hybridity affected what it means to be Muslim; what is different about interreligious interac-tions in secular states and societies; and how is past invoked to justify opinions and policies today. Investi-gation of these questions by conducting micros-tudies: close readings of sources through theoretical lens, P/NP or letter 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 seminars, papers, and 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.

B9HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-signs as adjunct to lower-division lecture course. In-dividual study with lecture course instructor to ex-plore 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.

99. Student Research Program. (1 to 2) Tutorial (su-pervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-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 Under-graduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M107. Islam in West. (5) (Formerly numbered Islamics M107.) (Same as Arabic M107 and Religion M107.) Lecture, three hours; discussion, one hour. Acquisition of understanding of basic doctrines and practices of Islam. Survey of history of Islam in West, with focus on U.S. and France. Analysis of issues rel-evant to growth and development of selected Muslim communities in West. Exposure to diverse expres-sions of Islam through independent research on Muslim communities and institutions in U.S. Develop-ment of strong analytical and writing skills. P/NP or letter grading.

M110. Introduction to Islam. (5) (Formerly numbered Islamics M110.) (Same as Religion M109.) 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.

M111. Introduction to Islamic Archaeology. (4) (Formerly numbered Islamics M111.) (Same as Art History M1119C and Middle Eastern Studies M111.) Lecture, three hours. From earliest monuments of Islam in Arabia and Jerusalem to humble remains of small Egyptian polities. Focus on archaeological 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 in the birth of Islam in 7th century to early Ot-toman period in 16th and 17th centuries, which are traceable in material records. Assessment of effec-tiveness 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 M112, and Middle Eastern Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest in mid-7th century CE. Ac-cording to material evidence such as ceramics, tex-tiles, architectural forms, and building techniques, it is functionally impossible to separate pre-Islamic Chris-tian Egypt from early Islamic Egypt. Although popula-tion may have become largely Muslim by 10th cen-tury, 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 cen-tury, charting changes and continuities in material cul-ture and shifts in human geography and land use. P/NP or letter grading.

130. Shi’a in Islamic History. (4) (Formerly num-bered Islamics 130.) Seminar, three hours; discussion, one hour. Rise and development of Shi’a Islam, its doctrines, and practices; major branches: Twelvers, Ismailis, Yazidis; their contribution to Islamic thought and civilization; modern trends of reinterpretation and reform. Letter grading.

151. Contemporary Islamic Thought. (4) (Formerly numbered Islamics 151.) Lecture, 90 minutes; discus-sion, 90 minutes. Recommended requisite: course M110. Based on original writings of major Islamic thinkers in English translation, provides balanced pic-ture of enormous ideological variety found in contem-porary Muslim world. Examination of representative writings from wide spectrum of modern Islamic intel-lectuals and writers. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Individual study in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-signed as adjunct to upper-division lecture course. In-dividual study with lecture course instructor to ex-plore 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.

197. Individual Studies in Islamic Studies. (2 to 4) (Formerly numbered Islamics 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 tan-gible evidence of mastery of subject matter required. May be repeated for maximum of 4 units. Individual honors contract required. Letter grading.

Graduate Courses

200. Introduction to Islamic Studies. (4) Seminar, three hours. Introduction to various disciplines and methods employed in study of Islamic histories, cul-tures, and societies, with special emphasis on method-ologies 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) (Formerly numbered Islamics 201.) Seminar, three hours. Preparation: good reading knowledge of Arabic, English, and one other Western language. Comprehensive cov-erage of Arabo-Islamic sciences that formed matrix of Islamic education. Survey of historical developments in following disciplines: Arabic language and literature, Qur’anic sciences, traditions, jurisprudence, theology, and Sufism. Letter grading.

291A. Variable Topics in Islamic Studies. (4) Sem-inar, three hours. Selected topics. May be repeated for credit with topic change. S/U or letter grading.

596. Directed Individual Study. (2 to 8) (Formerly numbered Islamics 596.) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.
Jewish Studies

Lower-Division Courses

M10. Social, Cultural, and Religious Institutions of Judaism. (5) (Same as Religion 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.

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty hour. Discussion of and critical thinking about topics

135. Jewish Law. (5) Lecture, three hours. Introduc-
tion to Jewish law from biblical literature to modern legal systems. Comparison of Jewish legal systems to modern state, with emphasis on integration of ethical di-

M141. Judaism: Ideology and Practice in Making of Jewish State. (4) (Same as Middle Eastern Studies M141.) Lecture, three hours; discussion, one hour. History of Zionism; role of Jews in shaping of modern Israel—its state, religious groups, and to great diversity of cultures; that it was envisaged as safe haven for Jewish people 

M150A-150B. Hebrew Literature in English. (4–4) Lecture, three hours. Nature of Jewish folklore; narrative, folk song, folk art, folk religion, and methods and perspectives used in their analysis. P/NP or letter grading.

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 politics, and dynamic culture—from its foundation in 1948 to present, in context of global political and cultural change and changing Jewish world. Tension be-

M174. 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, Amos Oz, and Yitzhak Ben Nier) that were translated to English and had filmic adaptations. 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.

178. M151A-151B. Modern Jewish Literature in English. (4–4) Lecture, three hours. Analysis of formal aspects of each work. P/NP or letter grading.

M152B. Medieval Jewish History. (4) (Same as Middle Eastern Studies M182B.) Lecture, three hours. Survey of medieval Jewish history, comparative immigration and migration patterns, and frontiers and borderlands, while providing overview of historical methodologies and interpretation. Examination of ethnic and methodological implications of writing history in di-

M182A. Ancient Jewish History. (4) (Same as Middle Eastern Studies M182A.) Lecture, three hours. History of Ancient Israel: Bible and Apocrypha. (Same as Comparative Literature M182A.) Survey of literature of ancient Israel; its original literary forms; rabbinic literature, three hours. Examination of evolution of Israel—its changing society, volatile domestic and foreign poli-

M182B. Medieval Jewish History. (4) (Same as Middle Eastern Studies M182B.) Lecture, three hours. Topics include development of Jewish identities, communities, and cultures. 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 interpretation. Examination of ethnic and methodological implications of writing history in di-

M183. Jewish Civilization: Encounter with Great World Cultures. (4) (Same as History M183A and Reli-

M181. Topics in Jewish History. (4) (Same as History M181.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of major issues in Jewish history. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M178SL. Jewish Thought, Politics, and Ethics: From Theory to Practice. (4) (Formerly numbered History M178SL.) Seminar, three hours; fieldwork, two hours. Designed for juniors/seniors. Ex-


M140A-140B. American Jewish History. (4–4) Lecture, three hours. Examination of social and cultural history of American Jewish community from its incep-

140A. 1654 to 1914; 140B. 1914 to 1948. Three hours. 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 interpretation. Examination of ethnic and methodological implications of writing history in di-

M146. Modern Israel in Film. (4) (Same as Middle Eastern Studies M146.) Lecture, three hours. Exam-

M145. Jewish Diaspora. (4) Lecture, three hours. Topics include development of Jewish identities, communities, and cultures. 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 interpretation. Examination of ethnic and methodological implications of writing history in di-

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: role of Jews in shaping of modern Israel—its state, religious groups, and to great diversity of cultures; that it was envisaged as safe haven for Jewish people but has been characterized by insecurity and ongoing war; that, founded as democracy, it contends with multiple strains on its democratic system, such as tensions between Jews and Arabs, secular and religious Jews, and disparate ethnic groups. P/NP or letter grading.

143. Introduction to Jewish Folklore. (4) Lecture, three hours. Nature of Jewish folklore; narrative, folk song, folk art, folk religion, and methods and perspectives used in their analysis. P/NP or letter grading.

142. 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 politics, and dynamic culture—from its foundation in 1948 to present, in context of global political and cultural change and changing Jewish world. Tension be-

141. Ancient Israel: Bible and Apocrypha. (Same as Comparative Literature M181.) Lecture, three hours. Study of literary responses of Jews to modernity, its challenges, and threats. Readings in texts originally written in English or translated from Hebrew, Yiddish, German, Russian, French, and Italian. Analysis of formal aspects of each work. P/NP or letter grading.

M150A-150B. Hebrew Literature in English. (4–4) Lecture, three hours. Each course may be taken inde-

M151A-151B. Modern Jewish Literature in English. (4–4) Lecture, three hours. Each course may be taken inde-

M152A. Diaspora Literature. (Same as Comparative Literature M182A.) Study of literary culture of an-

M150A. Literary Traditions of Anc-

M151A-151B. Modern Jewish Literature in English. (4–4) Lecture, three hours. Each course may be taken inde-


M156. Jewish Secularism, Nationalism, and the State. (4) (Same as Middle Eastern Studies M156.) Lecture, three hours. Examination of modern Jewish political ideologies and interpretation. Examination of ethical and methodological implications of writing history in di-

M152B. Medieval Jewish History. (4) (Same as Middle Eastern Studies M152B.) 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, 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.

M152C. Modern Jewish History. (4) (Same as His-

M182C. Modern Jewish History. (4) (Same as His-

M182B. Medieval Jewish History. (4) (Same as His-

M181A. Topics in Jewish History. (4) (Same as His-

M180A. Diaspora Literature. (Same as Comparative Literature M180.) Study of literary culture of an-

M150. Literary Traditions of Anc-

M150A-150B. Hebrew Literature in English. (4–4) Lecture, three hours. Each course may be taken inde-

M151A-151B. Modern Jewish Literature in English. (4–4) Lecture, three hours. Each course may be taken inde-

M151. Jewish Mysticism, Magic, and Kabbalah. (4) (Same as Religion M151.) Lecture, three hours. Ex-

M140A. Jewish Civilization: Encounter with Great World Cultures. (4) (Same as History M184A and Re-

M180A. Diaspora Literature. (Same as Comparative Literature M180.) Study of literary culture of an-


M152A. Diaspora Literature. (Same as Comparative Literature M182A.) Study of literary culture of an-

M141. Judaism: Ideology and Practice in Making of Jewish State. (4) (Same as Middle Eastern Studies M141.) Lecture, three hours; discussion, one hour. History of Zionism; role of Jews in shaping of modern Israel—its state, religious groups, and to great diversity of cultures; that it was envisaged as safe haven for Jewish people but has been characterized by insecurity and ongoing war; that, founded as democracy, it contends with multiple strains on its democratic system, such as tensions between Jews and Arabs, secular and religious Jews, and disparate ethnic groups. P/NP or letter grading.
M184B. History of Anti-Semitism. (4) (Same as History 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. Approaches to Jewish Evidence. (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; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of history of State of Israel from 1948. P/NP or letter grading.

M187. Holocaust in Literature. (4) (Same as Comparative Literature M165.) Lecture, three hours. Investigation of how Holocaust informs variety of literary and cinema works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to undergraduate lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Jewish Studies. (4) Seminar, three hours. Research seminar on selected topics. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP or letter grading.

197. Individual Studies 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. 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 Jewish Studies. (1 to 5) Lecture, 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


Middle Eastern Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M50A. First Civilizations. (8) (Same as Ancient Near East M50A.) Lecture, three hours; discussion, one hour. Survey of major civilizations of ancient Near East—Egypt, Israel, and Mesopotamia—with attention to emergence of writing, monotheism, and urban societies. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) (Same as Ancient Near East M50B and Religion M50.) Lecture, three hours; discussion, one hour. Examination of three major monotheisms of Western cultures—Judaism, Christianity, and Islam—historically and conceptually. 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.

50C. Making and Studying Modern Middle East. (5) Lecture, three hours; discussion, one hour. Survey of modern Middle Eastern cultures through readings and films from Middle East and North Africa. 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 over one full 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

M111. Introduction to Islamic Archaeology. (4) (Same as Art History M119C and Islamic Studies M111.) Lecture, three hours. Earlier 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), Iran, North Africa, and Spain. Profound cultural transformations occurred from birth of Islam in 7th century to early Ot- tomans in 16th and 17th centuries, which are traceable in material records. Aim to understand 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 Islamic Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest in mid-7th century CE. According to material evidence, influence of textual, architectural, 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 ecclesiastical architecture from 6th to 19th cen- tury, charting changes and continuities in material cul- ture 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 his- torical scholarship as well as in popular media and public spaces. Struggles over image of past have be- come central (as in many other societies) to debates about identity in present and directions, goals, and hopes for future. Exploration of ways in which strug- gles over past have shaped Israeli present. Examina- tion of historiographical definitions in range of media to make sense of ever- changing past, ways in which it shapes political, ideo- logical, and cultural identities in present, and where models of events are between divergent ideas of work historians do. Examination of conflicting read- ings of past and its representation in Israeli historiog- raphy and in shaping of Israeli collective memory and identity. Course scheduled with course 222Z. P/NP or letter grading.

M133. Bible and Qur’an. (4) (Same as Religion M133.) Lecture, three hours. Survey of Hebrew Bible/ Old Testament, New Testament, and Qur’an to famili- ize students with content of scriptures of Judaism, Christianity, and Islam, and sociocultural background from which these multiform texts emerged, and to explore major themes and consider variety of ap- proaches 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 so- ciety, volatile domestic and foreign politics, and dyna- mics of culture—from its founding to its present, in context of global political and cultural change and changing Jewish world. Tension between Israel’s con- ception 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 envis- aged as safe haven for Jewish people but has been characterized by insecurity and ongoing war; that, founded as democracy, it contends with multiple strains on its democratic system, such as tensions between Jews and Arabs, secular and religious Jews, and disparate ethnic groups. P/NP or letter grading.

M179. Independent Study 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 history, from ideological origins to political, cultural, and social foundations of State of Israel. P/NP or letter grading.

177. Variable Topics in Middle Eastern Studies. (4) Lecture, three hours; Variable topics; consult selectively. Classic forms for specific term. May be repeated for credit. P/NP or letter grading.

178. Variable Topics. (4) (Same as Religion M178B.) Seminar, three hours. Interdisciplinary approach to some major topics in study of religion and Middle Eastern studies. May be repeated with topic change. P/NP or letter grading.

179SL. Movement in Art, Philosophy, and Daily Life. (5) (Same as Comparative Literature M179SL.) Seminar, three hours; fieldwork, three hours. Exploration of relation between humans and world. Only rele- vant output of brain, irrespective of what may or may not go on inside it, is control over movements. In living animals, sentence or consciousness permits subjects to integrate often complex input and decide on course of action. Similarly, ownership and agency are insep- arably associated with biological systems that control our movements. Movements play vital part in con- structing 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.
Graduate Courses

200. Bibliography and Method of Near Eastern Languages and Literatures. (4) Lecture, two hours. Required for MA degree. Introduction to bibliographical resources and training in methods of research in various areas of specialization offered by department. May be repeated for credit. S/U or letter grading.

201. Study of Religion: Theory and Method. (4) Seminar, three hours. Preparation: familiarity with at least two major world religions. Designed for advanced undergraduate and graduate students. Introduction to variety of theories and methods used in academic study of religion. In attempt to demonstrate importance that historical, cultural, and social exigencies play in development of religious traditions, discussion of theories comparatively and in their historical context, with focus on presuppositions and core concepts and implications of each theory. Letter grading.

210. Survey of Afro-Asiatic Languages. (4) Lecture, three hours. Survey of structures of number of representative languages from various major branches of Hamito-Semitic (Afro-Asiatic) language family. S/U or letter grading.

C222. History, Memory, and Identity in Israel. (4) Seminar, three hours. Israel society was born in effort to reshape images of Jewish past and has been shaken by many debates over history, recent and ancient events, and how these are represented by historical scholarship as well as in popular media and public spaces. Struggles over image of past have become central 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, ways in which it shapes political, ideological, and cultural identities in present, and where these interact between popular discourse and work historians do. Examination of conflicting readings of past and its representation in Israeli historiography and in Israeli collective memory and identity. Concurrently scheduled with course C122. S/U or letter grading.

241. Folklore and Mythology of Near East. (4) Lecture, three hours. Exploration of variety of traditions in ancient Near East, with focus on creation myths, concepts of cosmos, origins of mankind, and boundaries between divine and human realms. Answers to questions concerning origins of evil, pursuit of wisdom, expectation for life beyond death, and quest for immortality are all sought in folklore of ancient religions. Directed readings of ancient literatures. S/U or letter grading.

290. Seminar: Paleography. (4) Seminar, three hours. Provides students with ability to cope with varieties of manuscripts. S/U or letter grading.

Near Eastern Languages

Lower-Division Courses

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

CM214. Teaching and Learning of Heritage Languages. (4) (Same as Asian CM224 and Slavic CM214.) Lecture, three hours. Introduction to issues relevant to heritage language learners (HL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLs; linguistic, demographic, sociolinguistic, and sociopolitical factors. Designed for advanced undergraduate and graduate students. Introduction to various theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame concepts, colonial and post-colonial Mediterranean historiographies, anthro- pology, Mediterraneanism, French Mediterraneans, Jewish Mediterranean, colonial and post-colonial sea and its relationship to Mediterranean Sea and mobility. Intracultural and intercultural communication; understanding of the Mediterranean as springboard for literacy instruction; optimization of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM114. S/U or letter grading.

M248. Anthropology and History of Mediterranean. (4) (Same as Anthropology M248 and History M248.) Seminar, three hours. Introduction to and anthropological writings about Mediterranean. Draws upon a 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 historiographies, anthropology, Mediterraneanism, French Mediterraneans, Jewish Mediterranean, colonial and post-colonial sea and its relationship to Mediterranean Sea and mobility. Intracultural and intercultural communication; understanding of the Mediterranean as springboard for literacy instruction; optimization of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM114. S/U or letter grading.

CM114. Teaching and Learning of Heritage Lan- guages. (4) (Same as Asian CM124 and Slavic CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLs; linguistic, demographic, sociolinguistic, and sociopolitical factors. Designed for advanced undergraduate and graduate students. Introduction to various theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame concepts, colonial and post-colonial Mediterranean historiographies, anthropology, Mediterraneanism, French Mediterraneans, Jewish Mediterranean, colonial and post-colonial sea and its relationship to Mediterranean Sea and mobility. Intracultural and intercultural communication; understanding of the Mediterranean as springboard for literacy instruction; optimization of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM114. P/NP or letter grading.

Upper-Division Courses

CM114. Teaching and Learning of Heritage Lan- guages. (4) (Same as Asian CM124 and Slavic CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLs; linguistic, demographic, sociolinguistic, and sociopolitical factors. Designed for advanced undergraduate and graduate students. Introduction to various theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame concepts, colonial and post-colonial Mediterranean historiographies, anthropology, Mediterraneanism, French Mediterraneans, Jewish Mediterranean, colonial and post-colonial sea and its relationship to Mediterranean Sea and mobility. Intracultural and intercultural communication; understanding of the Mediterranean as springboard for literacy instruction; optimization of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM114. 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.

Semiotics

Lower-Division Courses

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Semiotics

Lower-Division Courses

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
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. 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.


140A-140B. Elementary Akkadian. (4-4) Lecture, three hours. Elementary grammar and reading of texts in standard Babylonian.

141. Advanced Akkadian. (4) Lecture, three hours. Advanced Akkadian syntax and grammar; reading of Akkadian literary texts. May be repeated for credit. P/NP or letter grading.

142. Akkadian Literary Texts. (4) Lecture, three hours. Selected readings from Akkadian myths and epics, with introduction to historical tradition of works and their literary structure. May be repeated for credit. P/NP or letter grading.

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. 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.

197. Individual Studies in Semitics. (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 Semitics. (2 to 4) Tutorial, four 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


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 in Lower Semitic Languages and Literatures. (4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

240. Seminar: Akkadian Language. (4) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. May be repeated for credit. S/U or letter grading.

240X. Seminar: Akkadian Language. (1) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. Course for students who participate regularly in class meetings but without the homework required in course 240. May be repeated for credit. S/U grading.

241. Seminar: Akkadian Literature. (4) Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. May be repeated for credit. S/U or letter grading.

241X. Seminar: Akkadian Literature. (1) Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. Course for students who participate regularly in class meetings but without the homework required in course 241. May be repeated for credit. S/U grading.

280A. Seminar: Comparative Semitics. (4) Seminar, two hours. 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.


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.

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. Tutorial, three hours. Preparation: entrance examination. 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. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Individual contract required. Honors content noted on transcript. Letter grading.

Upper-Division Courses

101A-101B-101C. Elementary Turkish. (5-5-5) Lecture, five hours. Course 101A is requisite to 101B, which is requisite to 101C. Grammar, reading, conversation, and elementary composition drills. P/NP or letter grading.


111A-111B-111C. Elementary Uzbek. (4-4-4) Lecture, three hours; laboratory, two hours. Elementary grammar, reading, and composition exercises; elementary conversation.

112A-112B-112C. Advanced Uzbek. (4-4-4) Lecture, three hours; laboratory, two hours. Descriptive Uzbek grammar, reading, and analysis of Uzbek literary and folkloric texts. High-style composition and conversation.

M115A-M115B-M115C. Advanced Azeri. (4-4-4) Seminar, three hours; discussion, one hour; laboratory, one hour. Preparation: 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: entrance examination. 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.
197. Individual Studies in Turkic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Turkic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

210A. Readings in Ottoman I. (4) Lecture, three hours. Examination of printed texts in Ottoman from 19th and 20th centuries to improve student competence to read, transcribe, and translate Ottoman texts. Readings include selections from newspapers, almanacs, travel books, and literary and historical texts. S/U or letter grading.


596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


NEUROBIOLOGY
David Geffen School of Medicine
73-235 Center for Health Sciences Box 951763 Los Angeles, CA 90095-1763

Neurobiology 310-206-3944 Department e-mail

Paul E. Micevych, PhD, Chair
Felix E. Schweizer, PhD, Vice Chair, Education

Professors

Michele A. Basso, PhD, in Residence
James W. Biele, PhD
Nicholas C. Brecha, PhD
Dean V. Buonomano, PhD
S. Thomas Carmichael, MD, PhD
Jerome Engel, Jr., MD, PhD (Jonathan Sinay Professor of Epilepsy)
Jack L. Feldman, PhD
Mark A. Frye, PhD
David L. Glanzman, PhD
Ronald A. Harper, PhD
Leif A. Havton, MD, PhD, in Residence
Carolyn R. Houser, PhD
Baljit S. Khakh, PhD
Mayank R. Mehta, PhD
Paul E. Micevych, PhD (Edith Agnes Plumb Professor of Neurobiology)

Bennett G. Novitch, PhD (Ethel Scheibl Professor of Neuroscience)
Carlos Portera-Cailliau, MD, PhD, in Residence
Dario L. Ringach, PhD
Alapattapalli A. Sathyan, PhD, in Residence
Felix E. Schweizer, PhD
Alcino J. Silva, PhD (Eleanor I. Leslie Professor of Pioneering Brain Research)

Michael V. Stevens, MD, PhD
Catia Sternini, MD, in Residence
Joshua T. Trachtenberg, PhD
David S. Williams, PhD, in Residence

Professors Emeriti

P. Dean Bok, PhD (Dolly Green Professor Emeritus of Ophthalmology)
John H. Campbell, PhD
Edwin L. Cooper, PhD
V. Reggie Edgerton, PhD
Robert G. Frank, Jr., PhD
Lawrence Kruger, PhD
Yree V. O’Neill, PhD
John D. Schmohl, MD
José P. Segundo, MD
M.B. Sternman, PhD
Anna N. Taylor, PhD
Jaime R. Villablanca, PhD
Charles D. Woody, PhD

Associate Professor
Samantha J. Butler, PhD

Assistant Professors
Jeffrey M. Donlea, PhD
Weizhe Hong, PhD
Sotiris Masmanidis, PhD

Adjunct Professor
Ronald Szymusiak, PhD

Scope and Objectives

The Department of Neurobiology is a premier research department and a leading force in neuroscience discovery and education at UCLA and worldwide. Department faculty and students work on projects to understand the brain and its role in health and disease.

Medical History

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

107A-107B. Historical Development of Medical Sciences. (4-4) Lecture, three hours. Major contributions of medicine and personal experiences from earliest times. P/NP or letter grading. 107A. Contributions of medicine and personal experiences from earliest times to 1650. 107B. Subject in the period from 1650 through the 19th century. Illustrated lectures, class discussion, and required readings from selected texts.

M169. History of Neurosciences. (4) Same as Neurobiology 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.

Graduate Course


Neurobiology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

106. Functional Neuroanatomy. (4) Lecture/laboratory, three two-hour sessions. Development of neuroanatomy of current importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

M169. History of Neurosciences. (4) (Same as Medical History M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

M171. Variable Topics Research Seminars: Contemporary Biology. (2) (Same as Physiological Science M171.) Seminar, two hours. Limited to undergraduate 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 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 cellular, cellular, and structural organization of nervous system. Specific topic areas include neuronal ultrastructure, cellular neurobiology, neuroanatomy, neural connectivity, and imaging.

M200B. Cell, Developmental, and Molecular Neurobiology. (6) (Same as Neuroscience M200B.) 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. Required for Neuroscience M111A (or M118A or Physics SC). 166. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal transmission, 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. 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.

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 current principles governing synaptic transmission and balanced account of some of most topical areas of field, such as neurotransmission, vitamin and run, and fast exocytosis. Laboratory sessions review protocols for preparing samples. In-depth analysis of imagery. Computer laboratory sessions allow demonstration of data processing and interpretation. Three and table discussions provide forum for further inspiration as well as tackling any questions or difficulties that may arise from laboratories and the lecture. S/U grading.

225. Functional Organization of Visual System. (2) Seminar, one hour; 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, microcircuitry organization and function of retina, central visual nuclei, and primary cortical areas mediating visual behavior. S/U or letter grading.


M255. Seminar: Neural and Behavioral Endocrinology. (2) (Same as Physiological Science M255 and Psychology M294.) Seminar, one hour; discussion, one hour. Topics include hormonal biochemistry and pharmacology of neuroendocrine interactions, both hormonal and neural. Structure and function of neuroendocrine systems. Hormonal control of reproductive and other behaviors. Sexual differentiation of brain and behavior. Stress: hormonal, behavioral, and neural aspects. Aging of reproductive behaviors and function. Letter 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. Advanced Topics in Neurobiology. (2–5) 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. 296A. Molecular, Cellular, and Developmental Neurobiology; 296B. 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
David Geffen School of Medicine
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Neurology
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S. Thomas Carmichael, Jr., MD, PhD (Frances Stark Professor of Neurology), Chair
Alon Y. Avidan, MD, MPH, Vice Chair of Education and Clinical Affairs
Marc R. Niuver, MD, PhD, Vice Chair of Finance and Administration
Christopher DeGiorgio, MD, Vice Chair, Olive View-UCLA
Mark J. Morrow, MD, Vice Chair, Harbor-UCLA
Claude G. Wasterlain, MD, Vice Chair, VA
Greater Los Angeles Healthcare System
Jeffrey Saver, MD, Senior Associate Vice Chair

Scope and Objectives
Neurology is the medical science dealing with the normal and diseased nervous system. Neurological disorders are often associated with significant disability, morbidity, and mortality. Their higher incidence in association with greater longevity of the population, increased awareness, improved diagnostic methods, and other factors place neurological disorders among the major medical problems today. The Department of Neurology and the Reed Neurological Research Center provide means for a coordinated basic science and clinical research approach to neurological disorders, patient care, and neurological education.

The department instructs medical students throughout the four years. Emphasis in the first year is on basic aspects of neuroanatomy, chemistry, and physiology; in the second year, neurological history taking and neurological examination of afflicted patients are stressed. The third year consists of a clerkship, and the fourth year provides electives in neurology, including an advanced clinical clerkship.

Graduate students and postdoctoral candidates are trained in both the basic and clinical laboratories.

For more details on the Department of Neurology and courses offered, see the department website.

Neurology

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course
199. Directed Research in Neurology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

NEUROSCIENCE, UNDERGRADUATE
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Neuroscience Undergraduate IDP 310-206-2349
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Scope and Objectives
Neuroscience seeks to understand the brain in health and 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, includ-
ing 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 groups; 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; Mathematics 3A, 3B, 3C, and Statistics 10 or 13, or Mathematics 31A, 31B, 32A, and Statistics 10 or 13, or Life Sciences 30A, 30B, and 40 or Statistics 13; Physics 1A, 1B, 4AL, and 4BL, or 5A, 5B, and 5C.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students
Transfer applicants to the Neuroscience major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C; one year of calculus, one year of general chemistry with laboratory for majors, one semester of organic chemistry with laboratory, and one statistics course. A second semester of organic 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 153A. Psychology 115 cannot be substituted for Neuroscience M101A; however, Physiological Science 111A can be substituted.

Elective Options: One course from each of the following three options:


Molecular, Cell, and Developmental Neuroscience: Molecular, Cell, and Developmental Biology 162, Neuroscience M130, M145, C177, 180, 181, 182, 186, M187, 191C, Physics C186, Physiological Science M106, 121, C126, C127, M145, 146, 147, 174, 175, M181, Psychology M117J, 162, or M166.


Capstone Research Options: (1) Neuroscience 101L or (2) Neuroscience 198A and 199B, or 199A and 199B. Students who select the Neuroscience 101L capstone research option must take four upper-division electives, with at least one from each of the three elective options. Students who select the Neuroscience 198A and 199B, or 199A and 199B option may take three upper-division electives, one from each elective option.

No more than eight courses may be from any one department. A maximum of 8 units of Neuroscience 198 or 199 in any combination may be applied toward the major. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in all upper-division courses taken for the major.

Honors Program
The honors program provides exceptional Neuroscience majors with the opportunity to do research culminating in an honors thesis. Majors who have completed all preparation courses with a grade-point average of 3.0 or better and an overall GPA of 3.2 or better may apply for admission to the honors program. Applications and program requirements are available in the Neuroscience Undergraduate Office. Students must submit the application before beginning their upper-division honors requirements. After completion of all requirements and with the recommendation of the faculty sponsor and a second reader of the thesis, the chair confers honors at graduation.

Neuroscience Minor
The Neuroscience minor is designed to allow students in other majors an opportunity to explore the interdisciplinary field of neuroscience in a structured and rigorous way, while pursuing a major field of study in another discipline at the same time.

To enter the minor, students must have an overall grade-point average of 2.0 or better and a 2.5 GPA in the requisite courses for Neuroscience M101A and M101B.

Nonscience majors wishing to minor in Neuroscience should be aware that preparation courses in chemistry, life sciences, and physics are 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 for credit to students with credit for course M101A (or Molecular, Cell, and Developmental Biology M175A or Physiology Science M180A or Psychology M17A) or Physiology Science 111A or Psychology 115. 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. (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 individual study with course lecture instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week. Open to all undergraduate students. Not open to 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-M101B-M101C. Neuroscience: From Molecules to Mind. (5-5-5) Neurology, Molecular, Cell, and Developmental Biology M175A-M175B-M175C, Psychological Science M180A-M180B-M180C, and Psychology M117A-M117B-M117C) Lecture, four hours; discussion, 90 minutes. P/NP or letter grading: M101A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14A or 30A (14C may be taken concurrently), and Psychology 2 or 7C, Physics 1B or 1BH or 6B or 5C. Not open for credit with student for credit in Psychological Science 111A. For Neuroscience and Psychological Science majors, grades of C–or better required to proceed to Neuroscience M101B or Psychological Science 111B. Cellular neurophysiology, membrane potential, action potentials, and synaptic transmission. Sensory systems and motor systems: 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). For Psychological Science 111A or Life Sciences 3 and 4 (may be taken concurrently), and 7C. Molecular biological and behavioral emphasis on synaptic transmission, axonal transport, cytoskeleton, and muscle. Classical experiments and modern molecular approaches in developmental neurobiology. P/NP or letter grading.

M101C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisite: 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. Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.

101L. Neuroscience Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses M101A, M101B (M101B may be taken concurrently). Not open for credit with student for credit in course. Introduction to laboratory methods in neuroscience. Laboratory exercises range from molecular and cell biological to behavioral. Hands-on experience with laboratory equipment, and understanding experimental approaches in neuroscience. Letter grading.

102. Introduction to Functional Anatomy of Central Nervous System. (4) Lecture, three hours; laboratory, one hour. Requisite: Life Sciences 2 or 7C. Corequisite: course M101A. Not open for credit with student for credit in course. Introduction to functional and experimental approaches in neuroscience. Letter grading.

103. Introduction to Special Topics in Neuroscience. (4) Lecture, three hours; laboratory, one hour. Requisite: Life Sciences 2 or 7C. Corequisite: course M101A. Not open for credit with student for credit in course. Overview of human nervous system; relation of behavior to higher cognitive function. Development of primate and human brain during past few million years; evolution of the human brain; evolutionary aspects of human brain function; human behavior; and human brain disease. Development of primate and human brain during past few million years; evolutionary aspects of human brain function; human behavior; and human brain disease.


M119N. Visual System. (4) (Same as Psychology M119N.) Lecture, three hours. Requisite: course M101A 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, three hours; 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 of falling asleep, many discrete brain structures involved in control of sleep wakefulness, and homeostatic regulation of sleep. How our sleep patterns are influenced by our age, sex, and gender. Latest insights into function of sleep, critical role sleep plays in memory formation and, close association between sleep and metabolism. Sleep disorders and how they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, completion of Psychological Science C126 is highly recommended. Concurrently scheduled with course CM223. Letter grading.

M130. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181, Psychiatry M181, and Psychology M117J.) 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. Underlying brain systems involved in psychiatric symptoms and neurological 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. (4) (Same as Biological 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. Requisite: course M101A or Psychological Science 111A or M180A. Examination of central nervous system organization required for production of complex movements such as locomotion, masturbation, 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. Neuroscience for predicting our own futures and modeling what scenarios that might alter risks and benefits of different courses of action, based on individual genetic background and other elements. Interviewing and carrying out experience. 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 what 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 towards 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.

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 underlying motivation, learning, and cognition. P/NP or letter grading.

C172. Neuroimaging and Brain Mapping. (4) 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. Strongly recommended; course 102, Theory, methods, applications, and interpretation of neuroimaging. Techniques, biological questions, and public policies. Emphasis on understanding brain function, and brain function, their relationship discussed with regard to imaging. Concurrently scheduled with course CM272. Letter grading.

C177. Drugs of Abuse: Translational Neurobiology. (4) Lecture, four hours. Requisite: course M101A. Course ranges from synaptic to society. Provides theoretical background on current research on current research on basic processes underlying substance abuse and bindings that material with relevant topics such as epidemiology, co-occurring disorders, treatment, and prevention, and public policies, with emphasis on communication of course materials to general public. Concurrently scheduled with course C277. Letter grading.

178. Human Electroencephalography and Evoked Potentials in Research and Clinical Diagnosis. (4) Seminar, four hours. Enforced requisite: course M101A. Not open for credit with student for credit for course 191A, seminar 1. Emphasis on human electroencephalogram (EEG) and evoked potentials. Introduction to number of experimental paradigms that allow for recording of different brain signals from brainstem to cortex. Letter grading.


181. Cellular, Molecular, and Genomic Approaches to Neurological Development and Disease. (4) Seminar, three hours. Enforced requisites: courses M101A, M101B. Not open for credit with student for credit for course 191C, seminar 1. 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 neurological and psychiatric disorders, and techniques for studying development and disease. Integrative genomic approaches for identifying and characterizing gene(s) involved in these processes. Emphasis on mouse models, but other model organisms considered as well. Letter grading.

182. Cellular and Molecular Mechanisms of Learning and Memory. (4) Seminar, four hours. Enforced requisite: course M101A. Not open for credit with student for credit with student for credit for course 191C, seminar 1. 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 neurological and psychiatric disorders, and techniques for studying development and disease. Integrative genomic approaches for identifying and characterizing gene(s) involved in these processes. Emphasis on mouse models, but other model organisms considered as well. Letter grading.
ular approaches to learning and memory. Learning and memory deficits in neuropsychiatric diseases. LTP and LTD models. Letter grading.

182. Pharmacology of Drugs of Abuse. (4) Seminar, four hours. Enforced requisite: course M101A. Not open for credit to students with credit for course 191A. Pharmacology of stimulants, depressants, hallucinogens, and opioids. Discussion of how drugs interact with central nervous system and produce dependence, addiction, and chronic toxic effects. Letter grading.

186. Neural Stem Cells: Biology, Diseases, and Therapies. (4) Lecture, two and one half hours. Preparation: background in biology and biochemistry. Enforced requisites: courses M101A, M101B. Designed for third- and fourth-year 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 Physiological Science M106 and Psychology M142.) Lecture, three 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 policies and criminal justice system. 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.

191A–191B–191C. Variable Topics Research Seminars: Neuroscience. (4–4–4) Seminar, three hours. Topics on one or more aspects of neuroscience. Reading, class discussions, and culminating research 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.


191H. Honors Seminars: Neuroscience. (4) Seminar, four hours. Preparation: one statistics course (Statistics 3 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 papers. 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.

192A. Practicum in Neuropathology for Undergraduate Assistants. (2) Seminar, three hours; laboratory, one hour. Requisites: courses M101A and 102, with grades of A. Limited to senior Neuroscience majors. Training and supervised practicum in neuropathology for undergraduate assistants. Students assist faculty members and graduate teaching assistants in laboratory only. May not be applied toward elective requirements and may not be repeated for credit. P/NP or letter grading.

192B. Project Brainstorm: Neuroscience K–12 Outreach. (4) Seminar, one hour; fieldwork, three hours. Limited to juniors/seniors. Course to be supervised by faculty and teaching assistant advisers. Project Brainstorm is K–12 science education outreach program of Brain Research Institute (BRI) and Neuroscience PhD and undergraduate programs that stimulates interest in science for children and young adults in grades K–12 by providing hands-on learning experiences that emphasize function and importance of brain. Students expected to prepare age-appropriate lesson plans to be used in Project Brainstorm classroom visits. Students meet on regular basis with supervisors and provide feedback of their experiences. May not be applied toward major requirements. May be repeated twice for credit. P/NP grading.

192C. Drug Abuse and Society: Conveying Concepts to High School Students. (4) Seminar, four hours (seven weeks); fieldwork, four hours (three weeks). Enforced requisites: courses M101A, C177. Limited to senior Neuroscience majors. Preparation of students to give accurate, knowledgeable, and age-appropriate lectures in area of group 2. Each course may be repeated twice for credit.


194A. Honors Research in Neuroscience. (4) Tutorial, 12 hours minimum. Requisites: 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 mentor. For departmental honors, students must also take course 191H. Maximum of 8 units of courses 198A, 198B, 199 may be applied toward major. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

194B. Honors Research in Neuroscience. (4) Tutorial, 12 hours minimum in laboratory. Requisite: course 198A. Continued reading and research that culminate in honors thesis under direct supervision of faculty mentor. Culminating paper or project required. Maximum of 8 units of courses 198A, 198B, 199A, 199B may be applied toward major. Individual contract required. In Progress grading (credit to be given only on completion of course 199B).

194C. Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum. Enforced requisites: courses 99, M101A. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Maximum of 8 units of courses 198A, 198B, 199A, 199B may be applied toward major. Individual contract required. Letter grading.

194D. Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum. Enforced requisites: courses 99, M101A. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. 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**

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Stephanie A. White, PhD (Integrative Biology and Physiology)

### 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 multi-level 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 neuronal function and the biological basis of disease. Students select their research mentor from the list of all neuroscience faculty at UCLA.

Information on the undergraduate program in this discipline can be found in the Neuroscience undergraduate interdepartmental program section.

### Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Graduate Degree
The Neuroscience Program offers the Doctor of Philosophy (PhD) degree in Neuroscience.

Neuroscience
See the Neuroscience undergraduate interdepartmental program for more undergraduate courses.

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in 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 projects 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, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotrophic factors. Letter grading.

M202. Cellular Neurophysiology. (4) (Same as Neurobiology M202F and Physiological Science M202.) Lecture, three hours; discussion, two hours. Requisites: Physiology I (M111A 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 M263.) 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 of and relationships between ascending and descending functional 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 M203A.) 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, neurounatomy, 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, and system level processes, and application to clinical disorders. Letter grading.

M206. Neuroengineering. (4) (Same as Bioengineering M260 and Electrical and Computer Engineering M235.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 1B or SC. Introduction to principles and technologies of bioelectricity and neural signal recording, processing, and stimulation. Topics include bioelectricity, electrophysiology (action potential, local field potentials, EEG, ECOG), intracellular and extracellular recording, microelectrode technology, neural signal processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulus artifact removal), brain-computer interfaces, opto-electro-stimulation, and prosthetics. Letter grading.

207. Integrity of Scientific Investigation: Education, Research, and Career Implications. (2) Discussion, two hours. Emphasis on ethical issues for students. Debate on topics related to ethical conduct of scientific investigation, with emphasis on critical thinking. Topics include scientific misconduct, mentoring, data ownership, authorship, and rights of animals and humans in biomedical research, conflicts of interest, technology, and scientific integrity. S/U grading.


215. Variable Topics Research Literature Seminar. 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.

220. Biology of Learning and Memory. (4) (Same as Neurobiology M200G and Psychology M208.) Lecture, four hours. Molecular, cellular, circuit, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.

221. 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 Physiological Science C223E.) Lecture, discussion, one hour. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakefulness, and homeostatic regulation of sleep. How our sleep needs shift based on our evolutionary history, age, and gender. Latest insights into function of sleep, critical role sleep plays in memory formation and close association between sleep and metabolism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, M101A and Physiological Science C126 is highly recommended. Concurrently scheduled with course CM123. Letter grading.

M230. Molecular and Cellular Mechanisms of Neural Integration. (5) (Same as Physiological Science M210 and Physiological Science M210C.) Lecture, four hours; discussion, one hour. Requisite: course M202. Introduction to mechanisms of synaptic processing. Selected problems of current interest, including regulation and modulation of transmitter release, molecularbiology 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. Phenotypic Measurement of Complex Traits. (4) Lecture, three hours. Preparation: background in human genetics helpful. Integrative approach to understanding gene to behavior pathways by examination of levels of 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 basic understanding of methods used at each level of phenotype analysis, along with major resources that can be accessed to gain insight to gene-behavioral links. Letter grading.

245. Optical Approaches in Neuroscience. (4) Lecture, four hours. State-of-art, 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 advances microscopy approaches such as FRET and FLIM. Letter grading.

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 learned behaviors of mammals during 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.


M273. Normal 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. Discussion of invertebrate memory, cortical conditioning, hippocampus and declarative memory, and frontal lobes and primary memory.

275. Advanced Techniques in Neurobiology. (2) Lecture, one hour; laboratory, one hour. Preparation: basic biology and chemistry. Designed to provide introduction and, when possible, practical demonstration of a number of techniques used in neurochemical research, with emphasis on techniques used for identification, measurement, and visualization of compounds thought to be important as mediators of inter- cellular communication in central nervous system. S/ U or letter grading.

C277. Drugs of Abuse: Translational Neurobiology. (4) Lecture, four hours. Requisite: Neuroscience M101A. Course ranges from synapse to society. Provides an overview of pharmacological basis for understanding substance abuse and blends 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 C177. Letter grading.

M228. Functional Neuroimaging: Techniques and Applications. (3) (Same as Bioengineering M284, Physics and Biology in Medicine 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 experiments. Letter or S/U grading.

286A. Electroencephalography Methods and Analysis I (4) Lecture, three hours. Recommended preparation: one term of graduate level statistics, biostatistics. Understanding of neural origins of electroencephalographic activity, common and advanced methods for experiment designs, EEG recording and noise reduction, data processing, feature extractions, and biomarker development. Students design simple experimental paradigms to answer some fundamental perceptual and cognitive questions, de-noise already recorded EEG and extract useful information using popular EEG processing software or other analysis tools. Letter grading.


M287. Dynamics of Neural Microcircuits. (4) (Same as Neurobiology M287.) Lecture, two hours; discussion, two hours. Development of integrative understanding of neural microcircuits that underlie specific functions of sensory processing, generation, and coordination of motor activity, as well as generation and modulation of neural rhythms. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employed as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. S/U grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. S/U grading.

599. Dissertation Research for PhD Candidates. (2 to 12) Tutorial, to be arranged. Designed for students requiring special instruction or time to work on dissertation. S/U grading.

NEUROSURGERY

David Geffen School of Medicine

562 Wasserman Building
Box 956901
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Neurology

310-267-9449

Linda A. Liu, MD, PhD, MBA, Interim Chair

Scope and Objectives

Neurosurgery is a discipline of medicine that provides (1) operative and nonoperative management (i.e., critical care, prevention, diagnosis, evaluation, treatment, and rehabilitation) of disorders of the central, peripheral, and autonomic nervous systems, including their supporting structures and vascular supply, (2) the evaluation and treatment of pathological processes that modify the function or activity of the nervous system, including the hypophysis, 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.

For more details on the Department of Neurosurgery, see the department website.

Nursing

School of Nursing

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Nursing

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Nursing / 593
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John Lazar, RN, PhD, FNP-BC
Mary B. Nelson, RN, CPNP, PhD
Benissa E. Salem, RN, MSN, PhD, CNL, PHN
Rita L. Secola, RN, PhD

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, other major medical centers, 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 a population-based context, leadership, and evidence-based practice. At the master’s level, nurses are prepared as generalists in hospital-based care or for advanced nursing practice as nurse practitioners, or clinical specialists, or administrators in a variety of settings and specialized areas of healthcare. The PhD program prepares scholars who do original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied.

Undergraduate Study
The Nursing (Prelicensure) major is a designated capstone major. Students complete a clinically based scholarly project that is approved by a designated faculty member. In completing the capstone course, students should select, evaluate, and apply appropriate theory and research findings concerning individual- and population-based health promotion and disease prevention, biobehavioral and health systems, and social environmental, cultural, and human diversity to the nursing process. They should utilize the nursing process to promote biopsychosocial health and disease prevention and to support the resources of culturally diverse clients and families in community- and/or hospital-based settings. Through their work, students should demonstrate effective communication and collaboration skills with clients and their families, research participants, other health professionals, colleagues, and policymakers. They should also identify practice-based problems and hypotheses and critique research on issues of importance to nursing and health care delivery; participate effectively in relevant professional and community organizations and/or interest groups; demonstrate leadership as a member of the health team to plan, manage, and evaluate care of individuals, families, and communities for culturally diverse populations; and practice their work based on the principles of ethics, social justice, and law.

Nursing BS Prelicensure Capstone Major
The focus of the prelicensure program is on the preparation of nurse generalists with special skills in primary, secondary, and tertiary prevention and care within an individual- and population-based context while developing the basics for a strong leadership role. Students learn the art and science of nursing using the latest research findings to guide their practice.

Learning Outcomes
The Nursing major has the following learning outcomes:
- Selection, evaluation, and application of appropriate theory and research findings concerning individual- and population-based health promotion and disease prevention, biobehavioral and health systems, social environmental, and cultural and human diversity to the nursing process within a variety of clients, families, and communities from diverse cultural backgrounds.
- Use of the nursing process to promote biopsychosocial health and disease prevention, and to support client resources in community and hospital settings.
- Demonstrated effective communication and collaboration skills with clients, families, research participants, health professionals, and policymakers.
- Identification of practice-based problems and hypotheses, and critique research on issues of importance to nursing and health care delivery within hospital and community settings.
- Effective participation in professional and community organizations and interest groups relevant to health care delivery and modification of nursing standards and practices in keeping with current trends.
- Demonstrated leadership as a health team member to plan, manage, and evaluate care of individuals, families, and communities.
- Practice of hospital- and community-based nursing using principles of ethics, social justice, and law.

Admission
The School of Nursing strives to attract a culturally and ethnically diverse student population. Admission is designed for freshman students and transfer students at the junior level. Freshman applicants are expected to fulfill the University of California admission requirements. Transfer applicants are expected to fulfill the Intersegmental General Education Transfer Curriculum (IGETC). Students must have a grade of C or better in each requisite course and an overall grade-point average of 3.5 or better. Two recommendation forms and a written statement of purpose are also required. Diverse life experiences, including previous employment, volunteer work, and community service that reflect leadership, responsibility, multicultural involvement, multilingual abilities, and other unusual skills and knowledge are evaluated for all applicants. Consideration is also given to students who are socially, economically, and educationally disadvantaged. Completed applications should reflect clearly identified career goals and documentation of potential for nursing practice.

Preparation for the Major
Required: Chemistry and Biochemistry 14A, 14B, 14C, Communication 1 or 10, Life Sciences 7A, 7C, Mathematics 3A or 31A, Microbiology, Immunology, and Molecular Genetics 10, Nursing 3, 10, 13, 20, 50, 54A, 54B, Psychology 10.

Transfer Students
Transfer applicants to the Nursing major with 90 or more units must complete the following introductory courses prior to admission to UCLA: calculus, communications, human anatomy, human physiology, inorganic and organic chemistry, cells, tissues, and organs, microbiology, molecular biology, and introductory or general psychology.

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

The Major
Required: Biostatistics 100A, Nursing 115, 150A, 150B, 152A, 152B, 160, 161, 162A through 162D, 164, 165, 168, 171, 173, 174, and completion of a capstone senior scholarly project (course 169). Transfer students must complete Nursing 10, 20, 50, 54A, and 54B on entry. Students may request to pursue a minor in a related field if the coursework can be completed within the 216-unit limit. The curriculum at UCLA must be completed with a minimum overall grade-point average of 2.0 (C) or better in all courses taken while a student in the School of Nursing. Each required nursing course in the school must be completed with a grade of C or better (C– grade is not acceptable).

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate
Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The School of Nursing offers the Master of Science in Nursing (MSN) degree, the Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Nursing, and the Doctoring 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. Letter grading.

13. Introduction to Human Anatomy. (5) Lecture, three hours; laboratory, two hours. Structural presentation of selected 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. Use of ethical principles for justice, autonomy, veracity, beneficence, confidentiality, and professional values (autonomy, human dignity, integrity, and social justice) in relation to nursing practice throughout history in health/illness and end-of-life contexts. 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 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 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 integral components. Introduction 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, characteristics and roles of professional nurses. Development of caregiver, teacher, and collaborator roles in learning experiences in nursing skills laboratory and 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 152B.) Lecture, three hours. Requisites: courses 3, 13 taken within past three years. Designed to provide students with basic understanding of the pathophysiologic changes that occur within internal environment of individual. Concepts underlying 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.

152B. Health Promotion: Nutrition in Culturally Diverse Populations. (2) Lecture, two hours. Examination of primary prevention strategies involving nutrition and lifestyle and cultural approaches to nursing care of diverse populations. Examination of nutrition in relation to prevention of disease and recovery from disease. Covers biological, public health, and clinical aspects of major macro- and micronutrients, obesity, malnutrition, dietary assessment, nutritional counseling, and treatment of overweight and disease approach. Examination of influences of overlapping political, societal, and governmental systems within U.S. and outside U.S. on observed nutritional trends. Letter grading.

C155. 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 and across classrooms located around globe. Students, through collaborative projects with peers around world, reflect on how globalization shapes and transforms nursing and healthcare at local, national, and global levels. Letter grading.

160. Secondary Prevention. (4) Lecture, four hours. Requisites: courses 150A, 150B, 152A, 152B. Screening and early detection of illness to prevent chronic or acutely deteriorating illness, including multifaceted assessment, health history, and diagnostic reasoning for selected health problems, with emphasis on social, cultural, and developmental influences. Integration of primary, secondary, and tertiary health promotion strategies. Examination of influences of overlapping political, societal, and governmental systems within U.S. and outside U.S. on observed health trends. Letter grading.


162A. Foundational Concepts for Tertiary Prevention and Care of Medical-Surgical Patients and Families. (4) Lecture, three hours; clinical, three hours. Requisites: courses 54A, 54B, 150A, Corequisites: courses 115, 150B. Examination of nursing assessment and management of common health problems that adults experience. Theory content in basic 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, therapeutic interventions, and communication concepts as applied to care of medical and surgical clients and their families. Introduction to concept of nurses as bedside scientists, with emphasis on critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical research, evidence-based practice, and clinical thinking that nurses need to promote patient care used during clinical experiences. Letter grading.

162B. Tertiary Prevention and Care of Medical-Surgical Patients and Families. (6) Lecture, four hours; clinical, six hours. Requisite: course 162A. Pathophysiologic and nursing implications of assessment and management for selected acute and emergent problems of adult patients with complex illness, including multifaceted assessment, health his-
ory, and diagnostic reasoning skills, and emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, evidence-based practice, patient safety, and communication concepts and care of medical-surgical patients. Supervised practicum experience within settings 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. Intermediate-level assessment, health maintenance, and management of symptoms across lifespan. 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. Theories emphasize assessment, goal setting, treatment planning, and evaluation of nursing care of older adults and their families with emphasis on psychosocial, cultural, and developmentally relevant factors. Letter grading.

164. Maternity Nursing. (5) Lecture, three hours; clinical, six hours on campus; courses 160, 165, 166, 168, 169. Nursing assessment and management for selected acute and emergent problems in 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 childbearing families, with application of nursing process, clinical reasoning, prompt intervention, and outcome achievement with fluid replanning for rapidly changing disease conditions. Letter grading.

165. Pediatric Nursing. (5) Lecture, three hours; clinical, 160, 163, 166, 168, 169. Nursing assessment and management of acute, chronic, critical, and emergent illnesses in infants, children, and adolescents with emphasis on social, cultural, and developmentally relevant factors. Integration of basic knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, and family-centered care as applied to care of infants, children, and adolescents. Letter grading.

166. Advanced Leadership and Role Integration. (5) Lecture, five hours. Requisites: courses 161, 162A, 163, 164, 165. Leadership and management theories and models, resource allocation and management, delegation, conflict resolution, human relationships, legal and ethical aspects of professional practice, evaluation of professional practice, patient safety and quality improvement, accountability, health care systems, and contemporary issues in workplace. Emphasis placed on integration of all professional role behaviors, application of research, evidence-based practice, and leadership and management 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.


170. Physical Health Care. (6) Lecture, three hours; clinical, nine hours. Requisites: courses 161, 162C, 163, 164, 165. Theoretical content focuses on population-based approaches for health promotion and disease prevention at level of individuals, families, communities, and systems. Clinical practicum concentrates on population-based public health nursing in culturally diverse settings including health departments, health policy institutions, and public service agencies. Clinical practicum activities include health promotion and disease prevention at level of communities, populations, and systems, both domestically and globally. Letter grading.

173. Introduction to Research. (4) Lecture, four hours. Introduction to planning research project based on simple question. Specific components of research activities analyzed: specific aims and study purposes, variable definition, sample selection, data collection tools, data analyses, and ethical conduct in research studies. Critique of research reports. P/NP or letter grading.

174. Physical Assessment. (4) Lecture, three hours; laboratory, three hours. Requisites: courses 3, 13. Designed to provide in-depth review and synthesis of physical assessment skills and knowledge covering lifespan. Individual study, use of audiovisuals, physical assessment skills practice in laboratory, and required text are mandatory. Letter grading.

175. Physical Assessment for Advanced Practice. (4) Lecture, three hours; laboratory, three hours. Comprehensive review and synthesis of physical assessment skills and knowledge covering lifespan and in diverse populations. Emphasis on history-taking related to diagnosis of general physical health problems, as well as detailed physical examination techniques. Individual study, use of audiovisuals, physical assessment skills practice in laboratory, and required text are mandatory. Letter grading.

188. Special Topics in Nursing. (4) Lecture, three hours; discussion, one hour. Limited to junior/senior Nursing majors. Departmentally sponsored experimental courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

190. Research Colloquium in Nursing. (1) Seminar, one hour. Designed to bring together students under-taking supervised tutorial research in seminar setting with one or more faculty members to discuss their own or other related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

193. Journal Club or Speaker-Seminar Series: Nursing. (1) Seminar, two hours; outside study, four hours. Limited to undergraduate students. Discussion of readings selected from current literature of field or other topics related to guest speaker series. May be repeated for credit. P/NP grading.

196. Research Apprenticeship in Nursing. (2 to 4) Tutorial, four hours per week per unit. Limited to junior/senior Nursing majors. 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 grading.

197. Individual Studies in Nursing. (2 to 4) Tutorial, one hour. Limited to junior/senior Nursing majors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. 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 Nursing. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Citing paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

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.

202. Philosophy of Nursing Science. (4) Lecture, four hours. Focus on philosophy 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 quantita-tive and qualitative, used by nurse scientist to create new knowledge. Analysis of contemporary schools of thought, modern and postmodern approaches to nursing scholarship as well as role of nurse scientist as leader in policy development in greater health care milieu. Letter grading.
203A. Basic Statistics and Fundamentals for Analysis. (4) Lecture, four hours. Preparation: one upper-division statistics course. Introduction to applied statistics, including design, analysis of variance, correlation techniques, and regression. Sample size calculations, parametric vs. nonparametric tests, and concepts of database design, management using statistical 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. Focus on in-depth analysis of intersectionality of theoretical frameworks, design, sample selection, data collection instruments, and data analysis techniques. Content discussed in terms of clinical nursing research problems and application to clinical settings. Letter grading.

205A. Introduction to Qualitative Methods in Research. (4) Lecture, four hours. Requisite: course 202. Introduction to qualitative research design in nursing science. Examination of major methodologies that guide qualitative research in relation to various strategies for data collection (interviews, participant observation, focus groups), data analysis, and data interpretation. Scientific rigor and ethical concerns for research with human participants critically examined. Letter grading.


205C. Advanced Qualitative Research: Grounded Theory Methodology II. (4) Lecture, four hours. Requisites: courses 205A, 205B, or equivalent as approved by instructor. Students design and implement qualitative projects. Focus on grounded theory methodology. Symbolic interactionism and constructivism as foundation with grounded theory as guide to recruit small groups, conduct interviews and observations, and simultaneously analyze data through inductive coding and memora nda writing. Employment of constant comparison and examination of key elements of self-reflexivity and research ethics. 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 and nursing science. Application of skills fundamental to concept analysis and development in nursing and integral to use in nursing theory and research. Letter grading.

206B. Nursing Theory Development. (2) Formerly numbered 206B. Lecture, two hours. Requisites: courses 202 or philosophy of science (may be taken concurrently), four units of nursing theory. Critical analysis of role of theory and theoretical frameworks in developing nursing research. Application of skills fundamental to development of theory, core concepts, and theoretical integration to use of theory in nursing research. Letter grading.

207. Quantitative Research Designs of Clinical Phenomena. (3) Lecture, two hours; discussion, one hour. Requisites: courses 202, 206A, 210A, 210B, Biostatistics 100B. Introduction to wide array of quantitative research study designs. In-depth examination of dynamic 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 validity of and other design characteristics 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 orientations related to ethnicity and gender. Provides conceptual base that nurses can use in clinical practice, research, teaching, and administration. Letter grading.

210A. Critical Review of State of Science in Nursing Research. (3) Lecture, three hours. Requisite: doctoral standing or consent of instructor. In-depth examination of relevant health-service, biologic, vulnerable populations, and biobehavioral research topics. Students explore research on particular phenomena, analyze current and historical scholarly findings in literature, critique significance of finding 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 research in biologic, biobehavioral, vulnerable populations, and health services research. Letter grading.

210B. State of Science in Nursing: Critical Synthesis of Literature. (3) Formerly numbered 210B. Lecture, four hours; consent of instructor. In-depth analysis of published research relevant for health service, biologic, vulnerable populations, and biobehavioral topics. Students deepen 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 review, 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 research pertinent to primary care of women. Focus on health issues and concerns for women during reproductive years. Clinical topics include gynecology, family planning, pregnancy, and postpartum care, with emphasis on health promotion and reproductive health. Letter grading.

212. Family Healthcare Perspectives. (2) Lecture, four hours. Letter grading.


216A. Cancer Care: Evidence-Based Practice I. (4) Lecture, four hours. Synthesis of management, organization, communication, governance, development and change, diverse relationships within organizations, risk management, liability, and ethics of administration decision making. Students engage in issues raised in class related to international and international healthcare management. Letter grading.

216B. Cancer Care: Evidence-Based Practice II. (4) Lecture, four hours. Developing knowledge and skills for future continuous personal and professional growth. Emphasis on issues affecting local, national, and international healthcare management and policy development. Letter grading.


218D. Oncology Nursing. (4) Lecture, four hours. Requisite: course 218C. Focus on synthesizing organizational and management theories in relation to strategic planning and management, changing care delivery systems, human and financial resource management, decision making, management information systems, interpersonal practice, and meeting accreditation and legal standards. Letter grading.

219A. Essentials of Accounting and Budgeting in Healthcare Organizations. (4) Lecture, four hours. Requisites: management, organization, and administration presented in relation to techniques of accounting, budgeting, finance, and healthcare economics. Focus on defining accountancy, budgetancy, and cost concepts, followed by practical applications within variety of healthcare settings. Letter grading.


220. Theories of Instruction and Learning in Nursing. (3) Lecture, two hours. 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 socioeconomic groups. Opportunities provided for skill development in use of computer-based information systems and development of instructional aids. Letter grading.

M221. Qualitative Research Design and Methodology for Indigenous Communities. (Same as American Indian Studies M202 and Health Policy and Management M202.) Seminar, three hours. Introduces to some key theoretical and methodological concepts and explorations of methods that can be used to incorporate them in research on American Indian cultures, societies, languages, and other issues.
Nursing

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.

223. Childhood Development: Research and Application to Nursing. (3) Lecture, three hours. Critique and evaluation of current research and theory in child development and application to care of healthy and pathological children. Provides scientific basis for understanding human growth and development, anticipating problems, and managing barriers to growth and development throughout childhood. Letter grading.

224. Advanced Pharmacology for Advanced Practice Registered Nurses. (5) Lecture, five hours. Requires: course 231. In preparation for prescriptive authority, focus on major drug classes and their mechanisms of action, pharmokinetics, adverse effects, and clinical uses. Advanced knowledge of and skills in pharmacology for clients/patients with stable acute or chronic conditions. Letter grading.

225A-225B. Advanced Pharmacology I, II. (2–2) Lecture, three hours (course 225A) and two hours (course 225B). Course 225A is requisite to 225B. Emphasizes basic pharmacological principles in addition to clinical knowledge and skills necessary for patient-centered care of children or adults with chronic conditions. Focus on major pharmacological classes, their mechanisms of action, pharmokinetics, indications, and adverse effects. Discussion of quality and safety of pharmacological care in clinical practice. Emphasis on collaborative teamwork (i.e., 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 first-year coursework. Discussion and conceptualization of gerontological nursing concepts within context of specialty area content, (acute, chronic, oncology, gerontological nursing). Provides 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. Requisites: course 209. Identification of unique content related to minority aging using Giger and Davidhizar Transcultural Assessment Model. Examination of transcultural nursing viewed as culturally competent practice with a patient-centered and research-focused. Exploration of difference between Eurocentric lens and geroethic 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 critique and use of data collection instruments used in community 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 research with elders in variety of healthcare settings. Study designs for conducting research in community and long-term care settings, issues surrounding informed consent, planning for mortality and morbidity, data collection techniques for frail elders, including use of assessment tools used in community and long-term care settings, behavioral observations, interviews, and surveys, and statistical analysis techniques related to missing data, longitudinal data analysis, censoring, and repeated measures. Letter grading.

229A-229B-229C. System-Based Healthcare I, II, III. (1–1–1) Seminar, two hours. System-based healthcare: stress in context of clinical decision making, including team, hospital, culture, politics, economics, law, and personal bias. Topics include legal, political, and moral aspects of sexual assault and abortion; economic and cultural considerations involved in end of life decision making; and public and personal interpretation of what constitutes conflict of interest. Consideration of how medical decision making is 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. Requisite: course 230A is requisite to 230B. In-depth examination of general pathophysiological processes that underlie human illness and disease in extracellular, system, and human levels. Study and analysis of manifestations of, and responses to, processes of cellular and molecular pathology at cellular, tissue, and system, 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 extra-cellular, cellular, tissue, and system levels with implications for advanced practice registered nurses. 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 extra-cellular, cellular, tissue, and system level with implications for advanced practice registered nurse. Letter grading.

232. Human Responses to Aging and Chronic Illness. (2 or 4) Lecture/discussion, four hours. Pathophysiologic concepts and nursing management of older adults who are healthy or who have disability and/or chronic illness. Nursing aspects of selected dysfunctions and implications for advanced practice registered nurses. 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, elderly children, and adults with cognitive, somatosensory and pain processing, stress and distress, and activity and fatigue regulation. Detailed study and analysis of manifestations of, and responses to, processes of cellular and molecular pathology at extra-cellular, cellular, tissue, and system levels with implications for advanced practice registered nurses. Letter grading.

234. Biobehavioral Foundations of Neuropsychiatric Assessment. (4) Lecture, four hours. Biologic and behavioral theories and research from variety of disciplines, including nursing, for application to neuropsychiatric assessment and diagnosis. Exploration of theory and research evidence underlying and diagnosis of cognitive, addictive, and affective dysfunctions, with emphasis on developing biobehavioral nursing approach. Letter grading.

235. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (2) Lecture, two hours. Concepts and principles of working with individuals and groups using psychotherapeutic nursing practices. Discussion of application of evidence-based strategies and interventions developing biobehavioral nursing approach, as well as theory and research evidence underlying treatment of individuals with cognitive and attention deficits and thought, addictive, and mood disorders with emphasis on formulating and implementing an approach to management of biobehavioral symptoms in advanced nursing practice. Letter grading.

236. Pediatric Primary Care for Family Nurse Practitioners. (4) Lecture, four hours. Requisite: course 200. Preparation of family nurse practitioner to assume responsibility for health promotion and illness prevention, and maintenance and management of common developmental, behavioral, acute, and chronic health problems of infants, children, and adolescents in primary healthcare settings. Presentation of condition or disease, etiology and incidence, clinical findings, differential diagnosis, pharmacologic and non-pharmacologic treatment, case studies, and prevention and patient education measures. Examination of primary child health delivery model reliant on evidence-based knowledge, practice protocols, consultation, referral, and community resources. Letter grading.


239A-239B-239C. Adult/Gerontology Primary Healthcare for Advanced Practice Registered Nurses I, II, III. (4–4–4) Lecture, four hours. Requisites: courses 200, 224, 231. Course 239A is requisite to 239B. Focus on research underlying assessment and diagnosis, and management of common episodic and chronic adult health problems and conditions, including urgent care, for family and adult/gerontology primary care nurse practitioners. Application and evaluation of evidence-based interventions and clinical guidelines in diverse adult populations (late adolescence through old age). Analysis of health promotion, maintenance, and restoration approaches in special populations, including developmental, cultural, gender, life-stage perspectives, and functional impairment. Letter grading.

241. Biobehavioral Foundations of Neuropsychiatric Assessment. (4) Lecture, four hours. Biologic and behavioral theories and research from variety of disciplines, including nursing, for application to neuropsychiatric assessment and diagnosis. Exploration of theory and research evidence underlying and diagnosis of cognitive, addictive, and affective dysfunctions, with emphasis on developing a biobehavioral nursing approach. Letter grading.

242. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (2) Lecture, two hours. Concepts and principles of working with individuals and groups using psychotherapeutic nursing practices. Discussion of application of evidence-based strategies and interventions developing biobehavioral nursing approach, as well as theory and research evidence underlying treatment of individuals with cognitive and attention deficits and thought, addictive, and mood disorders with emphasis on formulating and implementing an approach to management of biobehavioral symptoms in advanced nursing practice. Letter grading.

245. Theoretical Foundations of Clinical Nurse Specialist Practice. (4) Lecture, four hours. Theoretical foundations of clinical nurse specialist practice, including systems theory, behavioral theories, consultation theory, change theory, and models of research utilization. Emphasis on application of relevant theories to clinical nurse specialty practice roles in healthcare systems through case study analysis, with focus on application to clinical practice situations which include culturally diverse populations. Letter grading.

249. Meeting Health-Related Needs in Under-served Populations. (4) Lecture, four hours. Examination of systemic barriers within healthcare settings that limit access to care, diagnosis, and management of culturally appropriate interventions. Unmet healthcare needs often result in health disparities and compromised quality of life among underserved, low income, uninsured, marginalized populations. Analysis of current evidence-based strategies and interventions de-
ssigned to address these clinical problems and improve outcomes in culturally competent manner. Prenatal outcome of context of healthcare financing, limited access, and public policy. Letter grading.

250. Ethical Issues, Social Justice, and History of Nursing. (5) Lecture, five hours. Interplay of social, economic, cultural, and political forces in the U.S. form background for study of ethical issues related to role of nurses as advocates for social justice and safe, effective, high-quality patient-centered care in community settings. Letter grading.

251. Introduction to Physical and Mental Health: Collaborative Practice. (5) Seminar, three hours; laboratory, three hours. Introduction to historical context within context of history of nursing, with emphasis on human rights, civil rights, and patient rights. Discussion of evolution of professional nursing within healthcare settings, in relation to ethical principles, cultural competence, evidence-based practice, and human dignity. Letter grading.

252A. Health Promotion: Growth and Development in Culture and Community. (5) Lecture, two hours. Introduction to basic preventive strategies as they pertain to health and wellness across lifespan, using population-based approach to nursing care of diverse populations. Includes priorities in reproductive health including issues related to contraception and parenting; well-child care, school-age health, and chronic illness prevention. Focus on growing and middle-aged adults and elderly who live independently in communities or within institutions. Analysis of influence of overarching political, societal, and governmental systems within U.S. and international communities. Letter grading.


254A. Theoretical Foundations of MSN/MSCN Role and Fundamentals of Professional Nursing Lecture/Clinical Skills Practicum I. (4) Lecture, three hours; laboratory, three hours. Focus on theoretical foundations of primary, secondary, and tertiary prevention strategies involving nutrition in population-based and clinical approaches to nursing care of diverse populations. Lecture is offered in relation to prevention of disease and recovery from disease. Covers biological, public health, and clinical aspects of major macro- and micronutrients, obesity, malnutrition, and nutrition in clinical care using candidate disease approach. Examination of influences of overarching political, societal, and governmental systems within U.S. and outside U.S. on observed nutritional patterns. Letter grading.

254B. Theoretical Foundations of MSN/MSCN 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 approaches to assisting patients to meet basic human needs at various levels of health continuum, with emphasis on application of relevant theories to master’s entry clinical nurse (MECN) practice roles in healthcare systems through case study analysis, with focus on application to core clinical practice settings that include culturally diverse populations. Emphasis on communication, nutrition 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.

257. Introduction to Research. (4) 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. Emphasis on assessment of role and practice of clinical nurse leaders. Letter grading.

258. Healthcare Systems/Organizations. (3) Lecture, three hours. Focus on national and international healthcare delivery systems in terms of effects of policy, economic factors, structure and financing of organizations, characteristics of patients/populations, and services provided. Emphasis on assessment of role and practice of clinical nurse leaders. Letter grading.


260. Leadership in Health Care Systems. (3) Lecture, four hours. Requisites: courses 250, 465A, 465B. Discussion of use of systems theory in providing patient-centered value-added care. Health care practitioners learn to use critical thinking and decision making to coordinate and deliver quality, cost-effective patient care. Discussion of different modes of organizing, managing, and staffing care within micro-, meso-, and macro-levels of health care systems; managing care within multidisciplinary team framework; and promoting effective teamwork that enhances patient outcomes and improves health care delivery systems. Letter grading.


286. Variable Topics in Nursing. (4) Lecture, three hours; discussion, one hour. Variable topics; consult with instructor for specific topic. Letter or S/U grading.

290A-290B-290C. Child Abuse and Neglect. (5) Lecture, four hours. Focus on child abuse and neglect, including prevention strategies for early detection of disease to reduce morbidity and mortality across lifespan and to develop strategies to promote health. Use of interpersonal conceptual frameworks addressing individual, family, community, health care systems factors, social environmental systems, and policies to identify factors influencing screening and culting health disparities in order to adapt plans for care. Nursing interventions for promoting screening address barriers and facilitators, controversies, and as well as utilize existing strengths and support systems to facilitate health. Letter grading.

295A. Grant Writing I: Scientific Proposal Development. (2) Seminar, three hours; courses 202, 205A, 206A, 210A, 210B, Biostatistics 100B. Introduction to grant writing, with focus on preparing application for National Student Research Award (NSRA) or similar award. Discussion of requirements of various extramural and specialty organization funding sources and identification of evaluation criteria. Emphasis on role of external funding to facilitate doctoral and postdoctoral research, research activities, and professional development. Letter grading.

295B-295C. Nursing Science Seminars. (2–2) Seminar, two hours. Requisite: course 295A. Introduction to grant writing, with focus on preparing applications for National Student Research Award (NSRA) or similar award. Discussion of requirements of various extramural and specialty organization funding sources, and evaluation criteria. Emphasis on role of external funding to facilitate doctoral and postdoctoral research, research activities, and professional development. S/U grading.

M298. Interdisciplinary Response to Infectious Disease Emergencies: Nursing Perspective. (4) (Terms: Fall, Spring) Lecture, two hours; laboratory, one to three hours. Focus on infectious disease emergency response, including roles and ways in which quality management impacts delivery of patient-centered and value-driven care. Discussion of concepts including improving system performance, resource analysis, 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 changes of adverse outcomes, evidence-based practice, cost-effective decision making, resource management, and external impacts on quality control. Satisfies course requirement for CNL certification. Letter grading.

299A. Ethical Conduct in Research. (2) Seminar, two hours. Examination of historical and current issues of ethical integrity at each stage of research process in relation to conflicts of interest, data sharing, responsible authorship, data management, and handling of misconduct in research with both human and animal subjects. Students are responsible for an ethical and responsible conduct of research and protection of research subjects as students create their own application for research. Letter grading.

299B. Nursing Research Seminar I. (1) Seminar/discussion, one hour; research/laboratory, three hours. Requisites: courses 202, 205A, 206A, 206B, 207, 208, 210A, 210B, 295A, Biostatistics 100A, 100B. Special topics course for students who have completed required coursework and are preparing to advance to doctoral candidacy. Discussion topics range from identifying areas of research/ laboratory experiences, and engagement in planning for and evaluation of students’ mentored experiences on weekly basis. Letter grading.

299C. Nursing Research Seminar II. (4) Seminar/discussion, one hour; research/laboratory, three hours. Requisites: courses 202, 205A, 206A, 206B, 207, 208, 210A, 210B, 295A, Biostatistics 100A, 100B. Special topics course for students who have completed required coursework and are preparing to advance to doctoral candidacy. Discussion topics range from identifying areas of research/ laboratory experiences, and engagement in planning for and evaluation of students’ mentored experiences on weekly basis. Letter grading.

404. Analytical Methods for Evidence-Based Practice. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Advanced concepts on research methods and measurement strategies that are applicable to support advanced practice in nursing. Emphasizes understanding of evidence-based practice and current evidence. Letter grading.


406. Clinical Prevention and Population Health. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Enables DNP students to integrate, synthesize, and apply key concepts introduced in previous coursework in order to incorporate core components into practice. Evidence-based practice, clinical preventive service and health promotion, health systems and policy, and focus on health and community aspects of practice are emphasized through focus on current health issues. Letter grading.


410. Dissemination and Translation of Clinical Scholarship. (2) Lecture/seminar, two hours. Requisite: doctorial standing. Students develop understanding of scientific information and support critical decision-making in health care. Students learn to formulate clinically relevant focused question(s) that guide their DNP project. Letter grading.

411. Information Technology for Nursing Practice. (2) Lecture, two hours. Requisite: doctoral standing. Prepares students to obtain knowledge and skills related to information technology and patient care technology. Prepares DNP graduates to apply new knowledge, manage individual and aggregate information, and assess efficacy of patient care technology appropriate to specialized area of practice. Allows students to use information technology/system resources to implement quality, evidence-based health practice administrative decision-making. Students gain ability to demonstrate conceptual and technical skills to develop and execute evaluation plan involving data extracted from system practices and databases. Letter grading.

414A-414B. Clinical Practicum: Adult/Gerontology Acute Care Oncology Nurse Practitioners. (6–8) Clinic practicum, 16 hours (course 414A) and 22 hours (course 414B). Requisite: course 414C. Course 414A is enforced requisite to 414B. Assesses and therapeutic interventions in oncology settings with diverse acute adult/gerontology populations. Management of cancer risk, cancer support, and treatment-related side effects, rehabilitation, health promotion, and palliative care. For course 414A, students complete minimum of 160 direct clinical hours; for course 414B, they complete minimum of 200 direct clinical hours. Letter grading.

414A-416B. Adult/Gerontology Acute Care Nurse Practitioner Practicum I, II. (6–8) Clinic practicum, six hours (course 414A) and 24 hours (course 414B). Enforced requisite: course 440. Course 416A is enforced requisite to 416B. Assessment and therapeutic interventions for selected health problems in acute adult/gerontology populations. Development, 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.

416C-416D. Adult/Gerontology Acute Care Nurse Practitioner Practicum III, IV. (6 each) Clinic practicum, 16 hours. Requisite: course 416B. Course 416C is enforced requisite to 416D. Assessment and therapeutic interventions for selected health problems in acute adult/gerontology populations. Development, 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. First of five clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Focus on family-focused framework of care for those who experience common acute and chronic illness, developmental transitions, and health problems. Emphasis on health promotion, maintenance, and risk reduction interventions across wide range of diverse populations. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 80 direct clinical hours. Letter grading.

429B. Family Nurse Practitioner Practicum II. (4) Clinic practicum, 12 hours. Requisite: course 429A. Second of five clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework of care for those who experience common acute and chronic illness, developmental transitions, and health problems. 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 assessment of individual/family needs in context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 80 direct clinical hours. Letter grading.
429C–429D–429E. Family Nurse Practitioner Practicum III, IV, V (6–9 credits). Clinic practicum, 18 hours (courses 429C, 429D, and 429E). Requisites for course 429C: course 429B; for 429D: course 429C; for 429E: course 429D. Third, fourth, and fifth clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework for care of those who experience common acute and chronic illness, disability, and developmental transitions. Preparation in variety of clinical settings to implement evidence-based practice guidelines and 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 429C and 429D, students complete minimum of 160 direct clinical hours; for course 429E, they complete minimum of 240 direct clinical hours. Letter grading.

438A. Pediatric Nurse Practitioner Clinical Practicum I (4) Clinic practicum, 12 hours. Corequisite: course 238A. Comprehensive assessment and anticipatory guidance of children and families to promote child wellness. Clinical practicum, seminar, and other learning activities to demonstrate application and evaluation of evidence-based research and clinical guidelines in pediatrics. Students complete minimum of 100 direct clinical hours. Letter grading.


438D. Pediatric Nurse Practitioner Clinical Practicum IV. (8) Clinic practicum, 24 hours. Requisites: courses 238B, 438C. Students assume primary responsibility for assessment, diagnosis, management, and evaluation of care provided to children and families in ambulatory setting. Clinical practicum, seminar, and other learning activities to demonstrate application and evaluation of evidence-based research and clinical guidelines in pediatric acute and chronic illnesses. Students complete minimum of 240 direct clinical hours. Letter grading.

438E. Pediatric Nurse Practitioner Clinical Practicum V. (9) Clinic practicum, 27 hours. Enforced requisites: courses 439A through 439D. Designed to prepare adult/gerontology primary care nurse practitioners with the knowledge and competencies necessary to assume role of primary healthcare provider for young adults, adults, and older adults. Use of patient-centered framework of care for health promotion, acute and chronic illness, disability, and developmental transitions. Preparation in variety of clinical settings to implement evidence-based practice guidelines and critically analyze and adapt healthcare interventions based on individualized assessments, with emphasis on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 240 direct clinical hours. Letter grading.


444. Adult/Gerontology Advanced Assessment and Clinical Diagnosis II. (2) Clinic practicum, six hours. Enforced requisite: course 440. Practice foundations for advanced physical assessment and clinical diagnostic reasoning, with focus on diagnosis of complex cases, and strategies in selected populations with significant stress, affective, and cognitive dysfunctions in relation to neurophysiology and pathology and to family, social, and cultural structures. S/U grading.

445. Advanced Practice Registered Nursing: Clinical Nurse Specialist Practicum. (2 to 10) Clinic practicum, six to 30 hours. Requisites: courses 220, 245. Practicum/residency where students gain skills and competencies to function collaboratively and autonomously to achieve high quality patient outcomes. Clinical nurse specialist (CNS) practice achieves this by working within three spheres of influence: patient, family, nursing personnel, and organizational systems utilizing multidisciplinary approach through application of knowledge, clinical and nursing content, and practice, problem-solving, and critical thinking strategies to improve patient safety, care quality, and health outcomes. Supervised practicum experience within setting of multidisciplinary team in clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating nursing care in pediatrics. Effective communication, teamwork, and collaboration with health care systems. Integration of information management and technology to facilitate effective communication and support clinical decision making. 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.


462. Maternity Nursing. (5) Lecture, three hours; clinical, six hours. Requisites: courses 204, 260, 465B. Ongoing influences. Integration of knowledge and skills as applied to care of mother and newborn. Preparation in variety of clinical settings to implement evidence-based practice guidelines and 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. Assessment, health maintenance, and management of symptomatology among childbearing women and newborns. Letter grading.

463. Nursing Care of Geriatric Patients and Families. (5) Lecture, two hours; 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, goal setting, 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, social factors, legal issues, ethical issues, social aspects of aging, community health, and technology to facilitate effective communication and support clinical decision making. Letter grading.

464. Pediatric Nursing. (5) Lecture, three hours; clinical, six hours. Requisites: courses 204, 260, 465A, 465B. Nursing assessment and management of acute, chronic, critical, and emergent illnesses in pediatrics with emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, pharmacology, therapeutic interventions, and communication concepts as applied to care of older adult patients and their families.Emphasis on theory, diagnosis, critical thinking, and application of knowledge and skills in assessment 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. Students integrate knowledge of pathophysiology, pharmacology, social factors, legal issues, ethical issues, social aspects of aging, community health, and technology to facilitate effective communication and support clinical decision making. Letter grading.


465C. Tertiary Prevention and Care of Complex Medical-Surgical Patients and Families. (8) Lecture, four hours; clinical, 12 hours. Corequisites: courses 204, 260, 466B. Examination of nursing assessment and management of adult and chronic health problems of acutely ill adults. Theory content in assessment, nursing diagnosis, and diagnostic reasoning with emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, pharmacology, pathophysiological and psychosocial concepts in acute illness and nursing management of critically ill adults, with focus on effect of critical illness on individual and family health. Key diagnostic and therapeutic modalities that provide effective nursing management of individuals with complex critical illnesses addressed. Emphasis on rapid assessment, critical reasoning, prompt intervention, and outcome achievement with fluid replanning for rapidly changing situations. Letter grading.

467. Clinical Internship: Integration. (12) Clinical, 36 hours. Corequisites: courses 288, 461, 462, 463, 464, 465A, 465B, 465C. Supervised practicum experience within clinical setting as part of interdisciplinary health care team, with focus on application of theory in clinical setting and interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Students design and complete quality improvement project that contributes to unit’s goals and objectives. Students implement and evaluate project, with focus on safety, health maintenance, and management of symptomology across lifespan. Introduction to concept of nurses as bedside scientists, with emphasis on critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, critical thinking, and clinical judgment that maximize patient safety and quality care employed during clinical experiences. Diagnosis and management of healthcare problems managed by master’s-level clinical nurses in acute care settings. Letter grading.

470A. DNP Scholarly Project Course I: Project Conceptualization and Planning. (2) Lecture, two hours; clinical, four hours. Corequisites: courses 401, 402, 403, 404, 405, 408. Preparation: successful completion of first year of DNP didactic coursework. DNP students gain skills necessary to successfully design and implement a project 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.

470B. DNP Scholarly Project Course II: Project Proposal. (2) Lecture, two hours; clinical, six hours. Corequisite: course 470A. DNP students develop full DNP scholarly project proposal that reflects synthesis of student's knowledge from prior coursework. 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. Corequisite: course 470B. Continued development of knowledge, skills, and abilities to implement chosen DNP scholarly project proposal. Students assume role of leadership in interprofessional collaboration, consultation, and partnership. Students receive direction from faculty committee chair and peer feedback as they become engaged in microsystem where they implement their DNP scholarly project. Provides structured didactic content and application of student’s DNP scholarly project. Letter grading.

470D. DNP Scholarly Project Course IV: Project Evaluation. (8) Lecture, two hours; clinical, six hours. Corequisite: 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 implement their DNP scholarly project. Project paper is written. Students are also mentored in making professional presentations and writing for publication. Letter grading.

495. Nursing Education Practicum. (2) Seminar, six hours. Supervised student teaching internship in preparation for academic roles. In-depth opportunity to gain skills in role of nurse educator within university setting, including application of instructional strategies and evaluation methods. S/U grading.

496A-496B-496C. Education Practicum in Nursing Practice I, II, III. (1-1-1) Activity, one hour; discussion, one hour. Corequisites for course 496A: courses 401, 402; course 496A is requisite to course 496B, which is requisite to course 496C. Focuses on development and implementation of patient education program. Prepares DNP students for teaching roles in variety of settings. May be repeated for credit. Letter (496C) grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA assistant dean for academic affairs; successful completion of course 252A, 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 MSN degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.
Ophthalmology

David Geffen School of Medicine

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Scope and Objectives

Ophthalmology is the medical science that encompasses knowledge concerning the eyes and the visual system. Derived from many basic and clinical fields, this knowledge must be synthesized by the physician and applied to the prevention, diagnosis, medical management, and surgical therapy of ocular disease.

In response to the steadily increasing incidence and growing importance of ocular disorders, the Department of Ophthalmology as well as the Stein Eye Institute and Doheny Eye Institute are closely coordinated to form a comprehensive center for research in the sciences related to vision, for the care of patients with disease of the eyes and related structures, and for education in the broad field of ophthalmology, all with community outreach.

The Department of Ophthalmology provides instruction and electives to medical students during the first, second, third, and fourth years at the Stein Eye Institute and the Doheny Eye Centers UCLA. Through lectures, demonstrations, discussions, and the opportunity to observe patients and review data on cases with a variety of ocular conditions, students gain knowledge and experience in ophthalmology.

For more details on the Department of Ophthalmology and courses offered, see the department website.

Oral Biology

School of Dentistry

13-089 School of Dentistry
Box 951668
Los Angeles, CA 90095-1668

Oral Biology

E-mail contact

Cun-Yu Wang, DDS, PhD, Chair
Fariba S. Younai, DDS, Vice Chair

Professors

Francesco Chiappelli, PhD
Dean Ho, MS, PhD
Anahid Jewett, MPH, PhD
Mo K. Kang, DDS, MS, PhD (Jack A. Weichman Professor of Endodontics)
Diana V. Messadi, DDS, MMSc, DMSc
Ichiro Nishimura, DDS, DMD
Igor Spiegelman, PhD
Sotiris Tetrakis, DDS, PhD
Cun-Yu Wang, DDS, PhD (Dr. No-Hee Park Professor of Dentistry)
David T.W. Wong, DMD, DMSc (Felix and Mildred Yip Endowed Professor of Dentistry)

Associate Professors

Shen Hu, PhD
Reuben Kim, DDS, PhD
Yong Kim, PhD, in Residence
Renate Lux, PhD, in Residence

Adjunct Professors

Carl A. Maida, MA, PhD
Ki-Hyuk Shin, MS, PhD

Adjunct Assistant Professors

Jiông L. PhD
Fang Wei, PhD

Professor of Clinical Dentistry
Fariba S. Younai, DDS

Scope and Objectives

Oral biology is the area of knowledge that deals with the development, structure, and function of the oral tissues and their interrelationships with other organ systems in normal and disease states. It is a multidisciplinary field that includes cell biology, bone biology, molecular biology, biochemistry, neuroscience, immunology, microbiology, and virology. The objective of the graduate program is to provide students with a sound foundation in these areas in order to pursue an academic or career oriented academic or career.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Section of Oral Biology in the School of Dentistry offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Oral Biology. A combined DDS/Oral Biology MS or PhD or advanced certificate training/Oral Biology MS or PhD is also offered.

205A. Methodology in Research Design and Data Analysis. (2) Lecture, two hours. Designed for graduate oral biology students. Integration of didactic lectures in descriptive and inferential statistics and in research design (emphasis on experimental design, presentation, critique, and open discussion 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. For courses 205A, 205B (may be taken concurrently). Hands-on experience in process of systematic review, as shared experience in comparative effectiveness and evidence-based medicine. Topics include level and quality of evidence assessments, acceptable sampling analysis, meta-analysis and meta-regression, and Bayesian-derived decision making following utility versus logic model. Students work on examples of their choice and interest in oral biology, medicine, and orthodontics. Letter grading.

206. Current Topics in Oral Immunology. (2) Lecture, two hours. Preparation: basic immunology. Discussion and analysis of current research dealing with immunological issues related to oral health, including HIV, opportunistic oral infections, periodontal pathology, oral immunopathology, caries immunology, endodontic immunology, etc. Letter grading.

208. Genomics and Proteomics in Oral Biology Research. (2) Lecture, one hour; discussion, one hour. Introduction to fundamentals and technical aspects of genomics and proteomics and analysis of data derived therefrom. Discussion of implications and applications of genomics and proteomics in diagnostic protocols such as salivary diagnostics. Letter grading.

209. Scientific Ethics. (2) Seminar, two hours. Required course for graduate students in Oral Biology MS and PhD programs and for NRSA trainees in School of Dentistry. Letter grading.

211. Biology of Temporomandibular Joint. (2) Lecture, two hours. Preparation: anatomy, physiology, and biomechanics of temporomandibular joint (TMJ) and related musculature. Pain mechanisms, sensorimotor integration, and motor mechanisms in TMJ function, and current methods of TMJ imaging. S/U or letter grading.

212. Proseminar: Oral Biology Research. (2) Seminar, one hour; discussion, one hour. Introductory course for graduate MS students. Guest seminars on topics of research in oral biology (pain pathways, immunology, bone biology, microbiology, cancer, and salivary genomics), followed by discussions led by course chair. Letter grading.

214. Current Research in Osteoimmunology. (2) Seminar, one hour; discussion, one hour. Exploration of oral bone biology and immunology and how both systems talk to each other. Topics include immune modulation of bone metabolism, osteoblastic niche for hemopoietic stem cells, adult bone mass, stem cell changes, and osteoimmunology in at-risk populations. Letter grading.

215A. Fundamentals of Immunology. (2) Lecture, two hours. Preparation: molecular mechanisms involved in responses mediated by immune effectors, with emphasis on immunopathology involved in autoimmunity, cancer, and immunodeficiency syndromes. Letter grading.

215B. Current Advanced Research Topics in Immunology. (2) Seminar, one hour; discussion, one hour. Overview of rapidly changing discoveries in very important field of immunology. Directed and student-led discussions of current cutting-edge research developments in immunology. Letter grading.

220. Integrative Biology and Biomaterials Science in Relation to Dentistry. (2) Lecture, one hour; laboratory, 90 minutes. Introduction to integrative biology and biomaterials science by bringing together the diversity of fields of disciplines that complement one another to unravel complexity of biology in biomaterials in relation to dentistry. Integration of bioengineering, materials science, and oral biology. Fundamentals of materials science in relation to dentistry, stem cell biology, and knowledge necessary to participate in dental and biomedical research, innovation, and product development. Letter grading.

221. Advanced Dental Materials. (2) Lecture, one hour; laboratory, 90 minutes. Preparation of individuals for academic and research careers in dental materials science or broader area of biomaterials relevant to clinical dental practice. Fundamentals of dental materials and knowledge necessary to participate in research and product development. Introduction to materials science, with focus on major classes of materials used in dentistry, including polymers, metals, and ceramics, and providing up-to-date information on dental materials currently used in clinical dentistry. Letter grading.

226. Craniofacial Growth and Development. (2) Lecture, two hours. Preparation: strong background in histology and embryology. Students acquire, from scientific literature discussed in lecture/seminar format, advanced knowledge of relevant aspects of human biology as they apply to classic and current concepts of principles governing growth and development of craniofacial region. Students required to present seminars on assigned topics that aid their understanding and provide content that has application to their specific and professional fields. Letter grading.

227. Dental Embryology and Histology. (2) Lecture, two hours. Preparation: basic immunology. Description and interpretation of important stages in development of orofacial apparatus and histological features of its component tissues. Critique of scientific literature relevant to course content and analysis of current state of knowledge about selected features of orofacial apparatus that are of significance to clinical dental specialists. S/U or letter grading.

228. Dental Pharmacology and Therapeutics. (2) Lecture, three hours. Survey of pharmacology, with particular emphasis on how drugs interact with dentistry. General principles of drug action and drug effects on autonomic and central nervous systems. S/U or letter grading.

229A. Culture, Ethnicity, and Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour; discussion, one hour. Examination of sociocultural, biological, and linguistic anthropology to understand factors that influence health and well-being, experience and distribution of illness, prevention and treatment of sickness, healing processes, social relations of therapy management, and cultural importance and utilization of pluralistic medical systems. Theory, perspectives, and methods from clinical medicine, public health, epidemiology, demography, and social sciences. Letter grading.

229B. Anthropological Perspectives on Global Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour; discussion, one hour. What factors determine health, illness, and disease in global context, including political ecology of infectious diseases, chronic diseases, health and reproductive health, global trade in legal and illegal drugs, demography and health transition, structural adjustment, problems associated with globalization of pharmaceutical, antibiotic resistance, and globalization and health equity. Letter grading.

234. Seminar: Developmental Neuroendocrinimmunology. (2) Seminar, two hours. Designed for graduate students. Psychological and physiological processes interwined, and one important aspect of psychoneuroimmunological research is characterization of mechanisms that underlie these interactions. Examination of current literature on neuroimmune interaction from developmental perspective. S/U or letter grading.

235. Interdisciplinary Response to Infectious Disease: Emergencies, Dilemmas, and Community Perspectives. (4) (Same as Community Health Sciences M256, Medicine M256, and Nursing M298.) Lecture, three hours; discussion, one hour. Designed to instill in professional students ideas of common emergency health problems and coordinated response, with specific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Schools of Medicine, Nursing, and Public Health during weeks two through five. Letter grading.


273. Research in Clinical Immunology and Lymphology. (2) Lecture, one hour; discussion, one hour. Forum for discussion of cutting-edge topics in immunology and lymphology from clinical perspective. Emphasis on immune surveillance and lymphatic drainage of oral pathways associated with AIDS and other diseases. Letter grading.

275. Molecular and Cell Biology for Oral Biology Graduate Students. (3) Lecture, two hours; literature review, one hour. Advanced course on prokaryotic and eukaryotic molecular and cell biology, with emphasis on applications in dental research. Letter grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U or letter grading.

597. Preparation for Ph.D Qualifying Examinations. (4 to 8) Tutorial, to be arranged. S/U or letter grading.


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**Orthopaedic Surgery**

David Geffen School of Medicine

Los Angeles, CA 90095-6902

76-143 Center for Health Sciences

Box 956902

Los Angeles, CA 90095-6902

**Orthopaedic Surgery**

310-825-6557

Francis J. Hornick, MD, Chair

John S. Adams, MD, Vice Chair, Research

Sharon L. Ham, MD, Director, Medical Student Education

**Scope and Objectives**

The medical student program in the Department of Orthopaedic Surgery is designed to provide students with experience in understanding the diagnosis and management of disorders of the musculoskeletal system. Through a combination of didactic instruction and supervised clinical experience, students acquire the clinical skills of history taking and physical examination of the musculoskeletal system. Diagnosis and orthopaedic management of bone and soft tissue trauma, skeletal development defects, tumor, spinal disorders, hand and foot disorders, and arthritis are primary objectives. Third-year students work in ambulatory clinics and on inpatient services.
during their core surgical clerkship. Fourth-year electives provide the opportunity for in-depth experience on rotations at the Reagan UCLA Medical Center and affiliated institutions and emphasize subspecialties such as joint replacement, sports medicine, orthopaedic oncology, metabolic bone disorders, hand and foot surgery, spinal surgery, and pediatric orthopaedics.

For more details on the Department of Orthopaedic Surgery and courses offered, contact the Education Office at 310-825-6557 or see the department website.

Orthopaedic Surgery

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating 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 Orthopaedic Surgery. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

PATHOLOGY AND LABORATORY MEDICINE

David Geffen School of Medicine

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Los Angeles, CA 90095-1732

Pathology and Laboratory Medicine
310-825-8119
E-mail contact

Jonathan Braun, MD, PhD, Chair

Professors

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Linda G. Baum, MD, PhD
Scott W. Binder, MD (Hitzel Family Endowed Professor of Pathology)
Jonathan G. Braun, MD, PhD
Gay M. Crooks, MBBS (Rebecca Smith Professor of Molecular and Cellular Pathology)
Kenneth A. Dorschkind, PhD
Thomas A. Drake, MD, in Residence
Samuel W. French, MD, in Residence
Paul C. Fu, MD, in Residence
Tomas Ganz, MD, PhD
Ben J. Glasgow, MD (Wasserman Professor of Ophthalmology)
Wayne W. Groty, MD, PhD
Jerzy W. Kupiec-Weglinski, MD, PhD
Siavash K. Kurdistani, MD
Cynthia C. Nast, MD

Scott D. Nelson, MD
Stanley F. Nelson, MD, in Residence
Charalabos Pothoulakis, MD
Jian Yu Rao, MD
Elaine F. Reed, PhD, in Residence (Daljit S. and Elaine Sarkaria Endowed Professor of Diagnostic Medicine)
Jonathan W. Said, MD
Robert H. Schiestl, PhD
Ram R. Singh, MD
Michael A. Teitel, MD, PhD (Lya and Harrison Latta Endowed Professor of Pathology)
James G. Tidball, PhD
Peter J. Tontonoz, MD, PhD (Frances and Albert Planksky Professor of Anatomy)
David M. Underhill, PhD, in Residence
W. Dean Wallace, MD
Hanlin L. Wang, MD, PhD
William H. Yong, MD
Xianghong Jasmine Zhou, PhD

Professors Emeriti

Anthony M. Adinolfi, PhD
Sophia K. Apple, MD
Marcel A. Baluda, PhD
Judith A. Benjamin, MD
Pasquale A. Cancilla, MD
Michael J. Cecka, PhD
Alistair J. Cochran, MD
Walter F. Coulston, MD
Rita B. Effros, PhD
Michael C. Fishbein, MD (Frances and Albert Planksky Professor Emeritus of Anatomy)
Richard A. Garraway, PhD (Rebecca Smith Professor Emeritus of A-T Research)
Oliver Harkinsson, PhD
Charles R. Lassman, MD, PhD
Paul I. Liu, MD
Xin Liu, MD, PhD
Joseph M. Mirra, MD
Faramarz Naeimi, MD
Roberta K. Nieberg, MD
Donald E. Paglia, MD
Lawrence D. Petz, MD
David D. Porter, MD
Dennis Rodgerson, PhD
Nora Rozengurt, DVM, PhD
George S. Smith, MD
Mitsu T. Takasugi, PhD
Julien L. Van Lancker, MD
Elizabeth A. Wagar, MD

Associate Professors

David W. Dawson, MD, PhD, in Residence
Samuel Wheeler French, Jr., MD, PhD, in Residence
Dinesh S. Rao, MD, PhD

Assistant Professors

Valerie A. Arboleda, MD, PhD, in Residence
Maria I. Cobos Silveo, MD, PhD
Bogdan Pasanau, PhD

Adjunct Professors

David W. Gjertson, PhD
Joseph M. Miller, PhD
M. Elena Stark, MD, PhD
Robert B. Trelease, PhD

Adjunct Associate Professors

Wenyuan Li, PhD
Madhuri Vaddehara, PhD

Adjunct Assistant Professors

Bita Behjatnia, MD
Shelley A. Campeau, PhD
Joel A. Gamo, MD
James P. Lister, PhD

Scope and Objectives

Pathology is the branch of medicine concerned with the causes and development of disease. The goal of the cellular and molecular pathology (CMP) graduate program is to provide students with the knowledge to integrate findings at the cellular, molecular, and systemic levels to understand the causes and progression of disease.

Coursework is designed so that students gain an in-depth knowledge of cell and molecular biology, genetics, and disease mechanisms. Didactic instruction is complemented by participation in seminars and training in the design and execution of original laboratory research. As a result, graduates obtain the expertise to translate and answer questions defined in the clinical area to the laboratory bench and vice versa. For more information, 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 Pathology and Laboratory Medicine offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Cellular and Molecular Pathology. Applicants interested in studying with faculty in the department are encouraged to apply to an appropriate home area in Graduate Programs in Bioscience.

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.
**Graduate Courses**


M215. Interdepartmental Course: Tropical Medicine. (2) (Same as Medicine 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 world. Major emphasis on infectious diseases, with coverage of problems in nutrition and exotics. Topics in infectious diseases, with emphasis on nutrition and exotics. Syllabus supplements topics covered in classroom. S/U grading.

222. Hematopoiesis: Basic Biology and Clinical Implications. (4) Lecture, three hours; discussion, one hour. Preparation: students considered on case by case basis. In-depth study of concepts and paradigms in hematopoietic development. Mam- malian hematopoiesis and normal development, with focus on cellular mechanisms of cellular development and equal emphasis on conceptual and experimental aspects of knowledge in field. Discussion of important pathologic states within hematopoietic system, as well as established and novel avenues for therapy. Topics include hematopoietic stem cells and niche, transcriptional and epigenetic regulation of hemato- poiesis, B- and T-lymphocyte development, my- eloid, 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 req- uisites: Molecular Biology 254A through 254D. Molec- ular mechanisms of microbe interactions with eukaryotic host cells that result in disease or pathogen survival. Topics include pathogenesis of common vir-uses, bacteria, fungi, and parasites, basis of toxin-mediated 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 mech- anisms, with emphasis on experiments leading to un- derstanding of these mechanisms. Identification of important questions still remaining unanswered. Letter grading.

238. Histology and Pathology for Graduate Stu- dents. (2) Laboratory, two hours. Designed for UCLA ACCESS or Cellular and Molecular Pathology students. Basic introduction to 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 immunology and transplantation, 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 tech- niques of research in the study of the human genome map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from mouse to human. Discussion of focaliza- tions of disease genes. S/U or letter grading.


M257. Introduction to Toxicology. (4) (Same as Pharmacology M241.) Requisite: Pharmacology M241. Biochemical and systems toxicology, basic mechanisms of toxicity, and interaction of toxic agents with specific organ systems.

M258. Pathologic Changes in Toxicology. (4) (Same as Pharmacology M241.) Preparation: five students experience in learning normal histology of tis- sues 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; dis- cussion, one hour; laboratory, one hour. Requisite: Mi- crobiology 261. Advanced information for graduate and advanced undergraduate students regarding im- mune system anatomy, lymphocytic development, acute and chronic inflammation, hypersensitivity, and autoimmunity.

262. Cytogenetics and Genomics. (3) Lecture, three hours. Comprehensive guide so students gain suffi- cient knowledge in conventional and state-of-art cy- togenetic and genomic principles and techniques and their utility in current research applications. Focus on relationship between various chromosomal and genomic abnormalities in humans as identified by basic and advanced technologies such as fluores- cence in situ hybridization (FISH), chromosomal mi- croarray analysis (CMA), and next-generation se- quencing (NGS). All aspects of molecular cytoge- netics and cytogenomics through didactic teaching sessions, journal reviews, 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 develop- mental hematology. Pediatric hematologic disorders provide important paradigm to study other develop- mental systems. Subjects include hematopoiesis, basic stem cell biology, angiogenesis, alternative models to study developmental hematology (ze- bratfish and Drosophila), basic physiology of normal and abnormal red cells, platelets, and white cells, leuk- emogenesis and basic and clinical stem cell transplantation, state-of-the-art methods in developmental hema- tology (genomics, proteomics, and gene therapy, de- sign of clinical trials and biomathematical modeling, and statistics in developmental hematology. Letter grading.

M272. Stem Cell Biology and Regenerative Medi- cine. (4) (Same as Molecular, Cell, and Develop- mental Biology M272.) Lecture, two hours; discus- sion, two hours. Designed for graduate students. Pre- sentation of current knowledge of embryonic and adult stem cells and their role in normal development and growth. Major emphasis on how advances in cell and molecular biology and tissue engineering can be applied to use of stem cells in regenerative medicine. Bioethical and legal issues related to stem cell research. S/U or letter grading.

280. Clinical Aspects and Molecular Biology of Bone Marrow Failure Syndromes. (4) Lecture, two hours. Limited to graduate students. Coverage of prominent syndromes of bone marrow failure and molecular pathology of bone marrow failure syn- dromes. Studies provide important paradigms to un- derstand fundamental mechanisms of human disease in addition to normal biology of bone cell devel- opment. Topics include basic biology and clinical fea- tures 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 dis- cussion 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.


296. Research Topics in Pathology. (1 to 2) Re- search group meeting, one to two hours. Limited to departmental graduate students. Advanced study and analysis of current topics in pathology. Discus- sion of current research and literature in research spe- cialty of faculty member teaching course. May be re- peated for credit. S/U grading.


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

596. 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.


Christopher T. Denny, MD, Associate Vice Chair, Academic Affairs
Deborah Lehman, MD, Associate Vice Chair, Education
Andranik Madikians, MD, Associate Vice Chair, Clinical Affairs
Martin G. Martin, MD, MPP, Associate Vice Chair, Translational Research
Theodore B. Moore, MD, Associate Vice Chair, Subspecialties
Anna-Barbara Moscicki, MD, Associate Vice Chair, Translational Research

Scope and Objectives

The Department of Pediatrics has faculty members at seven teaching hospitals: Cedars-Sinai, Harbor-UCLA, Kaiser Permanente Los Angeles, and Olive View-UCLA medical centers; UCLA Mattel Children’s Hospital; UCLA Medical Center, Santa Monica; and Venice Family Clinic. For second-year medical students, the fundamentals of pediatric history and physical examination are taught at all sites as part of the pediatric clinical skills course. For third-year medical students, the required six-week clinical clerkship in pediatrics is offered at the following five sites: Cedars-Sinai, Harbor-UCLA, and Kaiser Permanente Los Angeles medical centers; UCLA Mattel Children’s Hospital/Olive View-UCLA Medical Center; and UCLA Medical Center, Santa Monica. For fourth-year medical students, in-depth sub-specialty 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 Course

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


PHARMACOLOGY

See Molecular and Medical Pharmacology

PHILOSOPHY

College of Letters and Science
321 Dodd Hall
Box 951451
Los Angeles, CA 90095-1451

Pharmacy
510-825-4641
Department e-mail

Seana Shiffrin, JD, DPhil, Chair

Professors
Tyler Burge, PhD (Mr. and Mrs. C. N. Flint Professor of Philosophy)
John P. Carriere, PhD
Mark D. Greenberg, JD, DPhil
Barbara Herman, MA, PhD (Gloria and Paul Griffin Professor of Philosophy)
Pamela Hieronymy, PhD
David B. Kaplan, PhD (Hans Reichenbach Professor of Scientific Philosophy)
Gavin Lawrence, DPhil
Calvin G. Normore, PhD (Brian P. Copenhaver Professor)
Michael A. Rescorla, PhD
Sherrilyn Roush, PhD
Seana Shiffrin, JD, DPhil
Sheidon R. Smith, PhD

Professors Emeriti
Robert Merrihew Adams, PhD
Joseph Almog, DPhil
Brian P. Copenhaver, PhD (Steven F. and Christlene L. Udvar-Hazy Professor Emeritus)
Donald A. Martin, BS
Herbert Morris, LLB, DPhil
Terence D. Parsons, PhD

Associate Professors
Samuel J. Cumming, PhD
Alexander J. Julius, 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

Philosopher, translated from the Greek, means lover of wisdom. The term has come to mean someone who seeks knowledge, enlightenment, and truth. The Department of Philosophy undergraduates program is not directed at career objectives (although it is traditionally good preparation for law, theology, and graduate work in philosophy). Philosophy is taught to undergraduate students primarily as a contribution to their liberal education. All of the lower- and most of the upper-division course offerings should be of interest and useful to students who are reflective about their beliefs or who wish to become so. It also provides students with the occasion to ponder the foundations of almost any other subject to which they are exposed—whether history, religion, government, law, or science.

The principal goal of the graduate program is to produce philosophers of high quality, thinkers informed by the great historical traditions of Western philosophers who can apply the methods of philosophical analysis to a broad range of current philosophical problems. Since all its graduate students hope to teach at the college or university level, the department is also committed to training clear, able, and stimulating teachers.

The department offers programs leading to the Bachelor of Arts 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.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Philosophy offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Philosophy. A concurrent degree program (Philosophy PhD/Law JD) is also offered.

Philosophy

Lower-Division Courses

1. Beginnings of Western Philosophy. (5)
   Lecture, three hours; discussion, one hour. Origins of Greek cosmology and philosophy, beginnings of systematic thought and scientific investigation concerning such questions as origin and nature of the material world, concept of laws of nature, possibility and extent of knowledge. Concentration on pre-Socratic philosophers, particularly Anaximander, Heraclitus, the Pythagoreans, Parmenides, Empedocles, and Greek atomists, during first two thirds of course and on Socrates and the rhetorical works of Plato in last few weeks. P/NP or letter grading.

2. Introduction to Philosophy of Religion. (5)
   Lecture, four hours; discussion, one hour. Introductory study of such topics as nature and grounds of religious belief, relation between religion and ethics, nature and existence of God, problem of evil, and what can be learned from religious experience. P/NP or letter grading.

3. Historical Introduction to Philosophy. (5)
   Lecture, three hours; discussion, two hours. Historical introduction to Western philosophy based on classical texts dealing with major problems, related thematically and studied in chronological order: properties of rational argument, 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? Which form of government is best? How much personal freedom should be allowed in society? P/NP or letter grading.

7. Introduction to Philosophy of Mind. (5)
   Lecture, three hours; discussion, one hour. Introductory study of philosophical issues about nature of the mind and its relation to the body, including materialism, functionalism, behaviorism, determinism and free will, nature of psychological knowledge. P/NP or letter grading.

8. Introduction to Philosophy of Science. (5)
   Lecture, three hours; discussion, one hour. Selected problems concerning the character and reliability of scientific understanding, such as nature of scientific theory and explanation, reality of theoretical entities, inductive confirmation of hypotheses, and occurrence of scientific revolutions. Discussion at nontechnical level of episodes from history of science. P/NP or letter grading.

   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.

11. 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.

12. Introduction to Ethical Theory. (5)
    Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 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. 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; use of theoretical terms in science. P/NP or letter grading.

M24. Language and Identity. (4)
   (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 various claims that speech act theory can account for systematic subordination of women; maligning of racial minorities; and, in some cases, incitement to violence through hate speech. Provides foundation for students of linguistic theory, philosophy, sociology, 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, logic and justification; forms of reasoning and structure of language. P/ NP or letter grading.
89. Honors Seminars. (4) 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 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. (Variable topics; consult Schedule of Classes.” 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 minimum of 12 units (excluding this course) with instructor consent; consult Undergraduate Research Center. May be repeated. P/NP or letter 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 transition from medieval to early modern period. Special emphasis on Augustine, Anselm, Aquinas, and Descartes. P/NP or letter grading.

100C. History of Modern Philosophy, 1600 to 1800. (4) 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.

M101A. Plato—Earlier Dialogues. (4) Same as Classics M145A. 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 M145B. 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.

M102A. Aristotle. (4) Same as Classics M147A. 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 M148A. Lecture, three hours; discussion, one hour. Study of some major Greek and Roman philosophical texts, including those of pre-Socratics, Plato, Aristotle, and Hellenistic philosophers, with emphasis on historical and cultural setting of texts, their literary form, interrelations, and contribution to discussion of basic philosophical issues. P/NP or letter grading.

M103B. Later Ancient Greek Philosophy. (4) Same as Classics M148B. Lecture, three hours. Preparation: one course from 100A, 100B, 100C, or 101A, Study of some major works of Hellenistic and Roman periods. Readings vary and include works by Stoics, skeptics, philosophers of science, Neoplatonists, etc. P/NP or letter grading.

104. Topics in Islamic Philosophy. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Development of philosophy of religion with emphasis on beginning of interaction of Islam with ancient philosophy to period of hegemony of Ottoman Empire. Figures examined may vary but usually include many of al-Kindi, Ibn Sinâ (Aviceirna), al-Ghazali, ben Maimon (Maimonides), Ibn Rushd (Avernoes), and Suhrwardi. Topics include central issues in metaphysics and epistemology, May be repeated for credit with consent of instructor. P/NP or letter grading.

105. Later Medieval Philosophy. (4) Preparation: one philosophy course. Metaphysics, theory of knowledge, and theology of Aquinas, Duns Scotus, and Ockham, with less full discussion of other authors from the 13th through early 15th century. Selected texts read in English translation.

107. Topics in Medieval Philosophy. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course. May be concurrently scheduled with course 105 or 106. Study of philosophy and theology of one medieval philosopher 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.

110. 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.

119. Descartes. (4) Lecture, four hours; discussion, one hour. Preparation: one course in philosophy. Study of philosophical writings of Descartes, with discussion of issues such as problem of skepticism, foundational problem of the 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.

110. Spinoza. (4) Lecture, three hours; discussion, one hour. Preparation: one course from 21. Study of philosophical works of Spinoza. May be concurrently scheduled with course C210, 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.

111. Leibniz. (4) Lecture, three hours; discussion, one hour. Preparation: one 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.

114. Hume. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of philosophy of Hume and Berkeley and their importance. May be concurrently scheduled with course C214. P/NP or letter grading.

115. Kant. (4) Lecture, three hours; discussion, one hour. Preparation: one course from 21 or 22. Study of Kierkegaard, with emphasis on historical and cultural setting of texts, their literary form, interrelations, and contribution to discussion of basic philosophical issues. P/NP or letter grading.

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 of following philosophers: Bolzano, Frege, Husserl, Meinong, O. 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.

119. Topics in Modern Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in philosophy of early modern period, or study in single area such as theory of knowledge or metaphysics in several philosophies. May be repeated for credit with consent of instructor. Concurrently scheduled with course C219. P/NP or letter grading.

120. 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 philosophy course. Selected 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, operationalization and prediction, nature of social laws).

127A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Syntax, semantics, pragmatics. Semantical concept of truth, sense and denotation, synonymy, analyticity, indexicals, 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.

127B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Preparation: course 31 or 124. Introduction to contemporary philosophy of science, focusing on problems of central importance. May be repeated for credit with consent of instructor.

128. Philosophy of Science: Social Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected 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, operationalization and prediction, nature of social laws).

127A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Recommended: course 127A or 127B. Selected topics similar to those considered in course C217A, but at more advanced and technical level. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228B. P/NP or letter grading.

127B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Course C127A is not required to C127B. Selected topics similar to those considered in course C127A, but with focus on contemporary theory and discussion, indexical terms, semantical paradoxes. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228C. P/NP or letter grading.

128. Philosophy of Mathematics. (4) Lecture, four hours. Preparation: courses 31, 132, and preferably one additional logic course. Study of selected topics in philosophy of mathematics. May include logicism of Frege and Russell, arithmetic relativism, ramified type theory, and predicative definition (Russell, Poincaré, early Weyl); intuitionism
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138. Philosophy of Visual Representation. (4) Lecture, four hours. 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, image versus language, semantics, pictorial representation, comics and film, diagrams, and data visualization. P/NP or letter grading.

Group III: Ethics and Value Theory

150. Society and Morals. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Critical study of principles and arguments advanced in discussion of current ethical 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. Preparation: two philosophy courses. Each course may be taken independently for credit. P/NP or letter grading. 151A. Selected Classical readings in Ancient Ethical Theories: Plato, Aristotle; C151B. Modern. Intensive study of Kant's ethical theory. May be repeated for credit with consent of instructor. Concurrently scheduled with course C245; 151C. Selected Classical Readings of Medieval Ethics.

153A. Topics in Ethical Theory: Normative Ethics. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Study of selected topics in normative ethical theory. Topics may include human rights, virtues and vices, principles of culpability and praise-worthiness (criteria of right action). May be repeated for credit with consent of instructor. P/NP or letter grading.

153B. Topics in Ethical Theory: Metaethics. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Study and analysis of basic concepts, selected problems, and alternative theories in metaethics. Topics may include analysis of moral language, justification of moral beliefs, moral realism, skepticism, free will, moral motivation, etc. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C253B. P/NP or letter grading.

154. Values in Value Theory: Rationality and Action. (4) Lecture, three hours; discussion, one hour. Requisite: course 6 or 7 or 22. Selected topics concerning normative issues in practical rationality or philosophy of action. Topics may include moral and practical phenomena, norms of actions 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.

154B. Values in Value Theory: Moral Responsibility and Free Will. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination of philosophical problems surrounding moral responsibility and free will, using contemporary or classical readings in attempt to better understand kind of freedom required for moral agents. May be repeated for credit. P/NP or letter grading.

155A. Medical Ethics. (4) Formerly numbered 155.) Lecture, three or four hours; discussion, one hour (when scheduled). Course 155A is not requisite to 155B. Examination of philosophical issues raised by problems of medical ethics, such as abortion, euthanasia, and medical experimentation. May be repeated for credit with consent of instructor. P/NP or letter grading.

155B. Medical Ethics. (4) Lecture, three or four hours; discussion, one hour. 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 and duties, 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. Topics in Political Philosophy. (4) Lecture, three hours; discussion, one hour. Analysis of some basic concepts in political theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C247. P/NP or letter grading.

157A-157B. History of Political Philosophy. (4–4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. May be repeated with consent of instructor. 157A. Historical survey of classic works in earlier political theory, especially those by Hobbes, Locke, Hume, and Rousseau. 157B. Reading and discussion of classic works in late modern political theory, especially those by Kant, Hegel, and Marx.

161. Topics in Aesthetic Theory. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Philosophical theories about nature and importance of art, art criticism, aesthetic experience, and aesthetic values. May be repeated for credit with consent of instructor.

166. Philosophy of Law. (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 other minds. May be repeated once for credit with consent of instructor.

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 other minds. 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 discoveries. P/NP or letter grading.

174. Topics in Theory of Knowledge. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Intensive investigation of one or two selected topics or works in theory of knowledge, such as a priori knowledge, problem of induction, memory, knowledge as justified true belief. Topics announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.

175B. Philosophy of Religion. (4) Formerly numbered 175B.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Intensive investigation of one or two topics or works in philosophy of religion, such as attributes of God, arguments for or against existence of God, or relation between religion and ethics. Topics announced each term. May be repeated for credit with consent of instructor.

176. Metaphysics of Modality. (4) Lecture, four hours. Preparation: courses 31, 132. Highly recommended; course 136. Second course in two-term sequence (also see course 136). Metaphysical foundations of modal logic and philosophical basis of model theory of modal logic. What are possible worlds? What is accessibility relation? Is modal logic one logic or one theory? Is its focus logical or metaphysical necessity? Are both notions really distinct? How metaphysically involved is (quantified) modal logic? What is the connection to doctrines of (1) haecceity and (2) Aristotelian Essentialism? P/NP or letter grading.

177A. Existentialism. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Analysis of methods, 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.

of Brouwer, Heyting, and later Weyl; proof theory of Hilbert. May be repeated for credit with consent of instructor. P/NP or letter grading.

129. Philosophy of Psychology. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course or one philosophy course and one physics course. Selected philosophical problems concerning nature of space and time. Philosophical implications of space-time theories, such as those of Newton and Einstein. Topics may include nature of geometry, conventionalism, absolutist versus relativist views of space and time, philosophical impact of relativity theory.

131. Science and Metaphysics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: two philosophy courses. Recommended: some background in basic calculus and physics. Intensive study of one or two metaphysical topics on which research in science has been thought to bear. Topics may include nature of causation, reality and direction of time, time-travel, backwards causation, realism, determinism, absolute view of space, etc. May be repeated for credit with consent of instructor. P/NP or letter grading.


133. Topics in Logic and Semantics. (4) Lecture, four hours; discussion, one hour. Preparation: 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.

M134. Introduction to Set Theory. (4) Formerly numbered Mathematics M1145.) Lecture, three hours; discussion, one hour. Preparation: course 135 or Mathematics 1110A or 1110B; one theory as framework for mathematical concepts; relations and functions, numbers, cardinality, axiom of choice, transfinite numbers. P/NP or letter grading.

135. Introduction to Metalogic. (4) Lecture, four hours; discussion, one hour. Preparation: course 31. Recommended requisite: course 132 (or Mathematics 33A or 33B), Metatheory sentential logic and first-order logic. Introduction to formal language, normal deductive systems, and models. Compactness and completeness theorems that concern compactness of notion of logical consequences. P/NP or letter grading.

136. Modal Logic. (4) Lecture, four hours. Requi- sites: courses 31 (enforced). 135. Introduction to model theory of modal logic (family of systems that includes logics of possibility and necessity, temporal logics, epistemic logics, and logics of actions/programs). Topics include invariance results, definability theory, completeness theory, game-theoretic methods, and relationship between modal logics and (classical) first- and second-order logic. P/NP or letter grading.

137. Philosophy of Biology. (4) Formerly numbered 132.) Lecture, four hours. Preparation: one philosophy course. Intensive study of one or two current topics in philosophy of biology. May include structure of evolutionary theory, fitness, taxonomy, reductionism, concept of biological species, and biological explanation. P/NP or letter grading.
177B. Historical Studies in Existentialism, (4) Preparation: one philosophy course. Study of central philosophical texts of one of the following: Nietzsche, Heidegger, Jaspers, Buber, Sartre, or Camus. Emphasis on explanation and interpretation of the texts. May be repeated with consent of instructor.

178. Phenomenology, (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Introduction to phenomenological method of approaching philosophical problems via works of some of the following: Brentano, Husserl, Heidegger, Scheler, Sartre, Merleau-Ponty, Ricoeur. Topics include ontology, epistemology, and particularly philosophy 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 or four hours; discussion, one hour (when scheduled). Preparation: two philosophy courses. Study of various concepts employed in understanding human 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, reliaiblism, 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 two topics or works in metaphysics which may be from different periods. Specific 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.

Special Studies

M117. Philosophical Analysis of Issues in Feminist Theory, (4) (Same as Gender Studies M1110C) Lecture, three hours; discussion, one hour (when scheduled). Preparation: major courses for Gender Studies majors; Gender Studies 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 study of concepts and principles that arise in discussion of women's rights and liberation. May be repeated with consent of instructor. May be repeated for credit with consent of instructor. Letter grading.

189. Advanced Honors Seminars, (1) Seminar, one hour. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topic 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. 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 not be applied toward departmental honors. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Philosophy, (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 program students. Selected topics in one or two topics or works in 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. Admitted 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 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 8 units may be applied toward degree requirements, but no 199 course may be substituted for course 198 or 198A in 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) Seminar, three hours. Limited to and required of all first-year graduate philosophy students. Selected topics in metaphysics and epistemology, philosophy of history, and ethics. S/U or letter grading.

Group I. History of Philosophy


203. Seminar: History of Ancient Philosophy, (4) Seminar, four hours. Discussion of problems and philosophers. May be repeated for credit with consent of instructor. S/U or letter grading.

206. Topics in Medieval Philosophy, (4) Lecture, four hours. Study of philosophy and theology of one or several medieval philosophers such as Aquinas, Anselm, Abelard, Aquinas, Scotus, or Ockham or study of single area such as logic or theory of knowledge in several medieval philosophers. Topics announced each term. May be repeated for credit with consent of instructor. S/U or letter grading.

207. Seminar: History of Medieval and Renaissance Philosophy, (4) Seminar, four hours. Discussion of problems and philosophers. May be repeated for credit with consent of instructor. S/U or letter grading.

208. Hobbes, (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Hobbes' political philosophy, especially Leviathan, with attention to its relevance to contemporary political philosophy. May be concurrently scheduled with course C108. S/U or letter grading.

210. Descartes, (4) Seminar, 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.

210C. Spinoza, (4) Lecture, three hours. Selected topics in philosophy of Spinoza. May be concurrently scheduled with course C110, in which case there is two-hour biweekly discussion meeting, plus additional readings and longer term paper for graduate students. S/U or letter grading.

211. 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 the 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. Preparation: courses 21 and 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 C115. S/U or letter grading.

215. 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 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 Modern Philosophy, (4) Lecture, three hours; discussion, one hour. Preparation: one or more philosophy courses of early modern period, or study in single area such as theory of knowledge or metaphysics in several philosophies. May be repeated for credit with consent of instructor. Concurrently 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

221A. Topics in Set Theory, (4) Lecture, three hours. Requisite: Mathematics M114S. Sets, relations, functions, partial and total orderings; well-orderings. Ordinal and cardinal arithmetic, finiteness and infinity, countability, hypothesis of continuum, cardinal numbers, and countable numbers. Formalization of set theory: Zermelo/Fraenkel; von Neumann/Gödel theory. May be repeated for credit with consent of instructor. S/U or letter grading.

221B. History of Set Theory, (4) Lecture, four hours. Development of concept of set in one or more philosophies of early modern period, or study in single area such as theory of knowledge or metaphysics in several philosophies. May be repeated for credit with consent of instructor. Concurrently scheduled with course C119. 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 not be used to satisfy special area requirement. S/U or letter grading.

235. Philosophy of Mathematics. (4) Seminar, three hours. Selected topics in philosophy of mathematics. May be repeated for credit with consent of instructor. S/U or letter grading.

Group III. Ethics and Value Theory

241. Topics in Political Philosophy. (4) Seminar, four hours. 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. Topics may include moral and practical dilemmas, nature of reasons for action, rationality of moral and political choices, and the 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.

247. Topics in Political Philosophy. (4) Lecture, three hours; discussion, one hour. Analysis of some basic concepts in political theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C156. S/U or letter grading.

248. Problems in Moral Philosophy. (4) Seminar, four hours. Intensive study of some leading current problems in moral philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

252.3B. Topics in Ethical Theory: Metaethics. (4) Lecture, three hours; discussion, one hour. Requisites: course 151A. Study and discussion of moral concepts, selected topics and contemporary issues in metaethics. Topics may include analysis of moral language, justifications, moral realism, skepticism, free will, moral motivation, etc. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C153B. S/U or letter grading.

254. Legal Theory Workshop. (1 to 8) Seminar, three hours. Students engage with work in progress on philosophical issues in law of leading scholars from around country. Presentation of works in progress by visiting scholars every two weeks. Study of students of papers to be presented to gain background in relevant topics and to be prepared for speakers' presentations. Presentation of student papers to class for discussion. Substantial analytical paper required. S/U or letter grading.

254A-254B. Legal Theory Workshop. (254A: 3 or 4/254B: 1 or 2) Seminar, three hours. Course 254A is enforced requisite to 254B. Students engage with work in progress on legal issues in law of leading scholars from around country. Presentation of works in progress by visiting scholars every two weeks. Study by students of papers to be presented to gain background in relevant topics and to be prepared for speakers' presentations. Presentation of student papers to class for discussion. Substantial analytical paper required. Concurrently scheduled with Law 555. In Progress (254A) and S/U or letter (254B) grading.

255. Seminar: Aesthetic Theory. (4) Seminar, four hours. Selected topics. May be repeated for credit with consent of instructor. S/U or letter grading.

256. Topics in Legal Philosophy. (4) Seminar, three hours. Examination of topics such as concept of law, nature of justice, problems of punishments, legal reasoning, and obligation to obey the law. May be repeated for credit with consent of instructor.

M257. Philosophy Legal Theory. (1 to 8) (Same as Law M524.) Seminar, three hours. Selected topics in philosophy of law. May be repeated for credit with consent of instructor. S/U or letter grading.

257A-257B. Philosophy Legal Theory. (1 to 8) (Same as Law M524.) Seminar, two hours. Course M257A is enforced requisite to 257B. Selected topics in philosophy of law. May be repeated for credit with consent of instructor. In Progress (M257A) and S/U or letter (257B) grading.

258. Contemporary Philosophy of Law. (4) Seminar, three hours. Limited to graduate students. Recent contributions to theoretical literature on contract law. Possible topics include purpose or function of contract law, relationship of contracts to promises, whether fault should play larger (or smaller) role in contract law, remedies approaches to breach including larger role for unjust enrichment, and contract law's treatment of fraud and deception. Readings from legal and philosophical literature. S/U or letter grading.

M259. Philosophical Research in Ethics and Value Theory. (2 to 4) Seminar, two hours. Preparation: completion of proposition requirement. Presentation of ongoing research by graduate students. Participants make presentations, must read and discuss philosophical texts related to presentations. Must be taken for 4 units in quarters in which students present their own research. May be repeated for credit with consent of instructor. S/U or grading.

Group IV. Metaphysics and Epistemology

271. Seminar: Topics in Metaphysics and Epistemology. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

272. Topics in Philosophy of Mind and Language. (4) Seminar, three hours. One or more selected topics in philosophy of mind and/or language. May be repeated for credit with consent of instructor. May not be used to satisfy special area requirement. S/U or letter grading.

274. Human Action. (4) Seminar, four hours. Intensive study of some leading current problems in philosophy of mind and/or language. May be repeated for credit with consent of instructor. May not be used to satisfy special area requirement. S/U or letter grading.


C228A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Syntax, semantics, pragmatics. Semantical concept of truth, sense and denotation, synonymy and analyticity, modalities and tenses, indirect discourse, indexical terms, semantical paradoxes. May be repeated for credit with consent of instructor. Concurrently scheduled with course C157A. S/U or letter grading.

C228B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 31. Course C228A is not requisite to C228B. Selected topics similar to those considered in course C228A, but at more advanced and technical level. May be repeated for credit with consent of instructor. Concurrently scheduled with course C127B. S/U or letter grading.

C228C. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 31. Recommended: course C228A or C228B. Selected topics similar to those considered in course C228B, but with focus on contemporary figures. May be repeated for credit with consent of instructor. Concurrently scheduled with course C127C. S/U or letter grading.

230. Seminar: Logic. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

231. Seminar: Intensional Logic. (4) Seminar, four hours. Topics may include intensional 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 not be used to satisfy special area requirement. S/U or letter grading.

235. Philosophy of Mathematics. (4) Seminar, three hours. Selected topics in philosophy of mathematics. May be repeated for credit with consent of instructor. S/U or letter grading.
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Scope and Objectives
Since the time of the ancient Greeks, a natural affinity has existed between astronomy and physics, and the intellectual development of the two disciplines has often proceeded synergistically. Newton’s discovery of the laws of mechanics and universal gravitation not only explained motion on Earth, but brought the heavens and Earth into a single quantitative framework in which both are governed by the same laws. The revolutionary discoveries of twentieth-century physics—quantum mechanics and nuclear physics—were rapidly adopted by astronomers to interpret the spectroscopic observations of the stars and to construct accurate models of stellar structure. Einstein’s general theory of relativity predicted the expansion of the universe and that most awesome compaction of matter—the black hole.

Today astronomers study the accretion of matter onto supermassive black holes in quasars and search the most distant regions of the universe to learn about the exotic physical conditions that existed when the universe’s expansion was only fractions of a second old. By measuring the gravitational interactions on distance scales from galaxies to the vast superclusters of galaxies, astronomers have concluded that most of the universe’s matter is dark or nonluminous; physicists have speculated that this dark matter may consist of yet undiscovered exotic particles that are predicted by the most advanced theories of elementary particle physics.

Department of Physics and Astronomy faculty members and students are able to study the universe in the holistic manner that is demanded by the breadth of these two disciplines.
Undergraduate Study

The Department of Physics and Astronomy offers a choice of four undergraduate majors: the BS degree program in Astrophysics, the BS degree program in Biophysics, the BS degree program in Physics, and the BA degree program in Physics. Each course taken to fulfill any of the requirements for the majors must be taken for a letter grade.

Astronomy Courses

The department offers general courses to all UCLA students, including those who are not science oriented.

Astronomy 3 is the fundamental one-term course for students who do not major in physical sciences and should be taken in the first or second year.

Astronomy 4, 5, and 6 develop the topics covered in course 3 to somewhat greater depths but are still aimed at nonscience majors.

Course 4 discusses stellar and supernova black holes; course 5 concentrates on the problem of life in the universe; course 6 discusses the structure and evolution of the universe.

Astronomy 81 and 82 are general survey courses recommended for science majors in their second year. They systematically introduce astrophysics and require a good background in physics and mathematics (at least two terms of the Physics 1 series and two terms of the Mathematics 31 and 32 series).

Students of junior and senior standing in Physics or related sciences are invited to select any of these courses: Astronomy 115, 117, 127, 140, 180.

Physics Courses

Students who wish to use physics to satisfy part of the general education requirements in the physical sciences and who have no mathematics background beyond the high school mathematics required for admission to UCLA may take Physics 10.

Physics 1Q is intended for entering freshman Physics majors and other interested students. Although it is not a required course or a part of or requisite to any general physics sequence of courses, its purpose is to indicate the nature of current research problems in physics on a level intended to be attractive to entering students with a good high school science and mathematics background.

Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH form sequences of courses in general physics for majors in Physics.

The department takes into account prior preparation in physics. If students feel their background would permit acceleration, they may be exempted from one course in the 1A, 1B, 1C sequence by taking the final examination with a class at the end of any term. This serves as a placement examination. A satisfactory score on one or both parts of the College Board Advanced Placement Physics C Test may also serve as a placement examination, but placement is not automatic. Students should discuss such possibilities with their departmental adviser.

Physics 5A, 5B, 5C form a one-year sequence of courses in basic physics for students in the biological and health sciences.

Any two or more courses from Physics 1A, 1AH, and 5A, are limited to a total of 6 units of credit.

Astrophysics BS

Learning Outcomes

The Astrophysics major has the following learning outcomes:

- 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, 31B, 32A, 32B, 33A, 33B; Program in Computing 10A or demonstrated ability to program. Systematic study of astrophysics should begin with Astronomy 81 and 82, taken in the second year. Recommended: Chemistry and Biochemistry 20A.

Transfer Students

Transfer applicants to the Astrophysics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two astrophysics courses, two years of calculus, one and one half years of calculus-based physics with laboratory for majors, and one programming course.

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

The Major


Honors Program

Senior majors in Astrophysics with a 3.5 grade-point average in all astronomy, mathematics, and physics courses are eligible for the honors program in astrophysics. In addition to completing all courses required for the major, students must complete two terms of Astronomy 199. To receive honors and highest honors at graduation, the grade-point average must remain at 3.5 and 3.75 or better, respectively, and work in course 199 must reflect original research and be accepted by the departmental honors committee.

Biophysics BS

The goal of the Biophysics major is to provide students with the undergraduate background to enable them to enter very good graduate programs in biophysics, molecular biology, and physics. As the molecular biophysics field emerges as an important and rapidly developing area of scientific research and knowledge, the major is designed to provide both the scientific/technical training and the immersion in physics and molecular biology necessary to enable students to understand and integrate these fields intellectually and to have the opportunity to become leaders in bringing the analytic and experimental techniques of both fields to bear on the complicated behavior of microbiological macromolecular 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.

Transfer Students

Transfer applicants to the Biophysics major with 90 or more units must have completed the following introductory courses prior to admission to UCLA: two years of calculus, one and
one half years of calculus-based physics with laboratory for majors, one year of general biology with laboratory for majors, and one year of general chemistry with laboratory for majors. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Physics 105A, 105B, 110A, 110B, 112, 115A, 115B, 131, M180G, C187A, C187B; either course 144 or C186; Chemistry and Biochemistry 153A, 153L; Molecular, Cell, and Developmental Biology 100 or M140 or 165A.

Recommended: Life Sciences 107, Physics 108, 117, Chemistry and Biochemistry CM160A, and guided research in chemistry and biochemistry, molecular, cell, and developmental biology, or physics. An overall 2.0 grade-point average in all upper-division courses is required.

Physics BS
The Physics BS major should be pursued if students intend to continue toward the PhD in Physics.

Learning Outcomes
The Physics major has the following learning outcomes:

- 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, 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
Required: Physics 105A, 105B, 110A, 110B, 112, 115A, 115B, 115C, 131. The remainder of the course of study consists of a plan, to be worked out by students in consultation with their designated departmental adviser, that details which courses they take to complete the degree. There are four overall requirements: (1) the plan must be worked out five terms before students expect to graduate; (2) the plan must include two courses from Physics 118 and 180A through 180Q, which should be taken in the senior year; (3) there must be three additional upper-division courses in the plan, preferably selected from Physics 108, 114, 117, M122, 123, 124, 126, 127, 128, 132, 140A, 140B, 144, 150, C187A, 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. Prepared 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 allows 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, 4AL, 4BL, 17, 18L; Chemistry and Biochemistry 20A; Mathematics 31A, 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, Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Astronomy, Master of Arts in Teaching (MAT) degree in Physics, and Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Physics.

Astronomy
Lower-Division Courses
3. Nature of Universe. (5) Lecture, three hours; discussion, two hours. Not open to students with credit for or currently enrolled in course 81 or 82. No special mathematical preparation required beyond that necessary for admission to UCLA in freshman standing. Course for general UCLA students, normally not intending to major in physical sciences, on develop-
4. Black Holes and Cosmic Catastrophes. (4) Lecture, three hours; discussion, one hour. Essentially nonmathematical course for general UCLA students that discusses black holes and related cosmic catastrophes. White dwarfs, neutron stars, and black holes are compact objects formed in violent events that terminate lives of stars and are associated with some of most energetic and explosive phenomena in astronomy: planetary nebulae and novae (white dwarfs), supernovae, pulsars, galactic X-ray sources, and gamma-ray burst sources. 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

115. Statistical Mechanics and Its Application to Astrophysics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 32B, 33A, 33B, Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Probabilistic distributions, partition functions, black body radiation, Saha equation, degeneracy. Applications to stellar atmospheres, stellar interiors, and interstellar medium. P/NP or letter grading.


Graduate Courses


stellar medium: molecular clouds, warm and hot.


277A-277B. Astronomy Research Project. (6-8) Tutorial, to be arranged. Designed for second-year graduate astronomy students. Two-term research project planned in conjunction with faculty adviser on any suitable research topic in astronomy or astrophysics, culminating in written report at end of second term. S/U (277A) and letter (277B) grading.

278. Special Topics in Astronomy. (2 or 4) Seminar, to be arranged. Informal course with lecture/seminar format, focusing on one of set of specific topics in astronomy. S/U (2-semester course) or letter (4-semester course) grading.

279. Seminar: Current Astronomical Research. (2) Seminar, one hour. Astronomy and astrophysics colloquium with lectures on current research by local and visiting researchers. S/U grading.

281. Quantum Mechanics for Astrophysicists. (4) Lecture, four hours. Designed for departmental graduate students. Quantum mechanical topics in areas of interest, applications, and problems in astrophysics. Letter grading.


283. Numerical and Statistical Methods. (4) Lecture, three hours. Topics selected by instructor in mathematical, numerical, and statistical methods of relevance to modern astrophysical research. Topics include Fourier transforms, filtering, and power spectra, numerical algorithms, N-body codes, maximum likelihood, Bayesian inference, and error estimation. Letter grading.

284. Order of Magnitude Astrophysics. (4) Lecture, three hours. Practice in real-time problem solving covering core physics. Topics selected by instructor. Students work together and individually to solve problems on blackboard using basic physics and order of magnitude estimations. Letter grading.

M285. Origin and Evolution of Solar System. (4) (Same as Earth, Planetary, and Space Sciences M285.) Lecture, four hours. Dynamical problems of solar system; chemical evidences from geochemistry, meteorites, and solar atmosphere; nucleosynthesis; solar origin, evolution, and termination; solar nebula, hydrogen-magnetic processes, formation of planets and satellites systems. Content varies from year to year. May be repeated for credit. S/U grading.


289. Research Topics in Astronomy. (2) Discussion, two hours. Advanced study and analysis of current research 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.

M297. Research Tutorial: Astroparticle Physics. (2 or 4) (Same as Physics M297.) Tutorial, one hour; discussion, two hours. Required of each graduate student doing research in this field. Seminar and discussions by faculty, postdoctoral fellows, and graduate students on topics of current interest in astroparticle physics. 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.

596A. Directed Individual Studies. (4 to 10) Tutorial, to be arranged. May be repeated at discretion of department. S/U grading.

596L. Advanced Study and Research at Lick Observatory. (4 to 12) Tutorial, to be arranged. Designed for graduate students who require observational experience, as well as those working on observational problems for their thesis. May be repeated at discretion of department. S/U grading.

599. PhD Research and Writing. (10 to 12) Tutorial, to be arranged. May be repeated at discretion of department. S/U grading.

Physics

Lower-Division Courses

1A. Physics for Scientists and Engineers: Mechanics. (5) Lecture/demonstration, four hours; discussion, one hour. Recommended preparation: high school physics, one year of high school calculus or Mathematics 31A and 31B. Enforced requisites: Mathematics 30A or 30B. Enforced corequisite: Mathematics 32A. Recommended corequisite: Physics 32B. Motion, Newton’s laws, work, energy, and angular momentum, rotation, equilibrium, gravitation. P/NP or letter grading.

1AH. Physics for Scientists and Engineers: Mechanics (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Recommended preparation: high school physics, one year of high school calculus or Mathematics 31A and 31B. Enforced corequisite: Mathematics 32A. Recommended corequisite: Physics 32B. Motion, Newton’s laws, work, energy, and angular momentum, rotation, equilibrium, gravitation. P/NP or letter grading.


1CH. Physics for Scientists and Engineers: Electricity and Magnetism. (5) Lecture, three hours. Enforced requisites: courses 1A or 1AH, 1B or 1BH. Enforced corequisite: course 1C or 1CH. Experiments on electric fields, forces, and potentials. Magnetic fields. Linear and nonlinear devices. Resistors, capacitors, and inductors. Modern circuits. Geometrical and physical optics. Letter grading.

5A. Physics for Life Sciences Majors: Mechanics and Energy. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Requires: Life Sciences 30A, 30B, or Mathematics 3A, 3B, 3C (SC may be taken concurrently). Study of forces, motion, energy, including thermal energy, with applications to biological and biochemical systems. P/NP or letter grading.

5B. Physics for Life Sciences Majors: Thermodynamics, Fluids, Waves, Light, and Optics. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Requires: course 5A. Thermal properties of matter, free energy, fluids, ideal gas, diffusion, oscillations, waves, sound, light, aesthetics. With applications to biological and biochemical systems. P/NP or letter grading.

5C. Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Requires: course 5A. Electrostatics in vacuum and in water. Electricity, circuits, magnetism, quantum, atomic and nuclear physics, radioactivity, with applications to biological and biochemical systems. P/NP or letter grading.

6A. Physics for Life Sciences Majors: Mechanics. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Requires: courses 6A, 6B. Enforced corequisite: Mathematics 3A, 3B, 3C. Recommended corequisite: Physics 32B. Corequisite: Mathematics 3C. Not open for credit to students with credit for course 6AH. Motion, Newton laws, energy, linear and angular momentum, rotation, gravitation, electrical and gravitational fields, wave optics, angular momentum, rotation, gravitation, and applications to biological and biochemical systems. P/NP or letter grading.

6B. Physics for Life Sciences Majors: Electromagnetism. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Requires: courses 5A, 5B, 5C. Enforced corequisite: Mathematics 3A, 3B, 3C. Recommended corequisite: Physics 32B. Corequisite: Mathematics 3C. Not open for credit to students with credit for course 6AH. Review of current research by local and visiting researchers. Two-term research project culminating in written report at end of second term. S/U grading.
6B. Physics for Life Sciences Majors: Waves, Electromagnetism, and Magnetism. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: course 6A or 6AH. Not open for credit to students with credit for course 6BH. Mechanical waves, sound, electric and magnetic, electromagnetic waves, biological applications. P/NP or letter grading.

6C. Physics for Life Sciences Majors: Light, Fluids, Thermodynamics. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: course 6B. Not open for credit to students with credit for course 6CH. Geometrical optics, fluid statics and dynamics, thermodynamics. Selected topics from foundations of quantum mechanics; atoms, nuclear and particle physics; relativity; medical detectors; biological applications. P/NP or letter grading.

10. Physics, (4) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 1A, 1AH, 5A, or 6A. Special mathematical preparation beyond that necessary for admission to UCLA in freshman standing not required. Discussion of physics underpinnings of energy sources and consumption, with emphasis on renewables. Global view of energy balance in our lives from point of view of physical system. Energy is used in everyday life (transportation, 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 limitations of each technology to master concepts and skills and intuition in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP or letter grading.


18L. Modern Physics Laboratory. (4) Lecture, one hour; laboratory, six hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4AL, 4BL, 17. Experimental methods in modern electronics, optics, quantum mechanics, superconductor, superconductivity, superfluidity. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in and outside of their expertise and illuminating many paths of discovery at UCLA. P/NP grading.

87. Introduction to Biophysics. (4) Seminar, three hours. Enforced requisites: courses 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or 6A, 6B, and 6C, Chemistry 20A, 20B, Life Sciences 1, 3, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A. Specific examples of diverse biological design such as scaling of metabolic activity, bone and muscle mass, cell size, cell membranes and pumps, heart and blood circulation, swim bladders, insect vision, magnetic bacteria, etc., studied quantitatively using elementary mathematics and physics principles. P/NP or letter grading.

88. Lower Division Seminar: Current Topics in Physics. (2) Limited to freshmen/sophomores. Intensive exploration of a particular theme or topic based on research. Consult Schedule of Classes for topics to be offered in a specific term. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. 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.

98H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

98A. Workshop: Numerical Computational Physics. (1) Laboratory, one hour. Introductory presentations of computational software packages—Mathematica, Mathcad, and MATLAB. After some familiarization with most common software functions, development of student personal preferences and assessment of advantages and strong points of each by solving problems in computational physics. P/NP grading.

98XA. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours. Enforced requisite: associated undergraduate lecture course in physics for life sciences majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of problem-solving skills and intuition in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP grading.

98XB. PEERS Collaborative Learning Workshops for Physical Sciences and Engineering Majors. (1) Laboratory, three hours. Associated with upper-division physical science courses intended for close participation of students in their daily lives and what physical processes could produce it. P/NP or letter grading.

108. Optical Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 105B. Interaction of light with matter; dispersion theory, oscillator strength, line widths, molecular scattering. Coherence theory. Kinetic formulation of diffusion theory, crystal optics, optical rotation, electro and magneto optical effects. Additional topics of fundamental or current interest. P/NP or letter grading.


112. Thermodynamics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 111B. Fundamentals of thermodynamics, including first, second, and third laws. Statistical mechanics. Thermodynamic point of view to thermodynamics. Some simple applications. P/NP or letter grading.

114. Mechanics of Wave Motion and Sound. (4) Lecture, three hours; discussion, one hour. Enforced requisite: 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 measurement. Includes brief introduction to electronic modules and electronic devices. Viewed from practical viewpoint, followed by examination of typical circuits for scientific instrumentation and study of methods of computer data acquisition and signal processing. P/NP or letter grading.
Lecture, three hours; laboratory, four hours. Requisites: courses 1A, 1B, 1C, 117, Mathematics 32A, 32B, 33A. 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 projectors, cosmic ray detector. P/N/P or letter grading.

118. Electronics for Physical Measurements. (4) Lecture, three hours; laboratory, four hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Introduction to physics of particle beams, and renewable energy sources. Letter grading.

123. Atomic Structure. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Theory of atomic structure. Interaction of radiation with matter. P/N/P 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. Nuclear properties, nuclear forces, nuclear structure, nuclear decays, and nuclear reactions. P/N/P or letter grading.

126. Elementary Particle 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, mesons, quarks, and leptons; conservation laws, symmetries and broken symmetries; the Standard Model; experimental techniques; new physics at the new accelerators. P/N/P or letter grading.


132. 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. Corequisite: course 115C. 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, mesons, quarks, and leptons; conservation laws, symmetries and broken symmetries; the Standard Model; experimental techniques; new physics at the new accelerators. P/N/P or letter grading.

140A. Introduction to Solid-State Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 112. Introduction to basic theoretical concepts of solid-state physics with applications. Crystal symmetry; cohesive energy; diffraction of 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. Introduction to problems and to required numerical methods in lectures so students can write programs in one modern programming language (as their choice is decided) and carry out numerical experiments with it, with results documented in reports. P/N/P 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), Mathematics 32B, 33A, 33B, 33C. Corequisite: course 115C. Introduction to physics of charged-particle beams as presented as a unified subject. Physics of charged-particle beams, covering single-particle motion in electromagnetic fields, inverse focusing, acceleration mechanisms, linear and circular accelerators, and advanced topics. Some fundamentals of laser physics, including tunable and broadening mechanisms, linear light optics, laser resonators, and advanced topics and applications. P/N/P or letter grading.


159. Nuclear Physics Laboratory. (4) Lecture, three hours; computer terminal, four hours. P/N/P or letter grading.

160. Numerical Analysis Techniques and Particle Simulations. (4) Lecture, three hours; computer terminals, six hours. Preparation: minimum knowledge of computer programming (Fortran). Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32A, 32B, 33A, 33B. Vectors and fields in space, linear transformations, matrices, and operators; Fourier series and integrals. P/N/P or letter grading.
netism, and thermodynamics. Some understanding of fluid mechanics, quantum physics, statistical mechanics, nuclear physics also helpful, but those concepts introduced as needed. Understanding energy is of primary importance to our world today, as we face serious challenges to finding adequate energy sources to meet world demand, and as energy production is often accompanied by undesirable environmental and social side-effects. P/N/P or letter grading.

188L. Special Laboratory Occurrences in Physics. (1) Lecture, one hour; laboratory, two hours. Limited to junior/senior departmental majors. Departmentally sponsored temporary laboratory courses such as pilot courses or training faculty members. May be repeated for credit, P/N/P or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N/P 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 supervised by visiting faculty members 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 Physics. (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. Led by one supervising faculty member. May be repeated for credit, P/R grading.

191. Variable Topics Research Seminars: 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 by petition. P/N/P or letter grading.

192. Undergraduate Practicum in Physics. (2 to 4) Seminar, three hours. Limited to juniors/seniors. Training and experience for prospective graduate 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/N/P grading.

193. Journal Club Seminars: Physics. (2) Seminar, two hours. Students assist in preparation of talks and presentation of papers. May be repeated for credit. P/N/P 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 of faculty members or students with regard to understanding methodology in field and laboratory equipment. May be repeated for credit. P/N/P grading.

195. Research Apprenticeship in Physics. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors with overall 3.0 grade-point average. Entry-level research apprenticeship for upper-division students. Students also must have overall 3.0 grade-point average. May be repeated for credit. Individual contract required. P/N/P grading.

197. Individual Studies in Physics. (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 reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/N/P or letter grading.

198. Honors Research in Physics. (2 to 4) Tutorial, 12 hours. Limited to juniors/seniors with overall 3.0 grade-point average 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 individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/N/P 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. Atomic Structure. (4) N\textsuperscript{+} symbols, continuous groups, fractional parentage coefficients, in electronic systems.


224. Introduction to Strong Interaction. (4) Lecture, three hours. Evidence concerning strong inter-acation, 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.


230D. 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 Langrangians, 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.


232A-232B. Relativity. (4–4) Special and general theories, with applications to elementary particles and astrophysics.

232C. Special Topics in General Relativity. (4) Lecture, four hours. S/U or letter grading.


M236. Geometry and Physics. (4) (Same as Mathematics M217.) Lecture, three hours. Interdisciplinary course on topics at interface between physics and mathematics and physics 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.


237B. String Theory. (4) Lecture, four hours. Requisite: course 237A. Topics may include toroidal compactification, t-duality and d-branes, supersymmetric strings, orbifolds, Calabi-Yau compactifications and physics in four dimensions, and strings at strong coupling and dualities. S/U or letter grading.


243M. Statistical Mechanics of Living Systems from Active Matter to Immune System. (2 to 4) Seminar, four hours. Exploration of how concepts and models from condensed matter physics can be used to gain quantitative and intuitive understanding of biological phenomena. Introduction to analytical and computational methods for describing stochastic complex systems, with application to problems in mechanics and dynamics of active matter and evolutionary dynamics of immune system. S/U or letter grading.


266. Seminar: Propagation of Waves in Fluids. (2 to 4) Seminar, three hours. S/U or letter grading.

268. Seminar: Spectroscopy. (2 to 4) Seminar, three hours. S/U or letter grading.

269A. Seminar: Nuclear Physics. (2 to 4) Seminar, three hours. S/U or letter grading.

269B. Seminar: Elementary Particle Physics. (2 to 4) Seminar, three hours. S/U or letter grading.

269C. Seminar: Accelerator Physics. (2 to 4) Seminar, three hours. Physics principles governing design and performance of particle accelerators, using existing accelerators as examples and empha- sizing interplay among design goals, component per- formance, and operational experience. S/U or grading.

269D. Strobe Seminar Series: Frontiers in Imaging and Microscopy. (1) Seminar, one hour. Discus- sion, with leading figures of frontiers of imaging and mi- croscopy fields, including multi-dimensional electron microscopy at atomic resolution, real-time functional microscopy, X-ray microscopy of advanced materials, advanced optical nano-imaging, and integrative approaches and underpinning technologies for dif- ferent imaging modalities. May be repeated twice for credit. S/U grading.

26EC. Advanced Plasma Laboratory. (4) Lecture, two hours; laboratory four hours. Requisites: courses M122, 180E. Laboratory experiments on behavior of plasmas in magnetic fields. Study of basic physics of particle motions, distribution functions, and fluid dyn- amics. Plasma waves and nonlinear phenomena. Advanced probe, microwave and plasma diagnostics.


C286. Neuropsychophysics: Brain-Mind Problem. (4) (For- merly numbered CM286.) Lecture, three hours; dis- cussion, one hour. Requisites: courses 1A, 1B, and 1C, or 5A, 5B, and 5C, or Chemistry 1A or 20A, Mathematics 3A, 3B, 3C, 33A. How does mind emerge from brain? Provides summary of basic biophysics of neurons, synapses, and plasticity. Intro- duction to commonly used experimental and theoretical techniques of measuring, quantifying, and mod- eling neural activity, and their relative strengths and weaknesses and use of them to understand link be- tween neural activity and behavior. Concurrently scheduled with course C186. S/U or letter grading.


290. Research Tutorial: Plasma Physics. (2 or 4) Three terms required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion by staff and students directed toward problems of current research interest in plasma physics group, both experimental and theo- retical. May be repeated for credit. S/U grading.

291. Research Tutorial: Elementary Particle Theo- ry. (2 or 4) Requisites: courses 226A, 230A, 230B. Required of each graduate student doing research in this field, ordinarily during second or third year. Sem- inar and discussion by staff, postdoctoral fellows, and graduate students. May be repeated for credit. S/U grading.

292. Research Tutorial: Spectroscopy, Low-Tem- perature, and Solid-state Physics. Required of each graduate student doing research in these fields, ordinarily during second or third year. Seminar and discussion by staff and students on problems of current research interest. Introduction to spectroscopy, low-temperature, and solid-state physics. May be re- peated for credit. S/U grading.

293. Research Tutorial: Current Topics in Physics. (2) Lecture, one hour. Seminar and discussion by staff on current topics in physics, both ex- perimental and theoretical (topics not limited to one field of physics). Strongly recommended for graduate students in physics. May be repeated for credit. S/U grading.
PHYSICS AND BIOLOGY IN MEDICINE

Interdepartmental Program
David Geffen School of Medicine
B2-115 Center for Health Sciences
Box 951721
Los Angeles, CA 90095-1721

Physics and Biology in Medicine 310-825-7811
Program e-mail

Directed Individual Studies. (2 to 12) Tutorial,
by arrangement. May be repeated for credit.
S/U grading.

Preparation for Master's Comprehensive Ex-
amination or PhD Qualifying Examinations. (4)
Tutorial, to be arranged. May be repeated twice
for credit. S/U grading.

Master's Thesis Research and Writing. (4) Tu-
itorial, to be arranged. May be repeated twice
for credit. S/U or letter grading.

PhD Research and Writing. (4 to 12) Tutorial,
to be arranged. May be repeated for maximum
of 18 units. S/U grading.

Physics and Biology in Medicine

Upper-Division Courses

Directed Research in Biomedical Physics. (2
to 4) (Formerly numbered Biomedical Physics 198.)
Tutorial, 2 to 4 hours. Limited to juniors/seniors. Su-
 pervised individual research or investigation under guid-
ance of faculty mentor. May be repeated for credit.
Individual contract required; consult Under-
graduate Research Center. May be repeated. P/NP
grading.

Graduate Courses

Physics and Chemistry of Nuclear Medicine.
(4) (Formerly numbered Biomedical Physics 200A.
Lecture, three hours; discussion, one hour. Nuclear
structure, statistics of radioactive decay, nuclear radi-
ations and their interaction with matter, nuclear decay
processes, nuclear reactions, and compartment
models. Physical and chemical properties of radioac-
tive nuclides. Applications used in nuclear medicine.
Basic principles of nuclear medicine imaging, SPECT,
and PET. S/U or letter grading.

Nuclear Medicine Instrumentation. (4) (For-
merly numbered Biomedical Physics 200B.) Lecture,
three hours; laboratory, three hours. Required: course
200A. Introduction to nuclear medicine instrumenta-
tion, including well ionization chambers, probe and
well scintillation detectors, scintillation cameras,
and single photon and positron emission computed to-
mography. S/U or letter grading.

Medical Radiation Accelerator Design. (4) (For-
merly numbered Biomedical Physics 201.) Lecture,
three hours. Required: course 216. Overview of
physical principles involved in design of current par-

Graduate Study

Students answer critical questions through discus-
sion and analysis of current topics in physics. Dis-
cussion of current research and literature in research
field of interest for each graduate student doing research in
this field. Seminar and discussion by staff and students on
current problems in experimental elementary particle physics.
May be repeated for credit. S/U grading.

Seminar and discussion by faculty, postdoctoral fel-
los, and graduate students on topics of current in-
put in astrophysics. May be repeated for credit.
S/U grading.

Seminar and discussion by staff and students on current prob-
lems in experimental elementary particle physics.
May be repeated for credit. S/U grading.

Seminar and discussion on nuclear physics by staff and
students, in both experiment and theory. May be re-
peated for credit. S/U grading.

Required of each graduate student doing research in this
field, ordinarily during second or third year. Seminar and
discussion on nuclear physics by staff and students,
in both experiment and theory. May be re-
peated for credit. S/U grading.

Required of each graduate student doing research in this
field, ordinarily during second or third year. Seminar and
discussion on nuclear physics by staff and students,
in both experiment and theory. May be re-
peated for credit. S/U grading.

Required of each graduate student doing research in this
field, ordinarily during second or third year. Seminar and
discussion on nuclear physics by staff and students,
in both experiment and theory. May be re-
peated for credit. S/U grading.

Seminar and discussion on nuclear physics by staff and
students, in both experiment and theory. May be re-
peated for credit. S/U grading.

Seminar and discussion on nuclear physics by staff and
students, in both experiment and theory. May be re-
peated for credit. S/U grading.

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 (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 Under-
graduate Research Center. May be repeated. P/NP
grading.

202A. Nuclear Medicine. (4) (Formerly numbered Biomedical Physics 202A.) Clinic, four hours. Requisite: course 200B. S/U or letter grading.

202B. Mammography. (1) (Formerly numbered Bio-

202C. Radiation Therapy. (4) (Formerly numbered Biomedical Physics 202C.) Clinic, four hours. Requisites: courses 203, 204, 208, 221. S/U grading.

203. Physics of Radiation Therapy. (4) (Formerly numbered Biomedical Physics 203.) Lecture, three hours; discussion, one hour. Requisite: course 216. Radiation instruments, Radiation therapy, clinical applications in treatment planning. Methods of measuring radiation quantities. Calibration of radia-

204. Introductory Radiation Biology. (4) (Formerly numbered Biomedical Physics 214.) Lecture, four hours. Effect of ionizing radiation on chemical and bi-

205. Physics of Diagnostic Radiology. (4) (Formerly numbered Biomedical Physics 205.) 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 contrast, imaging procedures, X-ray protec-

206. Advanced Instrumentation. (4) (Formerly numbered Biomedical Physics 206.) Lecture, three hours; discussion, one hour. Requisite: course 205. Intro-

207. Monte Carlo Methods with Applications for Radiological Sciences. (4) (Formerly numbered Biomedical Physics 207.) Lecture, two hours; laboratory, one hour. Requisites: courses 203A, 204, 216. Intro-

208. Medical Physics Laboratory: Radiation Therapy. (4) (Formerly numbered Biomedical Physics 208B.) Discussion, two hours; laboratory, four hours. Requisite: course 203. Hands-on experience per-

209. Signal and Image Processing for Biomedical Physics. (4) (Formerly numbered Biomedical Physics 214.) Lecture, three hours; discussion, one hour. Requisite: course 205. Special requirements of mammography, design of dedicated mammography X-ray units from generators and tubes through screen/film cassettes, Stereotactic biopsy units, cost/benefit controversy of screening mammography, computer-aided diagnosis, telemammography, breast MRI, and breast ultrasound. S/U or letter grading.

210. Computer Vision in Medical Imaging. (4) (Formerly numbered Biomedical Physics 210B.) Lecture, three hours; discussion, one hour. Requisite: course 220. Basic principles of computer vision and image processing.

211. Medical Ultrasound. (4) (Formerly numbered Biomedical Physics 211.) Lecture, 90 minutes; labora-

212. Biochemical Basis of Positron-Emission Tomography. (PET). (4) (Formerly numbered Biomedical Physics 212.) Lecture, three hours; discussion, one hour. Introduction to PET: basic principles and application of radiotopes to study metabolism noninvasively by positron-emission tomography (PET). Validation of kinetic models to derive quantita-

213. Quantitative Autoradiography. (4) (Formerly numbered Biomedical Physics 213.) Lecture, three hours; discussion, one hour. Application of quantita-

214. Medical Image Processing Systems. (4) (Formerly numbered Biomedical Physics 214.) Lecture, three hours; discussion, one hour. Requisites: courses 209, 210. Advanced image processing and image analysis techniques applied to medical images. Dis-

215. Breast Imaging Physics and Instrumentation. (4) (Formerly numbered Biomedical Physics 215.) Lecture, three hours; laboratory, two hours. Requisite: course 205. Special requirements of mammography, design of dedicated mammography X-ray units from generators and tubes through screen/film cassettes, Stereotactic biopsy units, cost/benefit controversy of screening mammography, computer-aided diagnosis, telemammography, breast MRI, and breast ultrasound. S/U or letter grading.

216. Fundamentals of Dosimetry. (4) (Formerly numbered Biomedical Physics 216.) Lecture, three hours; laboratory, one hour. Review of fundamental in-

217. Statistics and Data Analysis in Biomedical Physics. (2) (Formerly numbered Biomedical Physics 217.) Lecture, two hours; laboratory, one hour. Requir-

218. Radiologic Functional Anatomy. (4) (Formerly numbered Biomedical Physics 218.) Lecture, three hours; discussion, one hour. Introduction to human anatomy, cell biology and chemistry visualized through microscopy, molecular imaging, radiography, CT, MRI, ultrasonography, PET, and SPECT. Letter grading.

219. Principles and Applications of Magnetic Resonance Imaging. (4) (Formerly numbered Biomedical Physics 219.) (Same as Biengineering M219.) Lecture, three hours; discussion, one hour. Basic principles of magnetic resonance (MR), physics, and image formation. Emphasis on hard-

220A-220D. Laboratory Rotations in Biomedical Physics. (2–2) (Formerly numbered Biomedical Physics 220A-220D.) Laboratory, two hours. Labora-

221. Applied Health Physics. (4) (Formerly num-

222. Advances in Medical Magnetic Resonance: Clinical MR Spectroscopy and Fast MRI Techniques. (4) (Formerly numbered Biomedical Physics 222.) Lecture, three hours; laboratory, one hour. Req-

223. Seminar: Radiation Biology. (4) (Formerly num-

224. Contrast Mechanisms and Quantification in Magnetic Resonance Imaging. (4) (Formerly numbered Biomedical Physics 224.) Lecture, four hours. Exploration of physiologic and molecular mechanisms that impact on response of normal and malignant tis-

225. Human Disease: Current and Future Role of Biomedical Physics. (4) (Formerly numbered Biomedical Physics 225.) Lecture, three hours; discus-

226. Medical Physics Laboratory: Medical Imaging. (4) (Formerly numbered Biomedical Physics 208A.) Discussion, two hours; laboratory, four hours. Requisite: course 226. Hands-on experience per-

227. Human Disease: Current and Future Role of Biomedical Physics. (4) (Formerly numbered Biomedical Physics 227.) Lecture, three hours; discus-

228. Magnetic Resonance Imaging. (4) (Formerly numbered Biomedical Physics 228.) Lecture, four hours. Preparation: course 226. Introduction to magnetic re-

229. Signal and Image Processing for Biomed-

230. Basic Calculus. (3) (Formerly numbered Biomedical Physics 230.) Lecture, three hours. Preparation: basic calculus or linear algebra and undergraduate probability. Math-

231. Medical Physics and Biology in Medicine / 623
269. Seminar: Medical Imaging. (1) (Formerly num-
bered Biomedical Physics 269.) Seminar, one hour.
Continuous registration required of students in med-
cal 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) (Formerly numbered Biomed-
ical Physics M285, Neuroscience M285, Psychol-
yogy M278.) Lecture, three hours. In-depth examina-
tion of activation imaging, including MRI and electrophysio-
logical methods, data acquisition and analysis, exper-
imental design, and results obtained thus far in
human systems. Strong focus on understanding tech-
nologies, how to design activation imaging para-
digms, and how to interpret results. Laboratory visits
and design and implementation of functional MRI ex-
periment. S/U or letter grading.

286. Image Registration Techniques. (4) (Formerly
numbered Biomedical Physics 286.) Lecture, four
hours. Preparation: strong background in mathemat-
ics and image processing. Laboratory visits and
implementation details. Programming of registration
methods in MATLAB/C/C++/CUDA/JAVA interfaces
so students learn all registration methods currently in
investigation. Letter grading.

M424. Functional Magnetic Resonance Imaging
Journal Club. (2) (Formerly numbered Biomedical
Physics M424) (Same as Psychiatry M424.) Discus-
sion, 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 understanding methods and applications.
Examples include tractography through diffusion tensor
imaging, jittered event-related experimental designs,
parallel receiver MRI imaging, integrated electrophys-
iology, and how to interpret results. Laboratory visits
and design and implementation of functional MRI ex-
periment. S/U or letter grading.

(1-1-1) (Formerly numbered Biomedical Physics
260A-260B-260C.) Seminar, one hour. Critical study
courses 203, 216. Designed to provide theoretical
and practical understanding of clinical imaging
specialties. Topics include imaging physics, in-
cluding neuroscience and behavioral physiology.

268. Radiopharmaceutical Chemistry. (4) (Formerly
numbered Biomedical Physics 268.) Lecture, two
hours; discussion, two hours. Introduction to ad-
vanced concepts in chemistry of radiopharma-
cueticals and technologies for radiopharmaceutical pro-
duction and analysis. Areas of focus are (1) radio-
chemistry with fluorine-18 and other isotopes, (2)
technologies for synthesis automation and optimiza-
tion, (3) analytical instrumentation and tools in radio-
chemistry, and (4) PET tracer design and develop-
ment. Introduction to multiprocessor design and imple-
mentation, tracer design, radioisotopes, and tracer design
and synthesis. Design, analysis, and implementation
of PET probes. S/U or letter grading.

PHYSIOLOGICAL SCIENCE
See Integrative Biology and Physiology
Graduate Courses


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 gates and ion currents, as well as relationship between macroscopic conductance and single channel properties discussed in analytical detail using original publications.

296. Current Topics in Physiology. (2 to 4) Lecture, one hour; discussion, one hour. Designed for graduate students. Students read primary literature in a specified area and conduct or participate in discussions on these papers. May be repeated for credit. S/U or letter grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. S/U grading.

597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. S/U grading.


- **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

**Political Science 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. Students are required to maintain a 2.0 overall grade-point average in all upper-division political science courses.

Upper-division political science courses are organized into six fields: (I) political theory, (II) international relations, (III) American politics, (IV) comparative politics, (V) methods and models, and (VI) race and ethnic politics.

In fulfilling the requirement of 10 upper-division political science courses, students must satisfy the following:

1. A concentration in one field consisting of at least three upper-division courses in that field
2. A distribution requirement of at least one upper-division course in each of three different fields outside the field of concentration; multifield courses from the concentration field may not satisfy a distribution field
3. Four additional political science courses to comprise the total of 10

Courses 191H, 195CE, 198, and 199 may not be applied toward either the concentration or distribution requirement.

Honors Program

The department honors program is open to seniors and to students who (1) have completed five upper-division political science courses (two of which are in one field), (2) have a 3.5 grade-point average in upper-division political science courses, and (3) are eligible for College of Letters and Science honors. Students should have substantial experience in writing research papers before they enter the honors program or course 191H.

Students wishing to qualify for graduation with departmental honors must complete courses 191H and 198, in which a senior thesis is written. Successful completion of the honors program is indicated on the transcript and diploma.

Graduate Study

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 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. (S) Lecture, three or four hours; discussion, one hour (when scheduled). 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. (S) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 50R. Not open for credit to students with credit for course 6. Introduction to collection and analysis of political data, with emphasis on application of statistical reasoning to study of relationships among political variables. Use of computer as aid in analyzing data from comparative politics, P/NP or letter grading.

10. Introduction to Political Theory. (S) 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. (S) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual significance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. World Politics. (S) Lecture, three hours; discussion, one hour. Recent and all of upper-division students concentrating in Field II, Introduction to problems of world politics. P/NP or letter grading.

30. Politics and Strategy. (S) 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. (S) 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. (S) 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. (S) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 6R. Not open for credit to students with credit for course 50. Comparative study of constitutional principles, governmental institutions, and political processes in selected countries, with emphasis on presentation and evaluation of quantitative evidence. P/NP or letter grading.

60. Ethics and Governance. (S) 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 undercut social cognition and collective action. Such understanding needs to develop bottom-up through experiential and interactive learning, active and analytical learning, systems thinking, and real-world application. P/NP or letter grading.

89H. Honors Seminars. (S) 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 as led by lower-division instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (S) 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 as led by lower-division 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. May be 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). Preparatory for lower-division policy courses. 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. Exposition and critical analysis of major thinkers such as Plato, Aristotle, Thucydides, St. Augustine, Aquinas, Machiavelli, and More and questions such as forms of government, citizenship, justice, happiness, rhetoric, religion, emotion. P/NP or letter grading.

M111B. Early Modern Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Machiavelli, More, Montaigne, Hobbes, Locke, Rousseau, Smith, Condorcet, and Kant and questions such as representation, property, autonomy, and political economy. P/NP or letter grading.

M111C. Late Modern Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Bentham, De Tocqueville, Hegel, Mill, Marx, Nietzsche, Arendt, and Foucault and questions such as alienation, power, participation, and difference. P/NP or letter grading.

M112A. Democratic Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical analysis of selected major authors, issues, and arguments in contemporary democratic theory.

M112B. Invention of Democracy. (5) (Same as Classics M125.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seiors. 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 diverging interests. Examination of history and theory of ancient democracy. P/NP or letter grading.

M113A. Problems in 20th-Century and Contemporary Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study and interpretation of theorists who have focused their analyses on social and political problems of 20th-century and postwar world. P/NP or letter grading.

M113B. Politics, Theory, and Film. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 10. Designed for ju-
2.14A. American Political Thought I, 1620 to 1865.
(Formerly numbered 114.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of origin and development of American political thinkers from Puritan period to Civil War. P/NP or letter grading.

114B. American Political Thought II, 1865 to Present.
(4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of American political thinkers from Puritan period to Civil War. P/NP or letter grading.

M115C. Citizenship and Public Service.
(4) (Same as Civic Engagement M115.) 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 work 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 race. Use of human universals—gratitude, factionalism, and identity politics; multiculturalism and one-world ethics. Disagreement includes moral, ideological, and partisan disagreement; reasonable and irreconcilable kinds of disagreement; groupthink and group polarization; herding and information cascades. Democracy stands for political mechanisms of information aggregation; political mechanisms to resolve differences, or to keep peace among people with irreconcilable differences; emergence and spread of democracy, liberty, and rule of law. Letter grading.

115E. Humanist Practice and Civic Culture.
(4) Seminar, three hours. Enforced requisites: courses 10, M115C. Designed for juniors/seniors. Exploration of connection between humanist practices (philosophy, sociology, science, republican self-fashioning) and promotion of civic ethos—culture that would promote flourishing civil society. How has humanism informed our Western understanding of republicanism and civic responsibility? What aspects of our humanist heritage maintain an unwavering world that many describe as posthumanist? What form of civic culture is most appropriate for North American citizens in 21st century? P/NP or letter grading.

116A. Marxism.
(4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical analysis of origins, nature, and development of Marxist political theory. P/NP or letter grading.

116B. Continental Political Thought.
(4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of important text in continental political theory, including relationships between ideas and reason, skepticism, and political freedom. P/NP or letter grading.

(4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of law and legal systems; consideration of fundamental legal concepts; contributions and influence of modern schools of legal philosophy in relation to law and government. Letter grading.

118. Laws of War and Peace from Concept of America to Declaration of Human Rights (1949).
(4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Designed for juniors/seniors. Examination of theories of interna- tional law, political law, and influence of 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. Required: course 10. Designed for juniors/seniors. Intensive examination of one or more special problems appropriate for role of political theorist offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

M119A. Modern Receptions of Ancient Political Thought.
(4) [Same as Classics M124.] Lecture, three hours. Designed for juniors/seniors. Study of how Western culture has conceived and reinterpreted political thought of ancient Greece and Rome. Topics include reception of influential modern conceptions 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). Required: courses 20, 115A. Designed for juniors/seniors. Exposition and critical analysis of world politics, as well as live lectures and discussion on complex problems such as terrorism, nuclear proliferation, and Arab-Israeli conflict. P/NP or letter grading.

121A. Studies in Formulation of American Foreign Policy.
(4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of 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). Required: course 20. Designed for juniors/seniors. Study of problems of international system seen as community capable of cooperation and development. P/NP or letter grading.

M122B. Global Environment and World Politics. (4) [Same as Environment M161.] Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 20. Designed for juniors/seniors. Study of causes of war and conditions of peace. Required readings include both statistical and formal models. P/NP or letter grading.

123A. International Law. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required: course 20. Designed for juniors/seniors. Study of law and principles 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). Required: course 20. Designed for juniors/seniors. Study of political aspects of international economic issues. 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/se- niors. 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, and threats to security in nuclear age. Nuclear arms race; relationship between deter- rence 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). Required: course 20. Designed for juniors/seniors. Theory 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. Examination of external relations of the United Kingdom, West Germany, France, Italy, and other European members 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). Required: courses 20, 128A. 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 Eastern Europe, China, and the Commonwealth of Independent States.

129. Diplomacy and War. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required: course 20 or 137A. Designed for juniors/seniors. Analysis of role of diplo- macy, international history and history of international politics, promotion of international cooperation. Required readings include both statistical and formal models. Prior exposure to both useful but not re- quired. P/NP or letter grading.

132A-M132B. International Relations of Middle East.
(4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/se- niors. P/NP or letter grading. 132A. Required: course 20. Contemporary regional issues and conflicts, with particular attention to inter-Arab politics, Arab-Israeli problem, and Persian Gulf area. M132B. (Same as Honors Colloquium M157.) Role of great powers in Middle East, with emphasis on American, Soviet, and European policies since 1945.

134. Foreign Policy Decision Making and Tools of Statecraft.
(4) Lecture, three or four hours; discussion, one hour (when scheduled). Required: course 20A. Designed for juniors/seniors. Contrasts purposes, procedures, and decisions that lead to decision making. Impact of strategic interaction and situa- tional factors on foreign policy decision making. Implications for policy choice of tools of statecraft (i.e., threats/promises, military/economic/diplomacy). P/NP or letter grading.

135. International Relations of China.
(4) Lecture, three or four hours; discussion, one hour (when scheduled). Required: course 20. Designed for juniors/seniors. Relations of China with its neighbors and other powers, with emphasis on contemporary interests and policies of China vis-à-vis U.S. P/NP or letter grading.

137A. International Relations Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required: course 20. Designed for juniors/seniors. Examination of various theoretical approaches to international rela- tions. P/NP or letter grading.

138A. International Politics, 1815 to 1914. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required: course 20. Designed for juniors/seniors. Classical period of European great power politics, beginning with peace settlement at end of Napoleonic wars and ending with coming of World War I. P/NP or letter grading.

138B. International Politics, 1914 to the Present.
(4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. First World War, failure of peace settlement, origins of Second World War, Cold War, and post-Cold War pe- riod. P/NP or letter grading.
139. Special Studies in International Relations. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: two courses in Field II, or course 20 and one course in Field II. Designed for juniors/seniors. Intensive examination of one or more special problems related to international relations. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

Field III: American Politics

140A-140B-140C. National Institutions. (4–4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed 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 party system on the presidency and national policy-making. 140C. Supreme 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 cases.

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. Exploration 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 juniors/seniors. Study of character and formation of political attitudes and public opinion. Role of public opinion in elections, relationship of political attitudes to the vote decision, and influence of public opinion on public policy formulation. P/NP or letter grading.

141C. Political Behavior Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Advanced course in use of quantitative methods in study of political behavior, especially in relation to voting patterns, political participation, and techniques of data gathered in computer-aided analyses of issues and problems treated in course 141B and similar courses. P/NP or letter grading.

141E. Elections, Media, and Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: 30. Designed for juniors/seniors. Analysis of elections and media, including game-theoretic analysis. Downs spatial model of elections, valence characteristics in elections, campaign finance, endogeneity problems in social sciences, liberal bias in media, industrial organization of news industry, and effects of media on voter decisions. Media may be applied toward Field III or V. P/NP or letter grading.

142A. Political Parties and Interest Groups. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Organization and activities of political parties in the U.S. Attention to historical development of the parties, nature of party change, campaign functions and electoral role of the parties, membership problems of the parties, political finance, and policy formulation practices. P/NP or letter grading.

M142D. Understanding Public Issue Life Cycle. (4) (Same as Public Policy M127.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended preparation: courses 10, 40, and one course from Economics 1, 2, 5, 11, or 101. Examination of how public issue life cycle is shaped by (1) economic system, (2) relations of various actors in business, news media, mass public, organized interest groups, Congress, the president, regulatory agencies, and courts and (2) ideology, cognitive biases, and ethical reasoning. P/NP or letter grading.


143B. Metropolitan Governance. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of how po- litical, social, economic, and cultural factors influence metropolitan governance of state and local cities and suburban areas. Study of some major issues in metropolitan governance through classic and con- temporary readings on political power, political economy of cities, and racial/ethnic segregation, as well as political incorporation and racial/ethnic co- alitions. P/NP or letter grading.

143C. Politics of American Suburbanization. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of how polit- ical, social, economic, and cultural factors influence metropolitan governance of state and local cities and suburban areas. Study of some major issues in metropolitan governance through classic and con- temporary readings on political power, political economy of cities, and racial/ethnic segregation, as well as political incorporation and racial/ethnic co- alitions. P/NP or letter grading.

143D. Electoral Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of political, social, and economic evolution of American suburbs, particularly in post-WWII era. Dominant themes focus primarily on historical pat- terns and implications of ethnic inclusion and exclusion; class conflict and gender roles; classic and contemporary theories of metropolitan govern- ance; and civic/political implications of American suburbanization. Studies include housing, schooling, and taxes; immigrant and ethnic minority suburbanization; suburban sprawl and uneven growth; suburban decline; and regionalism. P/NP or letter grading.

145A-145E. Public Law and Judicial Process. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Study of character and formation of political attitudes and public opinion. Role of public opinion in elections, relationship of political attitudes to the vote decision, and influence of public opinion on public policy formulation. P/NP or letter grading.

145A. Anglo-American Legal System. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Evolution of English common law courts and their legal system, with emphasis on develop- ment of basic concepts of law which were re- ceived from that system in U.S. and remain relevant today. P/NP or letter grading.


145C. Constitutional Law—Civil Liberties. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Protection of civil and political rights and liberties under constitution. P/NP or letter grading.

145D. Judicial Oversight of Bureaucracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Legal controls of administrative action. Substantive and procedural limits on administrative discretion imposed by legislation, executive and judi- cial agencies, and sources of legal powers of admin- istrative bodies within these limits. P/NP or letter grading.

145F. Constitutional Law—Rights of Accused. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Constitutional rights of persons sus- pected, accused, and convicted of crimes, with atten- tion to how protections have changed through history. P/NP or letter grading.

146B-146D-146E. Organization Theory, Public Policy, and Administration. (4–4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.


146D. Theories of Organization and Decision Making. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of theoretical frame- works for studying public and private bureaucracies, with emphasis on ideas, values, behavioral pat- terns, and concepts of organization. P/NP or letter grading.

146E. National Policy Development and Implementa- tion. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. De- signed for juniors/seniors. Investigation of complex process of policy development and implementation in U.S., including roles of federal, state, and local agen- cies as well as private organizations. Subsections of- fered on particular policy areas, with topics an- nounced in preceding term. P/NP or letter grading.

147A-147B-147C. American Political Develop- ment. (4–4–4) Lecture, three or four hours; discuss- ion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

147A. Overview. (4) Lecture, three or four hours; dis- cussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Introduction to historical development of American politics and ideas and institutions that drive durable change over time. Examination of theoretical analytic- tools at center of developmental inquiry. P/NP or letter grading.


147C. National Institutions Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of one American political institution and its development over time, or interaction of American politics and some aspect of culture and society. As- sessment of broader political environment of politics, isolating points of contact, conflict, and pressure for change. Possible topics include party development, Constitution, business regulation, and politics and re- ligion. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

148A. Special Topics in American Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: course 40, two courses in Field III. Designed for juniors/seniors. In-depth examination of specific prob- lems appropriate to American politics. Sections of- fered on regular basis, with topics announced in pre- ceding term. May be repeated for credit with topic change. P/NP or letter grading.

Also see course 117

Field IV: Comparative Politics

150. Political Violence. (4) Lecture, three or four hours; discussion, one hour (when scheduled). De- signed for juniors/seniors. Nature of political violence in several different uses of violence in revolutionary pro- cess: demonstrations, mass uprisings, coup d’état, assassination, and terrorism. P/NP or 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.

152. Special Topics in African Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consent of instructor required.

153A. Comparative Government and Politics of Western Europe: West European Government and Politics. Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for juniors/seniors. Comparative study of contemporary European political systems, with special attention to the impact of European integration, interaction of political and economic development, and conflict and conflict resolution. Letter grading.

153B. Colonialism, Discourse, and Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Transformation of language used to talk or write about politics during era of European colonialism and its potential influence on political change. Theories of democracy, colonialism, and postcolonial politics. 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.

155A. Government and Politics of Post-Communist States: Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of post-totalitarianism. Letter grading.

156. Government and Politics in the Middle East. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of the political systems of the Arab States, Turkey, Israel, and Iran. P/NP or letter grading.

158. Southeast Asian Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for juniors/seniors. Survey of political environment 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. Consent of instructor required.

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 foundations 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. Survey of China’s political and ideological transformation in post-Mao era. Assessment of changing socioeconomic conditions on revolutionary policies and programs of Chinese Communist Party. Exploration of etiology of 1989 Tiananmen crisis and consequences for China’s collapse of Communism in East Europe and the Soviet Union.

160. Government and Politics of Japan. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for juniors/seniors. Structure and operation of contemporary Japanese political system, with special attention to domestic and international factors. P/NP or letter grading.

163A. Discourse before Democracy. (4) Formerly numbered 163.) Lecture, three or four hours; discussion, one hour (when scheduled). Regularities in language used to talk or write about politics across different levels of economic development. Prerequisite: course 50 and one course in Field IV. Designed for juniors/seniors. May be applied toward either Field IV or V. Letter grading.

163B. Colonialism, Discourse, and Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced requisite: course 30. Designed for juniors/seniors in Field IV. Requisite: two courses in Field IV. Designed for juniors/seniors. Intensive examination of one or more special problems of political economy. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

169. Special Studies in Comparative Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: one course in Field IV or V. Designed for juniors/seniors. May be repeated for credit with topic change. P/NP or letter grading.

Field V: Methods and Models

170A. Studies in Statistical Analysis of Political Data. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Statistical methods to interpret data and test theories from various fields in political science and use of quantitative evidence in construction of convincing and truthful arguments related to world of politics. Consent of instructor required. Letter grading.

171A. Applied Formal Methods of Collective Action and Social Movements. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. How do economic problems, with special attention to political problems, affect economic strategy in recent times. Letter grading.
Field VI: Race and Ethnic Politics

M180A. African American Political Thought. (4) (Same as African American Studies M114C and Labor and Workplace Studies M114C.) Lecture, three or four hours; discussion. Designed as introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been applied and interpreted by African Americans. Debates and conflicts in black political thought, historical context of African American social movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

181A. Politics of Latino Communities. (4) Formerly numbered 181B.) Lecture, three or four 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; national 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 Latinos voting in recent presidential elections. P/NP or letter grading.

M182. Ethnic Politics: African American Politics. (4) (Same as African American Studies M114.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed to provide an in-depth examination of the role of African Americans as a political group. Topics include access to political decision-making, political participation, and the influence of African American politics on national politics. P/NP or letter grading.

M184A. Black Experience in Latin America and Caribbean I. (4) (Same as African American Studies M154C.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed to provide an in-depth examination of the role of African Americans in Latin America, with emphasis on their contributions to the development of Latin American societies and cultures. 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 to provide an in-depth examination of the role of African Americans in Latin America, with emphasis on their contributions to the development of Latin American societies and cultures. P/NP or letter grading.

186. Special Studies in Race, Ethnicity, and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 40. Directed for junior and seniors. Intensive examination of one or more special problems related to race, ethnicity, and politics in political science. Selections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

Special Studies

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 to a maximum of 8 units. Honors content noted on transcript. P/NP or letter grading.

169HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Contract to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit 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 writing departmental honors theses in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

190H. Honors Research Colloquia in Political Science. (1) Seminar, one hour. Designed to bring together students writing departmental honors theses in seminar setting with one or more faculty members to discuss their thesis work in progress. Led by one supervising faculty member. P/NP grading.

191A-191F. Variable Topics Research Seminars for Majors, (4 each) Formally numbered 189.) Tutorial, four hours. May be repeated for credit with different research topics. May be applied toward honors credit for eligible students. May be taken with permission of instructor. P/NP grading.

191H. Research Design Seminar for Honors Thesis. (4) Seminar, three hours. Preparation: one course in research methods of current or continuing interest. May be repeated for credit with different research topics. May be taken with permission of instructor. Letter grading.

193. Journal Club Seminars: Political Science. (1) Seminar, four hours. May be repeated for credit with different research topics. Reading, discussion, and development of culminating research paper. Class sessions emphasize critical and constructive analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

194. Research Group Seminars: Political Science. (2) Seminar, three hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of research of faculty members or students. May be repeated for credit. P/NP grading.

194DC. CAPPمام Washington, DC, Research Seminars. (4) (Same as History M194DC and Sociology M194DC.) Seminar, three hours. Limited to CAPP Program students. 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.

195CE. Community and Corporate Internships in Political Science. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignment and biweekly meeting with 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, CAPPمام Washington, DC, Internships, (4) (Same as History M195DC and Sociology M195DC.) Tutorial, four hours. Limited to junior/senior CAPP Program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NP grading.

198. Honors Research in Political Science. (1 to 4) Tutorial, two hours. Preparation: course 191H. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Political Science. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervision of individual research project under guidance of faculty mentor. Capping paper or project required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

Formal Theory and Quantitative Methods

200A. Probability and Inference for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. 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. Preparation: course 200A. Prior exposure to coding in R. Introduction to research design and regression analysis. Basic tools of statistical inference and application to practice of regression analysis. Emphasis on relationship of these statistical tools for drawing tentative inferences 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 statistical programming language R. S/U or letter grading.

200C. Causal Inference for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. Requisites: courses 200A, 200B. Preparation: familiarity of basic probability theory and statistical methods, linear regression. Clarification of conditions under which estimates made using non-experimental data can be given. Strategies for accessing and maximizing credibility of causal claims made from non-experimental evidence. Designs and methods, including experiments, matching, regression, panel 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. Multivariate calculus, basic linear algebra, three hours; discussion, one hour; field work, eight hours. Requisite: course 200A. Continuing survey of microeconomic techniques and applications to 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.

204A. Game Theory in Politics I. (4) Seminar, three hours. Survey of game theory, with emphasis on utilizing mathematical models to understand political and economic phenomena. Applications concern political participation, public goods, legislatures, institutional regulation, bureaucracies, interest groups, and party competition. Designed to help students become informed consumers of game-theoretical literature in political science. S/U or letter grading.

204B. Game Theory in Politics II. (4) Seminar, three hours; fieldwork, eight hours. Requisite: course 204A. Intermediate-level topics include games of incomplete information, cheap talk games, and bargaining theory. Applications concern political participation, public goods, legislatures, bureaucracies, conflict, and cooperation. Designed to help students use game theory in their research. S/U or letter grading.

204C. Game Theory in Politics III. (4) Seminar, three hours; 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 bureaucratic conflict mediation and political transitions. Designed to help students use advanced game theory in their research. S/U or letter grading.

206B. Topics in Applied Game Theory. (4) Same as Economics M215.) Lecture, three hours. Preparation: calculus or introductory probability. Designed for graduate economics and political science students. Survey and applications of major solution concepts to models of bargaining, oligopoly, cost allocation, and voting power. S/U or letter grading.

208D. Multivariate Analysis with Latent Variables. (4) Same as Psychology M257 and Statistics M242.) Lecture, three hours. Introduction to models analyzing latent variables, which are 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, including path and simultaneous equation models. Parameter estimation, hypothesis testing, and other statistical issues. Computer implementation, Applications. S/U or letter grading.

210A. Advanced Econometrics. (4) Same as Economics M232.) Lecture, three hours. Preparation: regression, 210B. Subjective probability, introduction to decision theory, Bayesian analysis of regression, sensitivity analysis, simplification of models, criticism. May be repeated for credit. S/U or letter grading.

208E. Bayesian Econometrics. (4) Same as Economics M232.) Lecture, three hours. Requisites: courses 210A, 210B. Subjective probability, introduction to decision theory. Bayesian analysis of regression, sensitivity analysis, simplification of models, criticism. May be repeated for credit. S/U or letter grading.

221. 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. (4) Lecture, three hours; field work, eight hours. S/U or letter grading.

Political Science / 631

210A. Introduction to Political Science. (4) Discussion, three hours. Preparation: knowledge of elementary calculus. Introduction to techniques of economic analysis and survey of major topics in formal political economy. Investigation of models of regulation, trade protection, collective-choice processes. Axomatic method applied to politics and political economy, concept of rationality, and agenda control, choice-set or solution concepts.


210B. Economic Theory and Methods for Political Science II. (4) Discussion, three hours. Requisite: course 200A. Continuing survey of microeconomic techniques and applications to 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.


210B. Economic Theory and Methods for Political Science II. (4) Discussion, three hours. Requisite: course 200A. Continuing survey of microeconomic techniques and applications to 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.

214. Political Theory in Transnational Context. (4) Seminar, three hours; discussion, one hour (when scheduled). Critical analysis of selected text from postcolonial, spatial, feminist, postmodern, and post-structuralist theories that assess impact of processes of globalization on such concepts and problems of traditional social and political theory as sovereignty, citizenship, rights, community, representation, and democracy. S/U or letter grading.

215. Liberalism and Its Critics. (4) Seminar, three hours; discussion, one hour (when scheduled). Examination of works of one or more major contemporary liberal theorists (Rawls, Dworkin, Habermas, Nussbaum). In light of this, we have been asked to propose to the liberal position (communitarianism, post-structuralism, group rights theories, etc.). S/U or letter grading.

216. Toleration, Pluralism, and Diversity. (4) Same as Public Policy M248.) Seminar, three hours. Prior experience in political or legal theory helpful. Exploration of both abstract concepts of toleration and contemporary disputes. S/U or letter grading.


International Relations

220A. International Relations Core Seminar I. (4) Seminar, three hours. Requisites: courses 120A, 220A, 220B. Political science and policy science approaches to national foreign policy process, with primary focus on formulation and implementation of American foreign policy. S/U or 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 strategy theorist's viewpoint of the other person's choice by affecting his expectations of how we will behave. Discussion of theories of deterrence, coercive diplomacy, crisis management, war termination, and negotiation. Use of various theoretical approaches to explaining strategic interaction, including psychology, bargaining theory, and game theory.


225. American Foreign Policy. (4) Discussion, three hours. Discussion of approaches used to explain foreign policy-making at individual, small group, bureaucratic, and political 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 economics 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 conflict and cooperation, with emphasis on applications in international political economy and comparative politics.

233A-233B-233C. Political Economy Workshops (4–4–4). Discussion, two hours. Preparation: successful completion of major field examinations. Workshops for students writing or preparing to write dissertations. Reading and discussion of research in progress presented by UCLA faculty, visiting scholars, and advanced graduate students. Research paper of publishable length and quality required. S/U or letter grading.

234A-234B-234C. Workshops: National Security, Foreign Policy, and International Relations (0–0–12). Discussion, two hours. Preparation: successful completion of major field examinations. Course 234A is requisite to 234B, which is requisite to 234C. 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. 240A. Survey of ideas and approaches that have been historically important in field of comparative politics, with selection of theories and methodologies that have comprised field over time. 240B. Survey of contemporary research approaches and problems in field of comparative politics, with a range of theories and methodologies used by practitioners in the field.


244. Latin American Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Latin American politics. S/U or letter grading.

245. Middle Eastern Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Middle Eastern politics. S/U or letter grading.

246A. Western European Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Western European politics. S/U or letter grading.

246B. Political Development of Modern Europe. (4) Seminar, three hours; discussion, one hour (when scheduled). Principal phases of political development from high feudalism to the present, together with theories of causation.


247A. Evolution of Soviet and Russian Politics. (4) Seminar, three hours; discussion, one hour (when scheduled). Discussion seminar surveying political evolution of Soviet Union and its transformation.

247B. Domestic Context of Russian Foreign Policy. (4) Seminar, two hours. Examination of domestic social, political, bureaucratic, and organizational sources of Russian foreign and strategic policy. S/U or letter grading.


250. 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.

253. Political Change in Communist Systems. (4) Discussion, three hours. Examination of political context and consequences of structural reform in Communist systems; theories of post-Leninist political pluralization and convergence.

254A-254B. Institutions and Comparative Politics. (4–4) Seminar, three hours; discussion, one hour (when scheduled).

254A. Comparative Institutional Analysis. (4) Seminar, three hours; discussion, one hour (when scheduled). Use of advances of rational choice theory and new institutionalism to compare and analyze major institutional structures, including presidentialism vs. parliamentarism, unicameralism vs. bicameralism, two-party vs. multiparty systems, cadre vs. mass parties, and plurality vs. proportional electoral systems.

254B. Political Institutions, Delegation, and Policy-Making. (4) Seminar, three hours; discussion, one hour (when scheduled). Analysis of political foundations of policy-making. Characterization of democratic institutions as a series of delegations, from voters to elected officials, within parties and legislatures, and from elected politicians to unelected bureaucrats. Examination of implications of different institutional designs for how those delegations are made and controlled.

255. Seminar: Political Economy of Developing Countries. (4) Seminar, three hours. Interdisciplinary seminar directed toward comparative analysis of political development and modernization. S/U or letter grading.

256. External Sources of Domestic Politics. (4) Discussion, three hours. Theoretical and historical studies of impact of war and trade on domestic cleavages, policy, and institutions. S/U or letter grading.

257. Labor and Working-Class Politics. (4) Discussion, three hours. Questions and topics on comparative labor and working-class politics. S/U or letter grading.


259. Selected Topics in Comparative Politics. (4) Discussion, three hours. Critical examination of major problems in comparative politics. S/U or letter grading.

American Politics


261A. Proseminar: Political Psychology. (4) (Same as History M236A and Psychology M228A.) Seminar, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.

261B. Mass Attitudes and Political Behavior. (4) Seminar, three hours. Requisite: course 141B or 260A. Analysis of development and change of political attitudes in mass publics and their relationship to voting, protest, and violence. S/U or letter grading.

261C. Political Communication. (4) Discussion, three hours. 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. Requisite: 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.


266. Group Theories of Politics. (4) Discussion, three hours. Critical appraisal of “group theory” approaches to study of political decision making, with special attention to empirical research problems and findings. S/U or letter grading.


268B. Electoral Democracy: Theory and Behavior. (4) (Same as Public Policy M246.) Seminar, three hours. Examination of both empirical and normative questions 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; representation; parties; and purpose of democracy as whole—through both classic political theory treatments and modern research in American political behavior. Letter grading.


270. Legislative Behavior. (4) Seminar, three hours. Analysis of normative approaches to study of representatives, with special emphasis on assumptions, concepts, methods, and theoretical implications associated with each approach. S/U or letter grading.

271. Executive Politics and Presidency. (4) Seminar, three hours. Analysis of executive organization and leadership, with emphasis on American Presidency. Special attention to organizational theory, personality and the relationships between executive and other institutions and groups. S/U or letter grading.


Race, Ethnicity, and Politics

280A. Race and Ethnic Politics Field Seminar 1. (4) Seminar, field work, eight hours. Thematic methods, and development of paradigms in study of race and ethnic politics. S/U or letter grading.

280B. Research Methods in Race-Ethnicity Politics. (4) Seminar, three hours; field work, eight hours. Second course in race-ethnicity politics field seminar sequence. Review, discussion, debate, and discussion of different research methods that are used in race-ethnicity politics scholarship and advantages and disadvantages of different approaches and methodologies. S/U or letter grading.

282A. Approaches to Study of Race, Ethnicity, and Politics. (4) Seminar, four hours. Examination 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 issues of opportunity 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, politics, and inequality. Vast economic transformations, brought about through globalization of marketplace 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 (M287A) and letter grading (M287B) grading.

289A. Approaches to Study of Race, Ethnicity, and Politics. (4) Seminar, three hours. Analysis of alternative theoretical, methodological, and empirical approaches to study of race, ethnicity, and politics. S/U or letter grading.

289B. Current Research on Race, Ethnicity, and Politics. (4) Seminar, three hours. Exploration of current research on race, ethnicity, and politics. S/U or letter grading.

Special Studies

290. Modern Political Economy. (4) Discussion, three hours. Discussion of implications for understanding politics of thinking of politicians, bureaucrats, pressure groups, corporations, and nations as utility maximizers. Topics include microfoundations for macromodels, forms of political participation, state, government regulation, growth of government, bureaucracy, elections, public policy, inflation, S/U or letter grading.

292A. Introduction to Political Inquiry: Problems of Scientific Inquiry and Normative Discourse. (2) Seminar, two hours; discussion, one hour (when scheduled). Credit or no credit. May be repeated for credit. S/U grading.

292B. Introduction to Political Inquiry: Research Design. (4) Seminar, three hours; discussion, one hour (when scheduled). Design of qualitative and quantitative empirical research projects. S/U or letter grading.

293. Great Ideas in Social Sciences. (2) Seminar, two hours. Vehicle for faculty and visitors to teach research seminars of variable length. Special training opportunities on advanced quantitative methods, in- cluding complexity theory, agent-based modeling, ex- perimental economics, social cognitive neuroscience, and evolutionary psychology, to be offered at irregular intervals. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation; apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Political Science. (4) Seminar, to be arranged. Seminar in teaching techniques, including evaluation of each student’s own performance as a teaching assistant. Normally to be taken by all new teaching assistants in first term of their assistantships. May be taken only in term in which students are teaching assistants. May not be applied toward MA or PhD course requirements. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (2 to 4) Tutorial, to be arranged. May be applied only three times toward minimum course requirement in first two years. May be repeated. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.

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 David Crawford, 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.

99. Applied Positive Neuroscience: Skills for Improving Productivity and Wellbeing. (5) Lecture, three hours; discussion, one hour. Not open to students with credit for Community Health Sciences 179. Introduces personal, and extrapersonal contributions to well-being, and how activity and chemistry of key brain regions contribute to each, 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 to apply it to their own lives. Through neuroscientific context, introduction to multidisciplinary perspectives on variety of topics that are widely considered significant maturational tasks for young adults, including emotion regulation, managing social relationships, enhancing productivity, and identity development. Letter grading.

Upper-Division Courses

174. Brain and Behavioral Health: Childhood and Adolescence. (4) Seminar, two and one hour hours. Limited to junior/senior psychology or neuroscience majors. Integration of problem-based learning approach to teach foundational information about application of brain science and behavioral science understanding and promotion of child and adolescent mental health. Exploration of integration of developmental psychopathology, applied research treatment, and public policy to identify and dismantle barriers to problems. Focus on set of key topics (e.g., autism, mood disorders, anxiety disorders, and substance use disorders) during childhood and adolescence. Research of childhood and adolescent mental health and public policy literature. Guest facilitators and expertise complement study of emerging treatment advances, applications, and barriers. Letter grading.

175. Mindfulness Practice and Theory. (4) Seminar, five hours. Designed for beginners; 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, 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.

M180. Contemporary Problems in Developmental Disabilities. (4) (Same as Psychology M180.) Seminar, three hours. Corequisite: course M181A. Limited to Developmental Disabilities Program students. Examination of broad spectrum of issues related to mental retardation, intelligence and IQ, genetics, neuropsychology, and other developmental disabilities. P/NP or letter grading.

M181. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181, Neuroscience M130, Physiological Science M181, and Psychology M117J.) Lecture, three hours. Requisite: Neuroscience M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180A or Psychology M117A) or Physiological Science 111A or Psychology 115. Underlying brain systems involved in psychiatric symptoms and neurological 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.

M181A. Research in Contemporary Problems in Developmental Disabilities. (4) (Same as Psychology M181A.) Lecture, one hour; laboratory, eight hours. Corequisite: course M180. Limited to Developmental Disabilities Program students. Research experience. In Progress grading (credit to be given only on completion of course M181B).


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 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 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.
197. Individual Studies in Psychiatry. (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 to be taken for credit once only. May be repeated for credit. Individual contract required. Additional information and contract forms are available in Office of Education, 38–216 Semidor. S/U 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 M249Q.) Seminar, two hours. Designed for postdoctoral fellows and advanced PhD students. Participation in peer review process of the Journal of 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 publication. May be repeated for credit.


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.

M232. Social and Cultural Contexts. (4) Same as Biostatistics M235.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 200C, 202B, or equivalent. Theoretical and methodological issues related to primary affective disorders (depression, manic depressive illness), including diagnosis, phenomenology, epidemiology, psychology, phenomenology, biology, and treatment. Students enrolled for 4 units are assigned a more intensive reading list and required to make a presentation or prepare a research paper.


237. Seminar: Behavioral Neuroimmunology. (1) Seminar, one hour per month; discussion, thirty minutes per month. Series of lectures presented the second Wednesday of each month throughout academic year by invited speakers. S/U grading.

M238. Survey Research Techniques in Psychocultural Studies. (4) Same as Psychology M238.) Seminar, three hours. Designed for graduate students. Techniques for conceptualizing, conducting, and analyzing survey data; instruction in qualitative strategies for enhancing survey research on psychocultural problems.

M240. Assessment and Treatment of African American Families. (3) Same as African American Studies M240.) Seminar, two hours. Designed for graduate students. Course aids mental health professionals and trainers 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 of African American children and families. Letter grading.

M243A–243B–243C. Mental Retardation and Chronic Medical Illness Interdisciplinary Core Curriculum. (1–1–1) Lecture, ninety minutes. Survey seminar 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 services. Presented in interdisciplinary format to provide information independent of discipline. S/U grading.


253. Seminar: Child Development. (1) Theories of development, systems of child development, and chronological aspects of child development. Presentation of thoughtful readings by students plays major role in each session.


259. Legal and Ethical Issues with Vulnerable Populations. (3) Lecture, ninety minutes; laboratory, three and one half hours. Discussion of current laws dealing with vulnerable populations (e.g., children, developmentally disabled people, elderly people); philosophies, ethics, issues, interactions, and how to analyze and guide them. Use of videotapes and discussion of cases.


M263. Clinical Pharmacology. (2) Same as Biostatistics M263 and Medicine M263.) Lecture, two hours. Preparation; completion of professional health sciences course (Medicine M263, or Psychology M278, or Psychology M288A-M288B.) Lecture, three hours. Presentation of brief in-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, exploration of functional imaging paradigms, and how to interpret results. Lab-

M270. Neural Basis of Memory. (4) Same as Neuro- science M273.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurological data integrated into models for how behavioral phenomena of memory are produced in the brain. Discussion of how memory is encoded in declarative memory, cortical conditioning, hippocampus and declarative memory, and frontal lobes and primary memory.

M272. Psychological Anthropology. (4) Same as Anthropology M250.) 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 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.


275. Psychoneuroimmunology Research Seminar. (1) Seminar, one hour. Topics to be centered around current directions in psychoneuroimmunology (PNI), including social genomics, immunology, and biological aging. Common molecular and immunological protocols used in PNI and current directions in PNI research, with emphasis on basic immunology and immunological/molecular biology and role of behavioral and psychological factors on immune and cell-aging processes. S/U grading.


281A–281B–281C. Behavioral Therapy in Educational Settings. (4–4–4) Lecture, one hour; laboratory, seven hours. Supervised experience in classroom working with exceptional children in conducting systematic observations, formal assessments, and carrying out individualized educational and behavioral programs. Theoretical background furnished through one-hour weekly lecture. S/U or letter grading.


M285. Functional Neuromaging: Techniques and Applications. (3) Same as Bioengineering M284, Neuroscience M285, Physics and Biology in Medicine M285, and Psychology M278L.) Lecture, three hours. In-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, exploration of functional imaging paradigms, and how to interpret 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 MRE experiment. S/U or letter grading.

287. Small Group Cognitive/Behavioral Interventions. (4) Lecture, three hours. Preparation: completion of integrative course in integral calculus, electricity and magnetism, computer programming (any language), general statistics. Requisite: course 292. Course M284A is requisite to M284B. Instrumental imaging methods and their applications, with emphasis on quantitative understanding and data interpretation and features common to modalities. X-ray computed tomography, magnetic reso- nance imaging, positron emission tomography, magnetoencephalography, transcranial magnetic stimulation, near infrared imaging. Letter grading.

M288. Functional Neuromaging: Techniques and Applications. (3) Same as Bioengineering M284, Neuroscience M285, Physics and Biology in Medicine M285, and Psychology M278L.) Lecture, three hours. In-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, exploration of functional imaging paradigms, and how to interpret 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 MRE experiment. S/U or letter grading.

287. Small Group Cognitive/Behavioral Interventions. (4) Lecture, three hours. Preparation: completion of integrative course in integral calculus, electricity and magnetism, computer programming (any language), general statistics. Requisite: course 292. Course M284A is requisite to M284B. Instrumental imaging methods and their applications, with emphasis on quantitative understanding and data interpretation and features common to modalities. X-ray computed tomography, magnetic reso- nance imaging, positron emission tomography, magnetoencephalography, transcranial magnetic stimulation, near infrared imaging. Letter grading.

290. Los Angeles HIV-Community Colloquium. (1) Lecture, two hours. Examination of emerging scientific HIV-related research. Discussion of policy issues, therapies, and culturally-related services and programs and shifting epidemiology of the virus and disease. S/U grading.


293. Professional Development: Presentations and Preparation 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 a variety of venues, and preparing research and/or teaching statements for job applications. S/U grading.

294. Essentials of Clinical Investigation. (2) Lecture, two hours. Preparation: two hours. Designed for graduate students. Introduction to initial steps in clinical research through preparation of research proposal. Small working groups develop grant proposal on specific topic. S/U grading.


295A. (2) Seminar, two hours; discussion, one hour. Neurobiology and psychopharmacology of drug abuse, as well as epidemiology and prevention. Discussion of pros and cons of various treatment modalities for drug dependence. S/U grading.

295B. (2) Seminar, two hours; discussion, one hour. Drug use patterns and treatment issues in specific populations such as women, adolescents, homeless, multiply diagnosed, as well as different ethnic populations. Exploration of relationship between drug abuse, sexuality, and gender. S/U grading.

295C. (2) Seminar, two hours; discussion, one hour. Theoretical perspectives on drug use and abuse as well as policy and ethical aspects of drug abuse research. Research design and analysis issues pertinent to drug abuse research. S/U grading.

296. Research Group Seminar: Practicum. (2) Research group meeting, three hours. Designed for graduate students who plan to conduct research studies. Coverage of (1) publishing process—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) grant application structure and mission, grant application process, funding mechanisms, and review process, (3) preparing/writing grants for submission to NIH, including review of components of an application, criteria by which applications are judged, and what to emphasize in each section, (4) grant mechanisms specifically designed for new investigators, (5) human subjects section for high-risk populations. Letter and IRB issues, and preparation of budgets (modular and detailed) and budget justification for NIH submissions. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and direction of a faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

402. Journal Club. (1) Seminar, two hours; outside study, two hours. Preparation of participants’ current research. Critical review of recent articles on drug abuse. Training sessions included in areas in which fellows believe they have a recognized need. S/U grading.

403. Individual Case Supervision. (1 to 4) Preparation: submission of written proposal to be structured by instructor and student prior to enrollment; additional institutional approval available in Office of Education, 38-216 Semel Institute. One-to-one supervision of individual therapy cases, including analyses of patient data, supervision of ongoing treatment, information to patients on psychotherapy, and applications to patient management. S/U or letter grading.

405. Trauma and Sexual Abuse Research Seminar. (4) Seminar, three hours; discussion, one hour. Designed for graduate and medical students and residents. Physicians interested in learning about biobehavioral trauma research. Introduction to DSM-IV TR diagnostic criteria for posttraumatic stress disorder (PTSD), and re-assessing PTSD as a normal response in context of physiological markers for PTSD. Review of current modes of treatment, including therapeutic and pharmacological interventions. Discussion of research methods, particularly important for trauma research. S/U or letter grading.

407A–407B–407C. Clinical Hypnosis Seminars. (2–2–2) Seminar, two hours. Integrated, experientially oriented sequence with lecture, discussion, demonstration, practice, and assigned readings. Guest speakers with expertise in specific hypnotic applications and populations, and video programs included. Trainees and faculty members in graduate and professional programs as well as licensed healthcare providers from community (MCEP credit available) encouraged to enroll. For trainees in social work, psychology, and psychiatry, completion of minimum of one year of supervised training in psychotherapy or behavior therapy required. S/U grading. 407A. Cultural and historical context for hypnosis; development of technical competencies in trance induction, deepening, management, and re-alerting; and gaining familiarity with trance experiences. 407B. Fundamentals of trance utilization, including diagnosis, creating safety, and facilitating therapeutic change. 407C. Application of hypnotic interventions in specific clinical situations and with specific populations.


M425. Clinic (1). Clinic, two hours. Preparation: two hours. Lecture, one hour. Exposure to range of professional development skills essential to academic career development. Hands-on skills and practice in preparing and delivering presentations in a variety of venues, and preparing research and/or teaching statements for job applications. S/U grading.

M426. 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) grant application structure and mission, grant application process, funding mechanisms, and review process, (3) preparing/writing grants for submission to NIH, including review of components of an application, criteria by which applications are judged, and what to emphasize in each section, (4) grant mechanisms specifically designed for new investigators, (5) human subjects section for high-risk populations. Letter and IRB issues, and preparation of budgets (modular and detailed) and budget justification for NIH submissions. S/U or letter grading.

596P. Individual Studies in Psychiatry. (2 to 12) Seminar, to be arranged. Preparation: submission of written proposal 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.

**PSYCHOLOGY**

College of Letters and Science

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**Psychology**

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Gregory A. Miller, PhD, Chair
Barbara Knowlton, PhD, Vice Chair, Undergraduate Programs
Anna S. Lau, PhD, Vice Chair, Graduate Programs
Jadine E. Bower, PhD, Vice Chair, Academic Facilities
Michelle G. Craske, PhD, Vice Chair, Academic Personnel

**Professors**

Howard S. Adelman, PhD
Robert F. Asarnow, PhD, in Residence (Della Martin Professor of Psychiatry)
Carrie E. Bearden, PhD, in Residence (Jeanne and Gary Reynolds Family Endowed Professor)
Peter M. Bentler, PhD
Robert M. Bilder, PhD, in Residence (Michael E. Tennenbaum Family Endowed Professor of Creativity Research)
Elizabeth L. Bjork, PhD
Janet Blacher, PhD
Hugh T. Blair, PhD
Aaron P. Blaisdell, PhD
Susann K. Bookheimer, PhD, in Residence (Joaquim M. Fuster Professor of Cognitive Neuroscience)
Julienne E. Bower, PhD (George F. Solomon Professor of Psychobiology)
Thomas N. Bradbury, PhD
Dean V. Buonomano, PhD
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Bertram H. Raven, PhD
Tara K. Scanlan, 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. Weisz, PhD
Nancy J. Wootf, PhD
Erin Zaidel, PhD

**Associate Professors**

James W. Bisley, PhD
Denise A. Blumenthal, PhD
Adriana Galván, PhD (Wendell Jeffrey and Bernice Wenzel Term Professor of Behavioral Neuroscience)
Noah J. Goldstein, MA, PhD
Avishek Adhikari, PhD
Tiffany N. Brannon, PhD
Jenessa R. Shapiro, PhD
Jenessa R. Shapiro, PhD
Martin M. Monti, PhD
Theodore F. Robles, PhD
Jennifer L. Schein, PhD
Jill A. Schulz, PhD
Kate M. Wassum, PhD

**Assistant Professors**

Avishek Adhikari, PhD
Tiffany N. Brannon, PhD
Han Du, PhD
Erica A. Cartmell, PhD
Reselinde H. Kaiser, PhD
Katherine H. Karlsgodt, PhD
Pamela J. Kennedy, PhD
Carolyn M. Parkinson, PhD
Gerardo Ramirez, PhD
Jesse A. Rissman, PhD
Jennifer A. Silbers, PhD
Nanthia A. Suthana, PhD, in Residence
Andrew M. Wikenheiser, PhD

**Adjunct Professors**

Iris Firstenberg, PhD
Karen B. Givvin, PhD
William E. Grisham, PhD
Dennis J. McGinty, PhD

**Adjunct Assistant Professors**

Danielle Keenan-Miller, PhD
Philip Sayegh, PhD
Yaida 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, 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.

A choice of three undergraduate majors is offered: a BA degree in Psychology and BS degrees in Cognitive Science and in Psychobiology. While the majors overlap in certain fundamental and basic knowledge bases, they differ considerably in their focus (i.e., the extent to which certain areas of psychology and related disciplines are studied) and in terms of the different student interests and needs they satisfy. For nonmajors, the department offers many courses that provide students with new and valuable insights into the understanding of human behavior, including their own.

At the graduate level, the department offers training leading to the PhD degree with emphases in the areas of behavioral neuroscience, clinical, cognitive, cognitive neuroscience, 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 pro-
duce a paper based on each term of their experience in a research laboratory or approved fieldwork setting. 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 experience 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 findings 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

Psychology 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 Psychological Science 3; Chemistry and Biochemistry 2 or 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 M117A, M117B, and M117C), 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

**Cognitive Science 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 two courses from 10B, 10C, 15, 16, 20A, 30, 40A, 60; Psychology 20A, 20B; and Psychology 10, 85, 100A, 100B. Students cannot take Psychology 100A 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, 133B, 133E, 135, 137G, 142H, 160, 161, M166, 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, 136A, M150, Communication 118, 119, 126, M127, 129, Computer Science 111 through CM186, Linguistics 103 through 185B, Mathematics 110A through 171, Music Industry M103, Neuroscience 102, M145, C177, 180, 181, 182, Philosophy 124 through 137, Statistics 100A, 100B, 100C, 101B, 101C; and (4) in the junior or senior year of the two capstone terms of Psychology 195B or 196B (may be fulfilled by taking any two courses from 195B or 196B or 196B/194C, provided content is approved by the Undergraduate Advising Office).

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and two upper-division cognitive science electives. All three courses must be completed to receive cognitive science elective credit.

Students must have a 2.0 grade-point average in all upper-division courses selected to satisfy major requirements. With the exception of Psychology 195B and 196B, each course must be taken for a letter grade.

**Psychobiology BS**

The Psychobiology major is designed for students who plan to go on to postgraduate work in physiological psychology, neuroscience, behavioral aspects of biology, or the health sciences. Psychobiology is the study of behavior from a biological perspective. It includes neural, experimental psychological, natural history, genetic, comparative/evolutionary, and developmental approaches to understanding human and animal behavior.

The requirements described below include sufficient preparation if students plan to pursue graduate work in any of the above fields; however, they may want to include additional advanced courses in 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 quantitative and phenomenological terms
- Demonstrated ability to choose and apply the appropriate quantitative analysis tools to a data set and meaningfully interpret the results of the analysis
- Demonstrated ability to read primary literature in the field and evaluate the validity of conclusions in light of the methodology and statistical analyses used as well as the logic of assertions presented
- Demonstrated ability to communicate the results of laboratory work orally or in writing with appropriate graphic depictions of the data
- Ability to relate work in literature in meaningful ways, explaining the motivation for the study and the interpretation of the results
- Demonstrated thorough knowledge of neuroanatomy, including lobes of the brain, major anatomical landmarks, cranial nerves, and major subcortical structures
- Demonstrated thorough knowledge of the sequence of events that results in an action
- Demonstrated thorough knowledge of sensory systems, including signal transmission, neuroanatomical connections, and response properties of neurons in primary cortical areas
- Ability to analyze the behavior of neurons in circuits and predict how other neurons in the circuit will react when other neurons are depolarized or hyperpolarized

**Psychobiology 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, 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. Also required are Psychology 10, 100A, 100B. Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B should be taken early in the career; these courses are open only to students who have declared the
Psychobiology premajor before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

Each of the preparation for the major courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B; C- or better in the remaining courses) with a 2.0 overall grade-point average. Student must complete all preparation for the major courses by the end of the summer quarter of their third year to be eligible to petition to declare the Psychobiology major.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

Transfer Students
Transfer applicants to the Psychobiology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 123, and 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, one semester of organic chemistry with laboratory, one introduction to psychology course, one psychological statistics course, and one psychology research methods course. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

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

The Major
After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

Required: (1) Ecology and Evolutionary Biology 100 or 129 or Psychology 118, and Psychology 110, 115 (or M117A, M117B, and M117C), 116 or Neuroscience 101L, 120A or 120B; (2) one course from Psychology 127A, 127B, 127C, 130, 133A through 133I, 135, 161; (3) 16 units of graded elective courses from the following list: Ecology and Evolutionary Biology 112, 113A, 114A (no more than one from this group), Psychology 111, 112A through 112D, M117A, M117B, M117C, M117J, 119A through M119X, 124K, 137G, 152, 160, 161, 162, 164, M166, 186D, 191CH (only if content is approved by the undergraduate vice chair), Chemistry and Biochemistry 153A, 153L, Computational and Systems Biology M187, Ecology and Evolutionary Biology 100, 102, 105, 106, 110, 111, 115, 117, C119A, 120, 121, 122, 124A (only 4 units may be applied toward the major), 129, C135, 164, 170, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics C185A, Molecular, Cell, and Developmental Biology 100, 104AL, 138, M140, CM156, Neuroscience 102, Physiological Science C144, 146, 147, 166, 173.

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and 10 units of upper-division psychobiology electives. All three courses must be completed to receive psychobiology elective credit.

Students must have a 2.0 grade-point average in all upper-division courses selected to satisfy major requirements, and each must be taken for a letter grade.

Honors
Honors Courses
Each year the department offers a selection of honors courses, designated with an H suffix. The courses provide close contact with faculty members, emphasize readings in the original literature, student reports, and small group discussions, and may include field or research experience. Contact the College of Letters and Science for information on requirements for College Honors.

Honors Program
Psychology, Cognitive Science, and Psychobiology majors intending to continue study at the graduate level are encouraged to apply for the departmental honors program. Students work for one year (fall through spring quarters) with a Psychology Department faculty sponsor on a research project that is the basis of a formal honors thesis. During that year they also participate in a weekly seminar (Psychology 191AH, 191BH, 191CH) in which thesis projects are presented and discussed and other topics of interest are explored with invited faculty members and other guests. Other requirements may apply. Contact the Undergraduate Advising Office during spring quarter for more information and application forms. Satisfactory completion of the program and the other requirements for the major leads to awarding of the degree with honors or highest honors.

Computing Specialization
Majors in Psychology, Psychobiology, and Cognitive Science may select a specialization in Computing by (1) satisfying all the requirements for a bachelor's degree in the specified major, (2) completing four courses from Program in Computing 10A, 10B, 10C, 15, 16, 20A, 30, 40A, 60, Psychology 20A, 20B, and (3) completing at least two courses from Psychology 85, 121, 142H, 186A through 186D (one 199 course may be substituted for one of these courses provided project has been approved by vice chair). A grade of C or better is required in each course. Students graduate with a bachelor's degree in their major and a specialization in Computing. Students planning to enter this specialization should contact the Undergraduate Advising Office.

Applied Developmental Psychology Minor
The Applied Developmental Psychology (ADP) minor is designed to (1) provide a coherent, challenging academic program focused on investigating, understanding, and supporting the development of young children and their families, (2) teach 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 minor is open to all enrolled UCLA students (including Cognitive Science, Psychobiology, and Psychology majors) who have an overall grade-point average of 2.0 or better and have applied and been accepted into the program. Qualified students are admitted into one of two annual cohorts (one beginning in fall, the other in spring) to complete three consecutive terms of specialized coursework alongside a hands-on teaching internship (86 hours per term) at one of several UCLA child care centers. For more information about applying to the minor, contact the ADP academic coordinator by e-mail or see the department website. For questions about additional course requirements for the minor, contact a counselor in the Undergraduate Advising Office, 310-825-2730.

Required Lower-Division Course (4 units): Psychology 10.

Required Upper-Division Courses (24 units): Psychology 134A (must be taken concurrently with course 134D), 134B (must be taken concurrently with course 134E), and four additional courses from Education 120, 121, 132, Psychology 127C, 129F, 130, 131, 132A, 132B, 133B through 133I, 134F, 134G, 134I, 161, 198A or 199B (content must be approved by the Undergraduate Advising Office), Sociology M114. 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, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Cognitive Science Minor
The Cognitive Science minor is designed to introduce students to cognitive science topics as addressed in a number of different disciplines, such as biology, computer science, engineering, linguistics, mathematics, philosophy, and psychology, while allowing them to pursue a more in-depth study of cognitive science topics within specific areas of their own choice.
The minor consists of two parts. In the first part students complete background courses and satisfy a computer programming experience requirement. In the second part they select courses from three clusters of upper-division courses that have been organized to reflect different aspects of cognitive science. Students take five courses from three clusters, with no more than three courses from any one cluster.

The minor is open to all enrolled UCLA students, other than Cognitive Science majors, who have an overall grade-point average of 2.0 or better. After completing two background courses, students must make an appointment with an adviser in the Psychology Undergraduate Advising Office by e-mail, or by phone at 310-825-2730, to declare the minor. The three background courses must be completed by the end of the summer quarter of the third year.

Required Courses (32 units): Psychology 85; one course from 15, 100B, Linguistics 1, or 20; and either Program in Computing 10A or Psychology 20A.

Students must complete five total courses from the following three clusters, with no more than three courses from any particular cluster:


No more than two courses may be applied toward both this minor and a student’s major.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Fieldwork and Research Opportunities

Many research and fieldwork opportunities are open to students who wish to expand their knowledge and broaden their background in the field of psychology. These experiences can be enriching and help bring undergraduate students closer to understanding the importance of research and internships, including their applications in the everyday world. At least one of the following courses is recommended for students planning postgraduate study: Psychology 99, 185, 192, 194A through C194D, 195A, 195B, 196A, 196B, 199A, or 199B. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward the undergraduate degree. Information about these courses and programs is available from the Undergraduate Advising Office.

Only one 4-unit 199 course may be taken per term, and only 16 units of course 199 may be applied toward the degree. Only one 199 course may be taken for a letter grade (additional 199 courses may be taken on a P/NP basis). If approved in advance by the Undergraduate Advising Office, 8 units of course 199 may be applied toward the Psychology 195B/196B requirement for the Cognitive Science major and 4 units of course 199B may be applied toward the elective course requirements for the Psychology major.

**Psychology Research Opportunity Programs**

The Psychology Research Opportunity Programs (PROPS) represent a vital effort to identify and mentor underrepresented minority and/or low-income students. The purpose of PROPS is to encourage such students to participate in research and pursue graduate studies leading to careers in academia. The recruitment and application process for PROPS takes place each fall quarter. Students selected to participate are awarded stipends for winter and spring quarters, during which time they do research under the mentorship of a psychology faculty member. In addition, students are required to attend weekly seminars covering 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 designed as a teaching and research facility for the department and is set up to accommodate both cross-sectional and longitudinal investigation of infants, toddlers, their families, and caregivers. In addition, the program provides an opportunity for undergraduate students in developmental psychology and other areas to acquire firsthand experience working with infants and toddlers on an individual basis or in a group setting. The program 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 is located at the Fernald Center at 320 Young Drive North and accommodates children from three months to three years old. Students in the Applied Developmental Psychology minor may complete their fieldwork at one of the Fernald program locations.

**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 comparative approach where applicable, 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. Prerequisite: 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. Stress, Adaptation, and Coping. Limited to freshmen. Psychological and physiological processes related to stress and strains of daily living and potential remedies for the diseases to stress. 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 depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Psychology. (4) Seminar, three hours. Lecture, one hour; course 10. Study of selected topics in psychology at introductory level; seminar format designed for freshmen/sophomores. 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 12 units (excluding course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A. Psychological Statistics. (4) Lecture, four hours. Requisites: course 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 junior/senior majors. Basic statistical procedures and their application to research and practice in various areas of psychology. Letter grading.

100B. Research Methods in Psychology. (6) 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.

101. General Psychology Laboratory. (4) Lecture, one hour; laboratory, four hours. Enforced requisites: courses 10 and 100A, with grades of C or better. General laboratory course for psychology students to acquire key concepts in psychology through active participation in enriched environment. Use of current technologies (e.g., Web-based teaching, interactive computer demonstrations) in challenging atmosphere to learn how mind works. Letter grading.


110. Fundamentals of Learning. (4) Lecture, three hours; discussion, two hours. Requisites: courses 100A, 100B, and 100D. Designed for junior/senior majors. Experimental findings on animal and human conditioning; retention and transfer of training; relation of learning and motivation, intended to provide empirical basis for theory and research in this area. P/NP or letter grading.

111. Learning Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses 100A, 100B, 110C. Designed for junior/senior majors. Laboratory experience with techniques in study of learning, especially with animals. Letter grading.

112A. Basic Processes of Motivated Behavior. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10 and 100C, for juniors/seniors. Examination of some basic processes underlying motivated behavior, stressing environmental determinants of behaviors such as feeding, drinking, and reproductive behaviors; discussion of physiological mechanisms that contribute to such behaviors. Consideration of topics such as reinforcement, acquisition, 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. Requisites: courses 100A, 110C. Recommended: course 115. Designed for juniors/senior. Presentation of biological and behavioral approaches to fear and anxiety, taken from laboratory and applied research. In addition to overview of major principles from each approach, emphasis on areas in which 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 on areas in which 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 100A, 110A, and 110D. Designed for junior/senior. Investigation of scientific study of cognition and behavior in animals. Topics include perception and attention, working and reference memory, memory for space, and for objects and events (including course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

115. Principles of Behavioral Neuroscience. (4) Lecture, three hours; discussion, one hour. Requisites: course 100A, Life Science 2 or 7A or 10A 10B, and 10C. Not open to students with credit for course M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychobiology M180A) or Psychobiology M180B. Advanced topics in neurobiological processes and their role in learning, memory, and behavior. P/NP or letter grading.

116. Behavioral Neuroscience Laboratory. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 100A, 100B, and 100C. Designed for psychology and psychology majors. Laboratory experience with various topics in behavioral neuroscience. P/NP or letter grading.

M117A-M117B-M117C. Neuroscience: From Molecules to Mind. (5–5–5) Same as Molecular, Cell, and Developmental Biology M175A-M175B-M175C, Neuroscience M101A-M101B-M101C, and Physiological Science M180A-M180B-M180C. Lecture, four hours; discussion, 90 minutes; laboratory, three hours. Requisites: course 110A, Cellular and Systems Neuroscience. Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A (14C may be taken concurrently), Life Sciences 2 or 7C, Physics 1B or 1BH or 5C or 5CH. Not open for credit for Physiological Science 111A. For Neuroscience and Physiological Science majors, grade of C– or better is required to proceed to Neuroscience M101B or Physiological Science 111B. Cellular neurophysiology, membrane potential, action potentials, and synaptic transmission. Sensory systems and motor system; how assemblies of neurons process complex information and control movement. P/NP or letter grading.

M117E. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course 115 or M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychobiology M180A) or Physiological Science M180B; Neuroscience majors must have grade of C– or better) or Physiological Science 111A; Life Sciences 3 and 4 (may be taken concurrently), or 7C. Molecular biology of changes in gene expression; communication between neuronal channels and neurotransmitter receptors. Molecular biology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, and mRNA. Classical experimental and modern molecular approaches in developmental neuroscience. P/NP or letter grading.

M117C. Behavioral and Cognitive Neuroscience. (5) Requisites: course 115 or M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Physiological Science M180A; Neuroscience majors must have grade of C– or better) or Physiological Science 111A. Presentation of basic principles from each of the following approaches to fear and anxiety: taken from laboratory and applied research. In addition to overview of major principles from each approach, emphasis on areas in which research advances have recently occurred. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.


119C. Cognitive Neuroscience. (4) Lecture, three hours. Requisite: course 115 or M117C. Understanding complex mental functions depends on integration 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.


119E. Stress and Bodily Disease. (4) Lecture, three hours. Requisite: course 115. Designed for juniors/senior. Presentation of current perspectives on how complex processes of mind may be understood using neuroscientific techniques. Consideration of stress-related topics, including brain neurophysiology, membrane potential, action potentials, and synaptic transmission. Sensory systems and motor system; how assemblies of neurons process complex information and control movement. P/NP or letter grading.

119F. Neural Basis of Behavior. (4) Lecture, three hours. Requisite: course 115. Designed for juniors/senior. Presentation of current data and theory con-
caring how neuron 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. Psychology of Aging. (Same as Gerontology M119G.) 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. Mechanisms 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.

119P. Emerging Topics in Neuroscience. (4) Lecture, two hours; discussion, one hour. Requires: 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.

119Q. Psychobiology of Sleep and Dreams. (4) Lecture, three hours. Requires: 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 control of sleep, development and aging of 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.


119R. Human Neuropsychology. (4) Lecture, three hours. Requires: course 115. Philosophy of mind has relied on introspection and thought experiments to explore consciousness, self, and free will. Field of neuropsychology: methods and methodologies of neuroscience to investigate these seemingly impenetrable constructs. Provides students with foundation in neuropsychology, which includes basic understanding of philosophy of mind, neuroanatomy, the role of consciousness in cognition, and examination of scientific methods available for studying these phenomena. Exploration of student experiences of self and in examinations of how in brain functioning do to injury, psychopharmacology, and dreaming result in alterations in these phenomena. P/NP or letter grading.

M119L. Human Neuropsychology. (4) Same as Neuropsychology 119L. Three hours. Recommended: courses 115 or M117A and M117C, 120A or 120B. Designed for juniors/seniors. Survey of experimental and clinical human neuropsychology, including basic principles and clinical applications. P/NP or letter grading.

119M. Neurocircuit Learning and Memory. (4) Lecture, three hours. Requires: course 115. Designed for juniors/seniors. Introduction to classical and current theories on learning and memory from individual brain systems to circuits. P/NP or letter grading.

M119N. Visual System. (4) Same as Neuroscience M119N. Three hours. Requires: 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 lectures, extensive reading, and discussions. 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 in context of direct experience. Interns provided with necessary background to undertake various research activities during Winter and Spring Quarters. P/N/P or letter grading.

125B. Research Methods in Developmental Psychology. (4) Laboratory, three hours; fieldwork, seven hours. Limited to departmental majors. 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. Research approaches utilized by psychologists to conduct research in developmental psychopathology. Letter grading.

126. Clinical Psychology Laboratory. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, and 127A or 127B or 127C. Designed for departmental majors. Methods, designs, and issues in conduct of clinical psychology research. Students develop and conduct research. Content varies by instructor, concentration on, one of following: schizophrenia, mood disorders, 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, eating disorders, schizophrenia) across lifespan, including role of biological, behavioral, social, cognitive, and cultural factors, diagnosis and treatment approaches. Discussion of stigma and mental illness; cultural factors that support inclusiveness. P/N/P 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 biological processes involved in etiology, presentation, and course of psychotic disorders, and biological targets or mechanisms of treatment. Emphasis on clinical neuroscience and behavioral genetics as scientific modalities to understand mood disorders, substance use disorders, psychosis, and others. P/N/P 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 development from infancy through adolescence and early adulthood. Clinical disorders include behavioral disorders, depression/anxiety, alcohol/substance disorders, eating disorders, and autism spectrum and other related disorders. P/N/P or letter grading.

129A. 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. Emphasis on dimensions of personality dealing with a few representative personality dimensions. P/N/P 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 (e.g., African Americans, Latinos/Chicanos, Asian Americans, and American Indians). P/N/P or letter grading.

129D. Personality. (4) Lecture, three hours. Requisites: courses 10, 100A. Development of personality theory, academic, social, personality, and clinical. Emphasis on personality assessment and measurement. P/N/P or letter grading.

129E. Human Sexuality. (4) Lecture, three hours. Designed for senior Psychology majors. Overview of psychology of human sexuality. Psychological research, assessment, and therapy described in a format which highlights their significance for understanding human sexual functioning. Psychological mechanisms underlying expression of human sexuality. P/N/P or letter grading.

130. Developmental Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for juniors/seniors. Elaboration of developmental aspects of physical, mental, social, and emotional growth from birth to adulthood. P/N/P or letter grading.

131. Research in Developmental Psychology. (4) Discussion, one hour; laboratory, three hours. Requisites: courses 10, 100A, 100B, 100C, and 133A through 133I. Designed for Psychology and Cognitive Science majors. Forms of scientific writing; ethics of research, especially with minors; special advantages and problems of asking developmental research questions; relevant methodologies for experimental and observational work; data analysis and data presentation options. Letter grading.

132A. Learning Problems, Schooling Problems: Policing Perfection. (4) Seminar, two hours; fieldwork, eight hours. Designed for juniors/seniors. Exploration of different orientations to persons with learning problems, emphasizing assessment and intervention approaches and psychological measures. Topics include interaction of learner and environment, socio-political nature of classroom, psychological impact of schooling, grades, and evaluations, process versus product focus in learning. P/N/P or letter grading.

132B. Mental Health in Schools: Policy and Practice. (4) Seminar, three hours. Limited to juniors/seniors. Policies, models, and mechanisms for mental health in schools. Psychopathology placed into broader perspective of normal development and psychosocial problems to explore range of theoretical, practical, and ethical issues. P/N/P or letter grading.

133A. Adolescent Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Major theories, approaches, and issues in study of cognitive development. Readings include original research on important topics such as development of perception, language, thinking, and problem solving, and acquisition of concepts and domain-specific language. P/N/P or letter grading.

133B. Cognitive Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Major theories and research findings on cognitive, social, physical, and physiological development of the adolescent. P/N/P or letter grading.

133C. Language Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of principles of language development to field perception of language development. Topics include first and second language acquisition (sounds, meanings, grammatical structures), learning mechanisms, communication skills, and relation between language and thought. P/N/P or letter grading.

133D. Social and Personality Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Theory and research on social and personality development during childhood. Topics include parent/child attachment, temperament, self-control, aggression, sex-typing, self-concept, moral reasoning and behavior, social status and social skills, and peer group relations. P/N/P or letter grading.

133E. Perceptual Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Topics include origins and development of human perceptual abilities, origins of knowledge of function, and important aspects of the environment, ecological and computational issues in perception, research and theory on visual and perceptual development. P/N/P or letter grading.

133F. Psychology and Education. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of principles of cognitive development, learning, and perception to educational problems. Topics include general and instructional issues in teaching and mathematics, exceptional children, early childhood education, and education of the disadvantaged. P/N/P or letter grading.

134A. Applied Developmental Psychology: Infant/Toddler Care and Education. (4) Lecture, three hours. Designed for Applied Developmental Psychology minors. Coverage of children zero to three years old. Topics include physical, cognitive, social, and emotional development of children, developmentally disabled children, child care services, and child care careers. P/N/P or letter grading.

134B. Applied Developmental Psychology: Preschool-Age Care and Education. (4) Lecture, three hours. Designed for Applied Developmental Psychology minors. Coverage of children three to eight years old. Topics include physical, cognitive, social, and emotional development of children, developmentally appropriate practices, child care quality, role of educator/caregiver, and other related issues. Letter grading.

134C. Advanced Applied Developmental Psychology. (4) Seminar, one hour; fieldwork, eight hours. Requisites: courses 134A, 134B, 134D, 134E. Designed for Applied Developmental Psychology minors. Continuing fieldwork in advanced applications of developmental psychology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/N/P or letter grading.

134D. Fieldwork in Applied Developmental Psychology. (2) Fieldwork, 86 hours per term. Enforced corequisite: course 134A. Designed for Applied Developmental Psychology minors. Fieldwork in applications of developmental psychology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/N/P grading.

134E. Advanced Fieldwork in Applied Developmental Psychology. (2) Fieldwork, 86 hours per term. Enforced corequisite: course 134B. Designed for Applied Developmental Psychology minors. Fieldwork in applications of developmental psychology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/N/P grading.
chology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/NP grading.

134F. Infant Care and Development. (4) Lecture, three hours. Requisites: course 10, one course from 130 or 133B through 133I, one statistics course. In-depth study of research methods, current research findings, and theories used to understand infant development from conception to second year of life, including cross-cultural application of this knowledge to various populations. P/NP or letter grading.

134G. Early Childhood Curriculum. (4) Lecture, three hours. Requisites: course 10, one course from 130 or 133B through 133I, one statistics course. Examining of materials, methods, and research that enhance development of children in context of childcare settings. Topics include issues of multiculturalism, antibias curriculum, and special needs adaptations. P/NP or letter grading.

134L. 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 backgrounds and impact 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. Designed for Psychology majors. Introduction to social psychology, its history and evolution. Requisites: courses 10, 100A. Limited to juniors/seniors. Perspectives on major features of social psychological research and theory, development of career choice, job findings, leadership, personality, motivation, and influence of culture on self. P/NP or letter grading.

136A. Social Psychology Laboratory. (4) Lecture, one hour; laboratory, four hours. Requisites: courses 10, 100A, 100B. Designed for Psychology majors. Introduction to research designs and methods used to test social psychological hypothesis, including fieldwork with survey research, naturalistic observation, controlled analysis, and/or questionnaires. P/NP or letter grading.

136B. Nonexperimental Methods in Social Psychology. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Research experience with nonexperimental methods for study of social attitudes or behavior, including fieldwork with survey research, naturalistic observation, controlled analysis, and/or questionnaires. P/NP or letter grading.

136C. Survey Methods in Psychology. (4) Lecture, two hours; laboratory, three hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Survey research in psychology, with particular emphasis of social psychological 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, data coding, and analysis. Training in 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 relevant to understanding aspects of the sport psychology concepts, including youth sport participants as well as world-class performers.

M137B. 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., voice, facial expression and body language, and gesturing and kinesics), 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, conflict resolution, social support, sex, role of individual differences, and external circumstances. P/NP or letter grading.

137D. Psychology of Diversity. (4) Lecture, three hours. Requisite: 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 these dimensions influence forms of contemporary problems including management of diverse workforce, immigrant integration, racial tensions, and health/educational disparities. P/NP or letter grading.

M137E. Work Behavior of Women and Men. (4) (Same as Gender Studies M137E) Lecture, two and one half hours. Requisite: course 10 or Gender Studies 10. Designed for seniors. Examination of work behavior of women and men. Topics include antecedents of career choice, job findings, job satisfaction, evaluation 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 aggression, personality, motivation, fan behavior, and performance enhancement. Consideration of youth sport participation and world-class athletics. P/NP or letter grading.

137G. Social Cognitive Neuroscience. (4) Lecture, three hours; laboratory, three hours. (Same as Neurosciences M137G.) Fundamentals of social neuroscience (SCN) and survey of broad array of topics in field. SCN is fundamental merging of social science and neuroscience methods, with particular emphasis on functional magnetic resonance imaging (fMRI). P/NP or letter grading.

137J. Self and Identity. (4) Seminar, three hours. Requisite: course 10. Designed for juniors/seniors. Examination of behavior and research that addresses self from social psychological perspective. Topics focus on self-knowledge, how self is represented in memory, illusions about self, self-esteem, implicit (subconscious) self, self-regulation, social comparison, self-relevant emotions, and influence of culture on self. P/NP or letter grading.

137K. Psychology of Emotion. (4) Lecture, three hours. Designed for 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, self-regulation of our emotions, whether emotions can make us sick, and what it means to be happy. Exploration of range of perspectives in psychology, ranging from social, cultural, developmental, health, and clinical psychology. Consideration also of cognitive and behavioral neuroscience. P/NP or letter grading.

M138. Electoral Politics: Political Psychology. (4) (Same as Political Science M141A) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 10. Designed for juniors/seniors. Examination of political behavior, political socialization, personality, opinion, conflict, and psychological analysis of public opinion on these issues.

139P. Perspectives on Autism and Neurodiversity. (4) (Same as Disability Studies M139P) 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 the early 1940s to its current contested status as minority identity and/or global epidemic. Examination of material on autism and societal views of individuals with autism spectrum disorder (ASD) and conditions that involve, and put them in conversation with one another. Attention paid to ways people on spectrum define, explain, and represent their own experiences of autism and discussion of what ramifications this multiple framings are in context of autism intervention strategy and disability policy today. Letter grading.

M140. Introduction to Study of Aging. (4) (Same as Social Welfare M140J) Lecture, three hours. Designed for juniors/seniors. Perspectives on major features of human life—biological, social, and humanistic. Introduction to information on influence of 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 science: correlational techniques, analysis variance, and multiple regression. P/NP or letter grading.


M147A. Psychology of Lesbian Experience. (4) (Same as Anthropology M137A 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 seniors. Review of research and theory in gender studies and psychology to examine various forms of lesbian, gay, bisexual, trans, and queer experiences. Focus on identity, heterosexism/stigma, gender role socialization, minority status of women and lesbians, identity development within a multicultural society, changes in psychological theories about lesbians in sociohistorical context. P/NP or letter grading.

M149. Language Development and Socialization. (4) (Same as Anthropology M137M) 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 socioecononic groups. Bridges work from anthropology, psychology, linguistics, and cognitive science. Topics include cross-cultural patterns of language development and wide range of methodological approaches. Examination of ways in which language development and socialization interact with culture, modality, inequality, education, and cognition. P/NP or letter grading.

150. Introduction to Health Psychology. (4) Lecture, three hours. Requisite: course 10. Areas of health, illness, treatment, and delivery of treatment that can be elucidated by understanding of psychological concepts and research, psychological perspective on these problems, and how psychological perspective might be enlarged and extended in medical area. P/NP or letter grading.


152. Mind-Body Interactions and Health. (4) Lecture, three hours. Designed for junior/senior Psychology and Psychology majors. Examination of bidirectional interactions between mind and body and how these interactions influence physical health. Topics include impact of stress, emotions, personality, and the 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 127A or 127B or 127C. Limited to 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, as well as current knowledge of genetic contributions to cognition and behavior and disorders thereof. P/NP or letter grading.


M163. Death, Suicide, and Trauma. (4) [Same as Sociology M138.] Lecture, three hours; discussion, one hour. Sociological analysis of incident of violent death. Suicide is eighth leading cause of death in U.S. and third leading cause of death among people aged 19–24. Both kinds of violent deaths are often dismissed as extreme psychopathology, reflecting individual mental health issues. Sociologists argue that suicide and homicide are personal and 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 medical research to determine suicide and solve homicides. Review of historic and contemporary studies to examine how research and conceptualizations of suicide and homicide have changed, as well as social responses to these phenomena. P/NP or letter grading.

164. Puberty and Sleep. (4) Lecture, three hours. Requisite: course 10. Limited to juniors/seniors. Exploration of how normative biological and hormonal changes affect behavior of developing children. Adolescent influence adolescent behavior and well-being. Focus specifically on puberty and sleep, which both lead to consequential effects on behavior, health, and brain development. P/NP or letter grading.

M165. Psychology of Gender. (4) [Same as Gender Studies M165.] Lecture, three hours. Consideration of psychological literature relevant to understanding contemporary sex differences. Topics include sex-role development, sex-role conflict, physiological and psychological sex differences between men and women, sex differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

M166. Neurobiology of Bias and Discrimination. (4) [Same as Neuroscience M187 and Psychological Science M186.] Lecture, three hours. Limited to junior/senior neuroscience, physiological science, and psychology majors. Exploration of aspects of mammalian brain function that generate preference, bias, and discrimination. Consideration of research at multiple levels as it relates to behavior. Discussion of societal 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. Examination of science social research on media and technology during development to understand positive and negative roles of technology and media in children's lives. Topics include social media, video games, brain development, and learning with technological tools from age 2 through 18 (and through emerging adulthood). May be repeated for credit. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4) [Same as African American Studies M172 and Gender Studies M172.] Lecture, 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.

173. Advanced Abnormal Psychology. (4) Lecture, three hours. Requisite: course 100A. Limited to course M181A. Examination of research and theory concerning origins, course, and outcomes of disordered behavior. Focus on continuity and change in pathological development of mental illness. Research approaches. Concentration on one of following: childhood disorders, anxiety and stress, schizophrenia, or mood disorders. P/NP or letter grading.

M174. Health Disparities. (4) [Formerly numbered 174.] [Same as Life Sciences M174.] Lecture, three hours. Examination of health disparities and ways in which societal responses to race and ethnicity in combination with variety of other factors can create differential quality and access to healthcare resulting in poor health outcomes in racial/ethnic minorities. Basic foundation for critical thinking about assumptions that shape beliefs of scientific research, clinical practice, and social and behavioral sciences as they relate to race and ethnic minority populations and to teach students to integrate concepts of culture and health disparities into biocultural, political, psychological, genetic, and clinical health interpretative frameworks. P/NP or letter grading.

175. Community Psychology. (4) Designed for junior/senior Psychology majors. Application of psychological principles to understanding and solution of community problems. Topics include community development, community mental health problems, drugs, racism, and rehabilitation of prisoners.

M176SL. Addressing Racism in Road/ Ethnic Minority Communities to Reduce and Prevent Health Disparities. (4) [Same as Civic Engagement M176SL.] 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. Currently in racial and ethnic minority communities, health status of individuals can be function of built environment, exposure to pollutants and toxins, scarcity of supermarkets or stores with fresh produce and nutritional food, noise levels, and variety of other stressors and conditions. Health interventions are often focused on individual-level change or increases in access to healthcare with little in way of changing risk environments. Designed to identify and provide strategies to address social determinants related to negative health outcomes in racial/ethnic minority neighborhoods and communities and to experience how to use social determinants literature in service of collaborative activities with community organizations. P/NP or letter grading.

177. Counseling Relationships. (4) Lecture, two hours; discussion, two hours. Requisites: courses 10, 100A, and 127A or 127B or 127C. Designed for junior/senior Psychology majors. Conceptual and empirical foundations of psychological counseling; comparison of alternative models of counseling processes. Emphasis on counseling in community mental health areas such as drug abuse, suicide prevention, and crisis intervention. P/NP or letter grading.


179B. Biomedical and Psychosocial Aspects of AIDS/HIV. (4) Lecture, three hours. Requisite: course 150 or 179A or Health Policy 100. Designed for juniors/seniors. Basics of epidemiology of AIDS, routes of transmission, clinical characteristics of AIDS, neurobiological and psychological aspects of coping with HIV infection and AIDS. Presentation of biologic, behavioral, and therapeutic interventions. P/NP or letter grading.

M181. Contemporary Problems in Developmental Disabilities. (4) [Same as Psychiatry M181.] Seminar, three hours. Corequisite: course M181A. Limited to Developmental Disabilities Program students. Examining the broad spectrum of developmental disabilities and consideration of models of retardation, intelligence and IQ, genetics, neurobiology, and other developmental disabilities. P/NP or letter grading.

M181A. Research in Contemporary Problems in Developmental Disabilities. (4) [Same as Psychiatry M181B.] Lecture, one hour; laboratory, eight hours. Requisites: courses M181 and M181B. Limited to Developmental Disabilities Program students. Research experience. In Progress grading (credit to be given only on completion of course M181B).


184A-184B. Psychology Research Opportunity Program Seminars. (2–2) Designed to bring together Psychology Research Opportunity Program (PROP) students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. P/NP grading.

185. Research Practicum in Psychology. (3) Laboratory, seven hours. Corequisite: course C194D. Limited to junior/seniors. 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.

186A. Cognitive Science Laboratory: Introduction to Theory and Simulation. (4) Laboratory, four hours. Requisites: courses 10, 85, 100A, 100B, Program in Computing 10A, 10B. Designed for junior/senior departmental majors. Models of cognition within framework of explanation at multiple levels of abstraction. Examples of elementary models in multiple psychological domains (e.g., visual perception, category learning, 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.

186B. Cognitive Science Laboratory: Natural Networks. (4) Laboratory, four hours. Requisites: courses 10, 85, 100A, 100B, Mathematics 31A, 31B, Program in Computing 10A, 10B. Designed for junior/senior departmental majors. Models of cognition within framework of explanation at multiple levels of abstraction. Examples of elementary models in multiple psychological domains (e.g., visual perception, category learning, 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.

186C. Cognitive Science Laboratory: Psychophysiological Theories and Methods. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 85, 100A, 100B. Designed for junior/senior departmental majors. Lectures and laboratory work that examine perceptual measurement procedures (psychophysical methods) and cognitive processing and decision models on which procedures are based, with particular emphasis on signal detection theory and its applications. Letter grading.
196D. Laboratory in Functional Neuroimaging. (4)
Laboratory, four hours. Enforced requisites: courses 10, 100A, 100B. Limited to departmental majors. Introduction to study of brain with functional resonance imaging (fMRI). All major aspects to be discussed, from a neural basis of MR signal to data analysis. Letter grading.

197A. Psychology and Law. (4)
Lecture, two hours; discussion, two hours. Designed for juniors/seniors. Study of new topics on legal psychology, including suspect identification, witness reports, and police procedures. Outside speakers utilized in presentation of these materials. Students participate in presentations of material. May be repeated for credit. P/NP or letter grading.

197B. Advanced Psychology and Law. (4)
Lecture, three hours; discussion, one hour. Requisite: course 197A. Designed for juniors/seniors. Study of additional topics on legal psychology, including gang violence, theories of crime, corrections, repeat offenders, community policing, and interrogation. Outside speakers utilized in presentation of these materials. P/NP or letter grading.

197C. Sex and Law. (4)
Lecture, three hours. Limited to juniors/seniors. Examination of Constitutional foundation for sexual rights in America, with focus on free-dom of speech and press, right to privacy, and the Ninth Amendment rights reserved by the people. P/NP or letter grading.

18A. Special Seminars: Psychology. (4)
Seminar, three hours. Limited to juniors/seniors. Departmentally sponsored experimental or temporary seminars on special topics in psychology, such as those taught by visiting faculty members. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP or letter grading.

18B. 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.

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 Psychology. (1)
Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

191. Variable Topics Research Seminars. (2–3)
Seminar, one hour. Designed for junior/senior majors. Exploration of particular field or attendance at and write-ups of speakers series. May be repeated for credit. P/NP grading.

194A. Internship Seminars: Psychology. (2)
Seminar, two hours. Corequisite: course 195A. Study of research methods, applications, and current literature through group discussion, presentation, and papers. Research topics vary from year to year. May be repeated for credit. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194B. Research Group Seminars: Psychology. (1)
Seminar, one hour. Corequisite: course 196A (3-unit option). Limited to juniors/seniors who are part of research group. Discussion of research methods and current literature in field of research of faculty members or students. Only 12 units from any combination of courses 195, 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.

194C. Research Group Seminars: Cognitive Science. (1)
Seminar, one hour. Corequisite: course 196B (3-unit option). Limited to junior/senior Cognitive Science majors who are part of research group. Discussion of research methods and current literature in field of or of research of faculty members or students. Only 12 units from any combination of courses 195, 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.

194D. Research Group Seminars: Practicum. (1)
Seminar, one hour. Corequisite: course 195B. Designed for undergraduate students 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 from any combination of courses 195, 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.

195A. Community Internships in Psychology. (2)
Tutorial (approved community setting), six hours. Corequisite: course 194A. Limited to juniors/seniors. Internship in applications of psychology in supervised setting in community agency or business. Students meet on regular basis with sponsor and provide periodic reports of their experience. Only 12 units from any combination of courses 195, 192, 194, 195, and 196 may be applied toward undergraduate degree. May be applied toward course requirements for Cognitive Science major. Individual contract with supervisor required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

195B. Corporate Internships in Cognitive Science. (4)
Tutorial, eight hours. Limited to junior/senior Cognitive Science majors. Practical applications of cognitive science through internship experience in supervised setting. Students meet on regular basis with supervisor and provide periodic reports of their experience. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for Cognitive Science major. Individual contract with supervisor required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

196A. Research Apprenticeship in Psychology. (3 to 4)
Tutorial, eight hours. Corequisite: course 194B. Designed for juniors/seniors. Practical applications of psychology through research supervision 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 Cognitive Science 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. (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.

198. Honors Research in Psychology. (2)
Tutorial, two hours. Enforced corequisite: course 191AH or 191BH or 191CH. Limited to juniors/seniors and psychology honors program students. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty mentor. May be repeated for credit. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. Letter grading.

199A. Senior Project in Psychology. (4)
Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of psychology faculty mentor. Culminating paper required. Only one 4-unit 199 course may be taken per term. May be repeated for credit. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. 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. Culminating paper required. Only one 4-unit 199 course may be taken per term. May be repeated for credit. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. Letter grading.

Graduate Courses

200A. Pavlovian Processes. (4)
Lecture, three hours. Basic principles and characteristics of learning and behavior, including Pavlovian conditioning, instrumental learning, and habituation. S/U or letter grading.

200B. Instrumental Conditioning. (4)
Lecture, three hours. Topics include animal learning and conditioning with emphasis on the role of reinforcement and extinction in goal-directed action, motivational processes, and goal selection in nonhuman animals. S/U or letter grading.

201. Current Issues in Learning and Behavior. (1) Discussion, 90 minutes. Designed for graduate students. Required of learning and behavior students a minimum of four times (entire first year and winter of second year). Presentation of papers of current interest in learning, behavior, or applied behavioral analyses by experts in the field. Evaluation of their significance and methodology in detail. May be repeated for credit. S/U grading.

202. Research in Learning and Behavior. (2) Forum in which graduate students discuss the literature and methodological, analytical, and interpretational issues related to specific topics of research in learning and behavior. S/U grading.

204A. Basic Motivational Processes. (4) Lecture, three hours. Designed for graduate students. Analysis, using behavioral systems approach, of basic motivated behavior such as feeding, drinking, foraging, and reproduction. Same approach also applied to phenomena such as acquired motivation, reinforcement, and drug addiction. Historical survey of behavioral analyses of motivation and goal-directed behavior. S/U or letter grading.

204B. Theories of Adjustment. (4) Discussion, three hours. Requisite: course 200A. Critical discussion and in-depth analysis of current major theoretical approaches to associative learning, with emphasis on recent experimental analyses of conditioning phenomena.

204C. Evaluative Processes. (4) Lecture, three hours. Designed for graduate psychology students. Lectures and discussion on current research in application of learning principles to clinical and social problems such as alcohol and drug abuse, aggression, fear management, mental retardation, behavioral medicine, autism/schizophrenia, etc. S/U or letter grading.

204D. Fear and Anxiety. (4) Lecture, three hours. Preparation: graduate training. Presentation of theoretical and empirical advances, from biological and behavioral perspectives, in the area of fear and anxiety. Integration of human and animal research.

205A. Cortical Plasticity and Perceptual Learning. (2) Lecture, three hours. Designed for graduate students. Examination of neural basis of perceptual learning 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, language, regional functional specialization, attention, and regulation of cortical function by extracortical systems. Letter grading.

205C. Neurotransmitters in Human Disorders of Motor and Cognitive Function. (2) Lecture, three hours. Designed for graduate students. Detailed analysis of mechanisms involved in interneuronal communication processes (i.e., neurotransmitters, neuropeptides, neuropeptides, neuromodulators, neurotrophic agents). Discussion of their roles in normal brain physiology, by detailed examination of basal ganglia in various disease states. Particular emphasis on current and past thinking about Alzheimer's disease, Parkinsonism, Huntington's disease, and Down's syndrome dementia.

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, animal models, and "atypical" compounds. Letter grading.


205F. Physiology of Learning. (2) Lecture, three hours. Designed for graduate students. Search for an 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 and environmental influences and for locating and characterizing genes impacting these traits. Involves discussion of contributions to cognition and behavior and disorders thereof. Letter grading.

205I. Attention. (2) Lecture, three hours. Designed for graduate students. Review of cognitive neuroscience and the evidence for the existence of functional specialization in brain systems. The evidence for specialization across multiple modalities. 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 retina, 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 include agnosias and characteristic 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, four hours. Emphasis on basic electronics and some common types of signal processing of value in laboratory research in animal and human neuroscience, with applications in human physiology such as neuroimaging, electroencephalogram (EEG), and cardiovascular phenomena. S/U or letter grading.

207. Seminar in Behavioral Neuroscience. (4) Seminar, three hours. Requisite: Neuroscience M203 or consent of instructor. Recent developments in the field of Behavioral Neuroscience. May be repeated for credit. S/U or letter grading.

208. Biology of Learning and Memory. (4) Seminar, three hours. Molecular, cellular, circuit, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide the 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) Discussion, 90 minutes. Papers of current interest presented by members of seminar and their significance and methodology discussed and criticized in depth. May be repeated for credit. S/U grading.


215A. Health Psychology. (4) Lecture, three hours. Preparation: undergraduate degree or training in psychology. Psychological and social factors involved in etiology of illness, treatment and course of illness, long-term care and adjustment of chronically ill or disabled, and practice of institutional healthcare and self-care. Letter grading.

215B. Human Physiology in Social and Behavioral Science. (4) Lecture, three hours. Limited to graduate students. Major themes include conceptualization and operationalization of the role of social factors in health and illness, with reference to the biological systems that mediate their effects.

216A. Psychology of Chronic Disease. (4) Seminar, three hours. Limited to graduate students. Major themes include conceptualization and operationalization of the role of social factors in health and illness, with reference to the biological systems that mediate their effects.
216G. Biology of Chronic Disease. (4) Seminar, three hours. Limited to graduate students. Examination of basic epidemiology and biology of major chronic diseases (e.g., cardiovascular disease, cancer, diabetes) and consideration of practical and logistical issues involved in studying chronic disease populations in behavioral and population research. S/U or letter grading.

218H. Health Behavior Theory and Behavior Change. (4) Seminar, four hours. Overview of research and theory in health behavior and health behavior change. Identification of contribution of health behaviors to overall health, construction of study methods to measure major health behaviors, critical evaluation of health behavior research, and generation of hypotheses and design research using main health behavior theories. S/U or letter grading.

217. Variable Topics in Health Psychology. (4) Seminar, three hours. Topics vary by instructor within health psychology area of study and may include epigenetics, child health psychology, health behavior, and behavior change. May be repeated for credit. S/U or letter grading.

218. Research Methods in Health Psychology. (4) Seminar, three hours. Designed for graduate psychology students. Basic foundation for health psychology graduate students to study various research designs and 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. (2) Formerly numbered 425L. Lecture, one hour.Clinicians and researchers in health psychology from Los Angeles, Orange County, and inland areas present their research, programs, and/or clinical work as part of training program in health psychology. May be repeated for credit. S/U grading.

220A. Social Psychology. (4) Lecture, three hours. Designed for graduate psychology students. Basic foundation for health psychology graduate students to study various research designs and measurement issues, responsible conduct of research, and related issues that are found in research in health psychology. S/U or letter grading.


220C. Advanced Social Psychology. (4) Lecture, three hours. Requisites: courses 220A or 220D. Review of contemporary topics and issues in social psychological research and methodology.

220D. Introduction to Social Psychology. (4) Lecture, three hours. Designed for graduate students. Introduction to theory and research in social psychology. Students 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. Requisites: course 220A. 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: advanced social psychology course (psychological or sociological). Review of theory and research on interpersonal influence and social power, with applications to various power relationships such as supervisor/subordinate, healthcare professional/patient, doctor/nurse, parent/child, wife/husband, teacher/student, political figures, etc. S/U or letter grading.

222C. Psychology of Intergroup Relations. (4) Lecture, three hours. Designed for graduate students. In-depth and comprehensive exposure to major theoretical and methodological issues within domain of intergroup relations research. Approaches not simply restricted to work within psychology but also cross social sciences in general, including anthropology, political science, and sociology. S/U or letter grading.

222D. Social Stigma. (4) Seminar, three hours. Introduction to classic and contemporary theory and research on social psychology of stigma, primarily from a perspective of social psychology.

M222E. Individuals and Groups in Organizations. (4) Same as Management-PhD M243.) Lecture, three hours. Designed for graduate students. Doctoral-level survey of classic and emerging theories and research in field of organizational behavior, with focus on micro-level topics related to individual and interpersonal processes within organizations. Exploration of how individuals make inferences, form impressions, and perceptions are affected by organizational context, structure, and culture. S/U or letter grading.

222F. Professional Issues in Psychology. (4) Seminar, three hours. Acquisition of skills essential for sucesso in graduate school and academia more broadly, including transition to graduate school, writing, manuscript reviewing, grant writing, teaching and mentoring, academic job market, job negotiating, and giving job talks. Involved in guest speakers, lectures, discussions, readings, written exercises, and practical experience. S/U or letter grading.

222G. Social Vision. (4) Seminar, three hours. Exploration of nascent field of social vision, with emphasis on how observation 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.


225A. Social Problematics. (4) Lecture, two hours. Social problematics is concerned with problems of human behavior and social interaction which are considered to be social problems or social issues. S/U or letter grading.

225B. Social Psychology of Health. (4) Seminar, two hours. Social psychology of health is concerned with the role of social factors in health and illness and the impact of illness on society. S/U or letter grading.

226A. Proseminar: Political Psychology. (4) Seminar, three hours. Requisites: course 220A or 220B. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and other topics. S/U or letter grading.

226B. Seminar: Political Psychology. (4) Same as Political Science M261D.) Discussion, three hours. Requisites: course 220A or Political Science M261A. Examination of political behavior, political socialization, racial conflict, mass political movements, and public opinion. S/U or letter grading.

226C. Critical Problems in Political Psychology. (4) Same as Political Science M261E.) Discussion, three hours. Critical problems in political psychology.

229. Seminar: Gender. (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 20th century gender and in particular research on gender topics in the field. Weekly papers, as well as a lengthy final paper, required.


232. Human Sexuality. (4) Lecture, three hours. Designed for graduate students. Intended to teach students how to carry out research on human sexual behavior. Contents include theory, conditioning, scale development, physiological and endocrinological implications, radioimmunoassay (measuring hormones in blood sample), ethical issues, methodological and statistical considerations, measurement of sexual arousal, fantasy, and sexual dysfunction therapy. Discussion-oriented, with emphasis on operationalizing predictions concerning human sexual functioning.

233. Seminar: Environmental Psychology. (4) Requisites: courses 235, 250A, 250B. Critical review of research concerning indoor environmental quality. Emphasis on ability to identify basic dimensions for analysis of man/environment relationships. Use of human emotional responses to environments as intervening variables linking specific stimulus qualities to a variety of approach-avoidance behaviors. Individual differences and drug-induced states as these relate to emotional response dimensions used to explain within-individual differences in response to same environment over time or between-individual differences to same situation. Review of literature relating information rate from environments to arousal and preferences for those environments.

234. Social Psychological Aspects of Competitive Youth 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. Sources and consequences of competitive stress, significant adult influences and interactions, predictors of performance, determinants of participation and dropout, and socialization through sport. S/U or letter grading.


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 anthropology, education, psychology, and sociology. Examination 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.

M237. Survey Research Techniques in Psychocultural Studies. (4) (Same as Psychiatry M237.) Seminar, three hours. Designed for graduate students. Techniques for conceptualizing, conducting, and analyzing survey data; including strategies for enhancing survey research on psychocultural problems.

M239. Personality, Motivation, and Attribution. (4) (Same as Education M215.) Discussion, three hours. Current research and theory relating personality variables (e.g., attributional styles, self-esteem) to motivational concerns such as persistence and intensity of behavior. Perceived causes of outcomes in achievement and affective domains. S/U or letter grading.

240A. Language and Cognitive Development. (4) Lecture, three hours. Preparation: one undergraduate developmental psychology course in cognitive or language development. 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 social development or related topic. Consideration of major topics and concepts, key theories, latest methods, and research findings in social and emotional development. S/U or letter grading.

240C. Developmental Psychobiology. (4) Lecture, three hours. Limited to graduate students. Introduction to emerging field of developmental psychobiology, including cognitive and affective neuroscience.
Consideration of major topics and concepts, key theories, latest methods, and research findings. S/U or letter grading.

241. Current Developments in Developmental Psychology. (1) Discussion, 90 minutes. Designed for graduate students in developmental psychology. Presentation of papers on current advances in developmental psychology and closely related areas by experts in the field. Emphasis on approaches to a problem, making it possible to interrelate presentations by graduate students. S/U 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, changes in parent/adolescent relationships, role of peers, identity development, high-risk behaviors, stress and coping, and school adjustment. Letter grading.


244. Critical Problems in Developmental Psychol- ogy. (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.


247. Brain and Behavioral Development During Adolescence. (4) Seminar, three hours. Foundation and emerging work on adolescent brain and behavioral development. Topics include cognition, risk taking, emotion, identity, stress, relationships, and population characteristics of at-risk youth. Oral reports and presentations by guest faculty and scientists. S/U or letter grading.

249. Current Issues in Quantitative Psychology. (1) Seminar, 90 minutes. Designed for graduate students in quantitative psychology. Research presentations and discussions of current topics in quantitative psychology. May be repeated for credit. S/U grading.
268A-268E. Seminars: Human Information Processing. (4 each) Seminar, three hours. Topics vary with interests of instructor. Each course may be taken independently and may be repeated for credit.

268F. Human-Computer Interaction. (4) Lecture, three hours. Limited to graduate students. Concepts, theories, and pragmatics of human-computer interaction. 268F seeks to optimize Web and product interfaces to enhance quality of user experience, with focus on applying principles of cognition, perception, learning, and memory to create human-computer interactions that interact with human needs and capabilities. 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 psychology that encompass more than a single subfield of the area. May be repeated for credit.


271D. Clinical Research Laboratory. (2) Discussion, one hour; laboratory, one hour. Corequisites: courses 270A or 270B or 270C, and 271A or 271B or 271C. Designed for graduate clinical psychology students. Acquaints students with faculty research interests and involves them in their course 251 research at an early stage to insure completion. S/U grading.


272A. Clinical Interventions for Psychological Problems of Children. (4) Seminar, three hours. Requires or corequisite: course 401 or 451. May be taken independently for credit. Letter grading.

272D. Family Therapy and Research. (4) Seminar, three hours. Requires: courses 270A, 270B, 270C, 271C. Survey of major theoretical models of therapy and how each applies to specific clinical cases, with emphasis on depression, bipolar disorder, and schizophrenia. Discussion of areas of research that relate to family therapy. Requisites and specific discussions may vary. May be taken independently for credit. Letter grading.

272E. Special Problems. (4) Seminar, three hours. Requires or corequisites: courses 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 to cover a range of adult problems. Letter grading.

272F. Behavior Modification with Adults. (4) Seminar, three hours. Requires 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 to cover a range of adult problems. Letter grading.

272G. Marital Therapies. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Requires: courses 270A, 270B, 270C, 271A, 271B, 271C. Examination of assessment and treatment approaches for relationship problems in couples. Presentation, discussion, and illustration of procedures derived from social-learning, psychodynamic, and systemic theories, with relevant research findings. May be taken independently for credit. Letter grading.

272A-273B-273C. Professional and Ethical Issues in Clinical Psychology. (2–2–2) Lecture, one hour; discussion, one hour. Designed for graduate clinical psychology students. Year-long course sequence covering variety of topics necessary for clinical psychology practice in clinical settings including legal and ethical issues, child abuse, suicide assessment, issues in empirically validated treatments, psychiatric consultation and psychoactive medications, working with diverse client populations, etc. Letter grading.


275. Critical Issues in Methodological Issues in Community Intervention. (4) Lecture, three hours. Limited to graduate students. Conceptualization of social problems from macrosocial perspective; discussion of multidimensional explanatory models for select illustrative problems; discussion and critical evaluation of both individual-focused and community-focused interventions with high-risk and impacted populations. S/U or letter grading.


277A-277B. Advanced Clinical Assessment (A–4) (Formerly numbered 277L). Lecture, four hours; laboratory, three hours. Designed for graduate clinical psychology students. Projective techniques, clinical interpretation, case studies, psychological test battery, psychophysiology, and application of assessment to problems in psychotherapy. Letter grading.

278. Functional Neuroimaging: Techniques and Applications. (3) Same as Biomedical Engineering M284, Neuroscience M285, Physics and Medicine in Medicine M285, and Psychology M288B, Letter grading. Introduction to fMRI and depth examination of activation imaging, including MRI and electrophysiological methods, data acquisi-

tion and analysis, experimental design, and results obtained thus far in human systems. Focus on understanding technologies, how to design activation imaging paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiments. S/U or letter grading.


280. Affective Disorders. (2 or 4) (Same as Psychiatry M234.) Seminar, two hours. General topics related to affective disorders, including depression (including manic depressive illness), including diagnosis, pharmacology, epidemiology, psychology, phenomenology, biology, and treatment. Students enrolled for 280A-280B-280C meet for the entire quarter and are required to make a presentation or prepare a research paper. S/U or letter grading.

283. Psychopathology. (4) Lecture, three hours. Survey of dominant psychological attributes of particular forms of psychopathology, including analysis of status of various theories concerned with etiology and mediating mechanisms of personality, neurotic, schizophrenic spectrum, and affective disturbances. S/U or letter grading.


289A-289B-289C. Current Issues in Clinical Psychology. (1–1–1) Seminar, four hours. Designed for first-year graduate clinical psychology students. Presentation 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 central issues, theories, and historical, psychological, and social aspects of discipline. Broad treatment of how various emphases within broader field have evolved. S/U or letter grading.

290. Principles of Biological Psychology. (4) Lecture, four hours. Intensive analysis of drug, brain, and behavior relationships. Discussion of nature and source of drugs, general aspects of pharmacology, neurotransmitters and neuromodulators, principles of behavioral pharmacology, categories of psychopharmacological agents, and pharmacological
approaches to study of drug addiction, schizophrenia, and other behavioral processes, both normal and pathological. S/U or letter grading.


295. Psychology of Diversity. (4) Seminar, three hours. Introduces students to research on group differences and psychological diversity. Topics include social identity, intergroup relations, development across lifespan and across social and cultural contexts, and group disparities in health and mental health. S/U or letter grading.

296A. Research Topics in Psychology. (1) Research group meeting, one hour. Limited to graduate students. Discussion of current literature, new ideas, methodological issues, and preliminary findings. S/U or letter grading.

296B. Research Group Seminars: Practicum. (1) Seminar, two hours; additional hours to be arranged. S/U or letter grading.

296C. Research Group Seminars: Practicum. (2) Seminar, two hours; additional hours to be arranged. Preparation: successful completion of departmental qualifying examinations and research experience. S/U or letter grading.

296D. Research Group Seminars: Practicum. (3) Seminar, three hours; additional hours to be arranged. Preparation: successful completion of departmental qualifying examinations and research experience. S/U or letter grading.

297. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty members. Credit is conditional upon successful completion of course, including attendance at workshops and seminars. S/U grading.

401. Fieldwork in Clinical Psychology. (1 to 12) Fieldwork. To be arranged. Preparation: successful completion of departmental qualifying examinations and successful practice in a field relevant to psychology. S/U grading.

402. Clinical Research Practicum. (2) Fieldwork. Two hours. Faculty and graduate students who share research interests. Discussion of current literature, new ideas, methodological issues, and preliminary findings. Meetings include research presentations and opportunities for feedback on current and proposed research activity to encourage, support, and facilitate student research expertise. Assigned reading included. S/U grading.

403. Special Topics Study Course. (1 to 4) Discussion, one to four hours. Under faculty supervision, group of students meets each week for quarter- or self-directed study group to pursue specific topic of their choice that is not covered in other department courses. S/U grading.

410A–410B–410C. Clinical Teaching and Supervision. (4–4–4) Seminar, four hours. Preparation: completion of PhD comprehensive examinations, advancement to candidacy or preparation for dissertation research actively under way. Study and practice of knowledge, concepts, and theories on teaching and supervision of applied clinical psychology. Letter grading.

410D–410E–410F. Clinical Assessment Supervision. (4–4–4) Seminar, two hours; other, one hour. Designed for third-year graduate clinical psychology students. Study and practice of knowledge, concepts, and theories on teaching and supervision of psychological assessment. Letter grading.

420A–420B. Health Psychology Practicum. (2–2) Fieldwork, to be arranged. Designed for graduate students. Preparation: determination of what areas of health, illness, treatment, and delivery of treatment can be elucidated by understanding current knowledge, concepts, and research; psychological perspective on these problems; how psychological perspective might be enlarged and extended in medical area. Through practical field placement, students apply knowledge acquired in class to research observation and/or clinical work in field. S/U or letter grading.

421. Research in Social Psychology. (2) Discussion, two hours; reading and group work, four to six hours. Preparation: successful completion of departmental qualifying examinations and research experience. S/U or letter grading.

423. Social Survey Research Practicum. (4) Practicum, two hours; additional hours to be arranged. Methods of survey sampling, conduct and management of computer-assisted telephone interview surveys. S/U or letter grading.

450. Internship in Psychological Clinical Practice. (1 to 12) Fieldwork, to be arranged. Preparation: successful completion of departmental qualifying examinations. S/U or letter grading.


509. Research for PhD Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: successful completion of qualifying examinations. One 599 course is required each year following completion of qualifying examinations. S/U grading.

PUBLIC AFFAIRS
Interdisciplinary Minor
Meyer and Renee Luskin School of Public Affairs
3357H Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656

Public Affairs Minor
310-206-8966

E-mail contact
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Faculty Committee
Alfreda P. Iglehart, PhD (Social Welfare)
Jorja J. Leap, PhD (Social Welfare)
Michael C. Lens, PhD (Urban Planning)
Anastasia Loukaitou-Sideris, PhD (Urban Planning)
Aaron L. Panofsky, PhD (Public Policy, Society and Genetics, Sociology)
Sarah J. Reber, PhD (Public Policy)

Scope and Objectives
The Public Affairs minor teaches undergraduates the 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 Policy 10A with a grade of B or better. For more information, contact the program director/counselor by e-mail.

Required Core Courses (8 units): Public Policy 10A and one course from 10B, C101, 102, C119, 125, Honors Collegium 82, Social Welfare 191, Urban Planning 120, 121 or, by petition only, another applied policy course. Highly recommended: one statistics and one microeconomics course.

Required Upper-Division Courses (20 units): (1) Three courses from one of the following clusters: (a) gender and multiculturalism cluster—Public Policy M120, Social Welfare 101, M104C, Urban Planning 141, M175; (b) labor and work cluster—Public Policy 141, 145, 148; (c) policy studies cluster—three upper-division public policy lecture/seminar courses (191A may be repeated for credit with topic change); (d) social welfare cluster—three upper-division
social welfare lecture courses (fieldwork and internship courses such as Social Welfare 130A and 130B may not be applied); (e) urban policy and planning cluster—three upper-division urban planning lecture courses (129 may be repeated for credit with topic change); or (f) by petition, a cluster of upper-division policy courses proposed by the student; (2) one elective course offered by the Luskin School of Public Affairs not used to satisfy the core or cluster requirement; (3) capstone project to be completed during the senior year that may be satisfied by one of the following: (a) Public Policy 187, (b) Political Science M191DC or M194DC, (c) Civic Engagement 10SSL, or (d) by petition another upper-division applied policy course that requires a substantial term paper.

Fieldwork and internship courses, such as Social Welfare 130A, 130B, and Urban Planning M165, may not be applied toward the minor. No more than three of the cluster and elective courses may be from a single department, and no more than two may be from outside the school.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

PUBLIC AFFAIRS SCHOOLWIDE PROGRAMS
Meyer and Renee Luskin School of Public Affairs
3357H Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656
Public Affairs Major
310-206-8966
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Faculty Committee
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Michael C. Lens, PhD (Urban Planning)
Lené F. Levy-Storms, MPH, PhD (Geriatrics, Social Welfare)
Aaron L. Panofsky, PhD (Public Policy, Sociology and Genetics, Sociology)
Meredith Phillips, PhD (Public Policy, Sociology)
Michael A. Stoll, PhD (Public Policy, Urban Planning)

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.

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
- Application of theoretical knowledge and analytical methods to an experiential learning capstone
- Effective communication with collaborators, policymakers, and/or the public

Admission
Students must petition 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.

Public Affairs Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Public Affairs premajor at the time they apply for admission are automatically admitted to the premajor.

The Public Affairs major includes eight lower-division courses and ten upper-division courses. Students identified as Public Affairs premajors will have the opportunity to formally petition 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 prerequisites for upper-division coursework.

Current UCLA students need to file a petition in the Luskin School of Public Affairs Undergraduate Advising Office. All students are identified as Public Affairs premajors until they satisfy the following minimum requirements: 1) achieve grades of C or better in all lower division course requirements, 2) file a petition to declare the major once they have completed 45 letter-graded units at UCLA by the end of Summer Session A but before completing 135 units, and 3) submit any additional admissions information to department committee in charge.

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 academic achievement. Transfer credit is subject to department approval. Consult an undergraduate counselor before enrolling in any courses for the major. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: (1) Two theory courses selected from Public Affairs 110, 111, 112, 113, 114; (2) both research methods courses Public Affairs 115, 116; (3) three-semester 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. (8) Lecture, three hours; discussion, one hour. Introduction to social scientific approaches to study of social problems and their solutions. Using selected contemporary social problems as cases, and drawing on variety of sources (such as scholarly readings, video clips, and guest speakers), exploration of how social problems and their solutions come to be defined, roles that economic, political, educational, and cultural institutions play in perpetuating or solving social problems, and how individuals, social advocates, and communities can lead or impede social change. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

60. Using Data to Learn about Society: Introduction to Empirical Research and Statistics. (8) 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.

80. How Environments Shape Human Development. (4) Lecture, four hours; discussion, one hour. Overview of major theoretical, conceptual, and empirical traditions in study of human development. Exploration of how diverse cultural, social, socioeconomic, and historical contexts interact with biological, cognitive, and psychological processes to affect individuals during key developmental periods (such as early childhood, childhood, adolescence, early adulthood, and late adulthood). Topics may include historical changes in families, schools, neighborhoods, and workplace; economic conditions of families, schools, and neighborhoods; enduring effects of childhood on adult well-being; and impact of ascribed characteristics such as gender, race, and nationality on individuals' environments, pathways, and outcomes. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

110. Urban Revolution: Space and Society in Global Context. (4) Lecture, four hours. Examination of potentials and challenges of 21st-century urban revolution in global context. Introduction of theoretical frameworks and conceptual methods used by urban studies and planning to study cities and urban transformations, and historical and contemporary analysis of urbanization to learn about key urban 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 to key theories of space and utopian visions of urbanism. Letter grading.

120. Urban Poverty and Public Policy. (4) Lecture, three hours. Exploration of how neighborhoods characterized by concentrated poverty affect urban residents. Evaluation of relative efficacy of various public policies that aim to improve life chances 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.

Thomas H. Rice, PhD (Health Policy and Management)

Scope and Objectives

The Public Health minor is designed for students who wish to learn more about core public health functions, including the assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities, the formulation of public policies designed to solve identified local and national health problems and priorities, the assurance that all populations have access to appropriate and cost-effective care, and the evaluation of the effectiveness of that care.

Undergraduate Study

Public Health Minor

To enter the Public Health minor, students must be in good academic standing with an overall grade-point average of 2.0 or better, have completed 90 or more units, and apply to the Fielding School of Public Health Student Affairs Office, A1-269 Center for Health Sciences. Enrollment is competitive and based on grade-point average and an application essay.

Required Upper-Division Courses (28 units): Seven courses, including Biostatistics 100A, Community Health Sciences 100, Environmental Health Sciences 100, Epidemiology 100, Health Policy and Management 100, Public Health 150 (must be taken during the first term of enrollment in the minor), and one elective course to be selected from Biostatistics 100B, Community Health Sciences 91, 130, 132, M140, 180, 181, Health Policy and Management M110, C121, Public Health 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 Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Fielding School of Public Health offers two schoolwide degrees, Master of Public Health (MPH) and Doctor of Public Health (DrPH); and MS and PhD degrees in Biostatistics, Community Health Sciences, Environmental Health Sciences, Epidemiology, and Health Policy and Management. An undergraduate minor in Public Health is also offered.

One interdisciplinary 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 MPR, 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 Minor

Public Health Schoolwide Programs

Jonathan and Karin Fielding School of Public Health

A1-269 Center for Health Sciences

Box 951772

Los Angeles, CA 90095-1772

Public Health

310-825-5524

Scope and Objectives

The profession of public health is responsible for the protection, preservation, and promotion of the health of communities and populations. Although the health problems of today differ from those of the past and of the future, the professionals who make up the field need to be trained to respond to broad community problems utilizing the basic ideas of prevention of disease and promotion of well-being. This goal can be achieved only with an understanding of the health status of the population through data gathering and analysis, as well as knowledge of the complex relationships between disease process in the social and biological environment of the community.

The field of public health today needs practitioners from many disciplines. Candidates for graduate study may come from a wide variety of academic backgrounds, training, or experience, including both the natural and social sciences.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

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99. Student Research Program. (1 to 2) Tutorial (su-
pervised research or other scholarly work), three hours
per week per unit. Enrolment 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 Under-
graduate Research Center. May be repeated. P/NP
grading.

Upper-Division Courses
M106. Health in Chican/o Latino Population. (4)
(Same as Chicana and Chicano Studies CM106.)
Lecture, four hours; discussion, one hour. Designed
for juniors/seniors. Examination of Chican/o Latino
health status through life expectancy, causes of death,
reportable diseases, services utilization, provider
supply, and risk behaviors within demographic/immig-
rion changes. Binational review of health effects in

150. Contemporary Health Issues. (4) Lecture,
four hours. Designed for juniors/seniors. Exploration of na-
tion’s health challenges, epidemiologic basis of
public health, organization and financing of health
services in the U.S. and elsewhere, and current strat-
egies for advancing people’s health. Letter grading.

M151. Healthcare in Transitional Communities. (4)
(Same as Sociology M142.) Lecture, three hours; dis-
cussion, one hour. Analysis of social, cultural, eco-
nomic, and political processes affecting organization
and accessibility of healthcare in transitional and dis-
advantaged 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 achieve-
mint, career, and family. Lectures by faculty and
practitioners, discussion groups, and field activities
including health education. P/NP or letter grading.

Graduate Courses
M273. Responsible Conduct of Research in Global
Health. (2) (Same as Epidemiology M273.) Lecture,
two hours. Requisite: Community Health Sciences
200. Introduction to fundamental principles of public
health ethics, current ethical procedures, guidelines,
and requirements, and ethical issues facing public
health professionals working in developing countries.
History of public health issues, unique ethical issues of
research in developing countries, analysis of ethical
implications of informed consent, responsibility to
study community, mechanisms of study approval, role
of funders, and role and responsibilities of review
boards. S/U or letter grading.

299. Strategies for Success for Doctoral Students.
(2) Seminar, two hours. Interactive seminar, with focus
on research process, tips for success in academia,
and important tools for leadership designed for all
doctoral students in School of Public Health. S/U
grading.

475. Pedagogy: Essential Skills and Innovative
Strategies. (2) Seminar, two hours. Designed for
School of Public Health doctoral students. Interac-
tive 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 com-
petencies-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 pre-
sentations 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 assis-
tants for courses in Fielding School of Public Health.
Study of methodologies in teaching public health, in-
cluding implementing active learning strategies, effec-
tively communicating goals for student learning, de-
veloping course materials that are consistent with ex-
pectations for student learning, creating inclusive
teaching environment, and dealing with difficult situa-
tions. S/U grading.

**PUBLIC POLICY**

*Meyer and Renee Luskin School of Public Affairs*

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Los Angeles, CA 90095-1656

Public Policy
310-825-7667
Department e-mail

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Emily K. Weisburst, PhD

Lecturer SOE
Kenya L. Covington, MCP, PhD

Lecturers
Michelle Dennis, MPA, CPFO
Rick Tuttle, PhD

Visiting Professor
Michael S. Dukakis, JD

**Scope and Objectives**

The Department of Public Policy is an interdisci-
plinary unit composed of faculty members from
various disciplines, some of whom hold joint
appointments in other UCLA depart-
ments. Its goal is to foster an understanding of
the theory and practice of public policy in the
many fields in which it applies. Examples in-
clude education, health care, unemployment
and training, drug policy and crime, economic
development, national security, and the envi-
ronment. 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 microeco-
nomics, 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 Ander-
son 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 fa-
miliarizes students with key issues in public
policy. Both programs have a heavy applied
orientation. For additional information on the
minor, see Public Affairs Schoolwide Pro-
grams in this chapter.

**Graduate Study**

Official, specific degree requirements are de-
tailed in program requirements for UCLA
graduate degrees, available at the Graduate
Division website. In many cases, more detailed
guidelines may be outlined in announcements,
other publications, and websites of the schools,
departments, and programs.

**Graduate Degree**

The Department of Public Policy offers the
Master of Public Policy (MPP) degree. Five
concurrent degree programs (Public Policy
MPP/Law JD, Public Policy MPP/Management
MBA, Public Policy MPP/Medicine MD, Public
Policy MPP/Public Health MPH, and Public
Policy MPP/Social Welfare MSW) are also
offered.

**Public Policy**

*Lower-Division Courses*

10A. Introduction to Public Policy. (5) Lecture,
three hours; workshops and outside study, three hours.
Overview of principal topics of contemporary policy
develop new quantitative or social science methodologies to analyze such questions, but to enhance their critical thinking skills. Letter grading.

104. Culture and Political Structure of Los Angeles. (4) Lecture, three hours; outside study, nine hours. Exploration of two pieces of the puzzle in modern urban life: the different communities that live here (and in most other major cities) and political structure that binds us all together. Who are the communities that live here? Who defines and how do we define ourselves and develop leaders? How does integration into mainstream take place? What is “mainstream” today? How does political structure help or impede the notion of a “mainstream”? Letter grading.

105. Leadership in Public Interest. (4) Lecture, three hours. Examination of prevailing models, theories, and practices of leadership in public settings and application of them through case studies, films, and situational articles. Participation in group projects and discussions designed to improve understanding of role of leadership in mobilizing people groups to do difficult work. Introduction to literature and theory on leadership, evaluation of leadership and group dynamics, and challenge of leadership in times of stress and change. Letter grading.

112. Controversies in Education Policy. (4) Lecture, three hours; outside study, nine hours. Focus on several upper-tier topics in the field of education policy. Requisites vary each year and include multiculturalism, affirmative action, test score gap, bilingual education, and school choice. Introduction to major arguments that underlie policy debates and to current educational policies and to encourage students to critically evaluate logic and evidence behind these policies. Letter grading.

113. Politics of U.S. Health Policy. (4) Lecture, three hours. Every modern nation faces similar health system challenges, such as promoting health and longevity, providing effective treatments, balancing benefits and burdens, and controlling healthcare costs that grow faster than national income. U.S. seems uniquely disadvantaged with lower life expectancy, problematic quality of medical services, lack of insurance for millions, and highest costs in world, hampering families, businesses, and government. What political dynamics produced this result and influence possibility and direction of ongoing policy change? Examination of meaning of health and healthcare; international experience; current status, organization, and financing of U.S. healthcare system; and factors that affect national health policymaking, including comparative healthcare reform; framing of problems, role of public opinion, influence of interest groups, composition and organization of Congress, and opportunities for and applications of presidential leadership. P/NP or letter grading.


C124. Budget Politics, Social Policy, and Entitlement Reform. (4) Lecture, three hours; outside study, nine hours. Examination of politics of public budgetary processes. Letter grading.
M149. California Sustainable Development: Economic Perspective. (4) (Same as Environment M135 and Urban Planning M163.) Lecture, three hours. Examination of specific environmental challenges that California faces. Microeconomic perspective used, with an emphasis on incentives of policy makers 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.

CM182. Science, Technology, and Public Policy. (4) (Same as Electrical and Computer Engineering CM182.) Lecture, three hours. Recent and continuing advances in science and technology are altering profoundly important public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects. Concurrently scheduled with course CM282. Letter grading.

187. Research Seminar: Public Policy. (4) Seminar, three hours; outside study, nine hours. Requisite: course 10A. Limited to and required of seniors in Public Affairs minor. Production of research project that examines in depth one particular policy issue in its social context, including political pressures involved and problems of implementation. Emphasis on skills of research and analysis, conceptualization, and written analysis and presentation. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Variable Topics Research Seminars: Public Policy. (4) Seminar, three hours; outside study, nine hours. Examination of particular subfields of policy studies (e.g., international policy, crime policy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and development of culminating project. Must be taken for credit if applied toward Public Affairs minor. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics Research Seminars: Public Policy. (3) Seminar, three hours; outside study, six 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.

191C. Variable Topics Research Seminars: Public Policy. (3) Seminar, three hours; outside study, two 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.

191D. Variable Topics Research Seminars: Public Policy. (4) Lecture, three hours; outside study, two 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.

190A. Marschak Colloquium: Social Sciences. (2) Seminar, two hours. Limited to undergraduate students. Attendance at biweekly Marschak Colloquium presentations, highly regarded and long-standing interdisciplinary lecture series given by leading social scientists. Designed to provide context of topics and research models in behavioral sciences. Letter grading.

197. Individual Studies in Public Policy. (2 or 4) Tutorial, four hours. Preparation: 3.0 grade-point average. United to individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and transforming 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-term sequence (see course 204) to prepare students for economic analysis of public policy, with review of economic principles and basic microeconomic theory and applications of consumer theory and demand, producer theory and supply, equilibrium of product and factor markets. Letter grading.

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 governance from organized interests to legislatures, bureaucracies, and courts. Letter grading.

203. Statistical Methods of Policy Analysis I. (4) Lecture, three hours; outside study, nine hours. First course in two-term sequence (see course 208). Review of statistical principles useful to policy research and analysis. Topics include descriptive statistics, expectation, univariate distribution, probability, covariance and correlations, statistical independence, 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 201 in two-term sequence (see course 201) covering both theory and policy applications. Topics include monopoly, factor markets, general equilibrium, welfare economics, externals, public goods, uncertainty, and intertemporal 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.

207. International Political Economy. (4) Lecture, three hours; outside study, nine hours. Examination of political, legal, and social institutions to show how the U.S. fits in among varieties of modern capitalism and business/government relations. Analysis of domestic policy options nations are pursuing in response to economic globalization, protectionism, mercantilism, and deregulation. Introduction to international coalitions being formed, including NAFTA, and to nongovernmental organizations created to deal with special problems such as global environmental crisis. Letter grading.


210. Seminar in Management in the 21st Century. (4) Lecture, three hours; outside study, nine hours. Focus on practical management skills to prepare students for workplace. Examination of design, management, and leadership systems in organizations. Focus on decision-making strategies in face of challenges, and negotiation as invariable skill. Examples from public and private sectors, as well as experiential learning through exercises. Letter grading.

211. Methods of Policy Analysis. (4) Lecture, three hours; outside study, nine hours. Preparatory course that precedes three-term 298A, 298B, 298C sequence in which students 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 core courses. Letter grading.

212. Child Welfare Policy. (4) (Same as Social Welfare M290J.) Lecture, three hours. Development of social policy as it affects families and children from different cultural backgrounds and as it is formed in government child welfare systems. Evaluation 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 M290K.) Lecture, three hours. Examination of evolution of social policy and services for mentally ill, with emphasis on political, economic, ideological, and sociological factors that affect views of mentally ill and services they are provided. S/U or letter grading.

214. Poverty, Poor, and Welfare Reform. (4) (Same as Social Welfare M290L and Urban Planning M246.) Lecture, three hours. Major policy and research issues concerning poverty and social welfare are directed toward poor in U.S. 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 legal, social, and mental health arenas. S/U or letter grading.
M218. Research Design and Methods for Social Policy. (4) (Same as Urban Planning M204.) Lecture, three hours; outside study, nine hours. Limited to graduate students. How to become more sophisticated consumers and producers of qualitative and quantitative policy research. In first half of course, formal principles of research design; in second half, various data collection methods, including ethnography, interviewing, and survey design. Letter grading.


M220. Transportation, Land Use, and Urban Form. (4) (Same as Urban Planning M250.) Lecture, three hours. Historical evolution of urban form and transportation systems, intrametropolitan location theory, recent trends in urban form, spatial mismatch hypotheses, job-housing balance, transportation in strong central city and polycentric city, neotraditional town planning debate, rail transit and urban form. Letter grading.

M221. Travel Behavior Analysis. (4) (Same as Urban Planning M253.) Lecture, three hours. Requisites: courses 215 and 255, or equivalent; courses 207 and 220B. Descriptions of travel patterns in metropolitan areas, recent trends and projections into future, overview of travel forecasting methods, trip generation, trip distribution, mode choice, assignment, criteria of traditional travel forecasting methods and new approaches to travel behavior analysis. Letter grading.

M222. Transportation Economics, Finance, and Policy. (4) (Same as Urban Planning M255.) Lecture, three hours. Overview of transportation finance and economics; concepts of efficiency and equity in transportation finance; historical evolution of highway and transit funding issues in high-income countries; 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.

M223. Transportation and Environmental Issues. (4) (Same as Urban Planning M258.) 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 standards; vehicle inspection and maintenance issues; transportation demand management; 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.

M224A. Introduction to Geographic Information Systems. (4) (Same as Urban Planning M206A.) Lecture, three hours; laboratory, one hour. Preparation: one graduate-level statistics course, familiarity 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, data manipulation, spatial analysis, overlay analysis, spatial autocorrelation. Use of maps for spatial analysis to address planning problem. Letter grading.

M224B. Advanced Geographic Information Systems. (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, a map design, and spatial analysis. Letter grading.

225. Education Policy and Education Inequality. (4) Seminar, three hours; outside study, nine hours. Limited 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 or teacher quality, parenting and preschool interventions, and supplemental educational services. Letter grading.


M227. Politics, Power, and Philanthropy. (4) (Same as Social Welfare M290S and Urban Planning M287.) Lecture, three hours; outside study, nine hours. Use of political economy perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

M228. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Social Welfare M290X and M288.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Various patterns of community action for attaining social welfare objectives; research and development; social planning and social problems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

M229. Law and Management of Nonprofit Organizations. (4) (Same as Management M225.) Lecture, three hours. Introduction to important legal, financial, and management issues facing nonprofit organizations. Topics include how to start nonprofit tax-exempt organizations, qualifying and maintaining tax-exempt status under IRC Code Section 501(c)(3), corporate governance and legislative activity, contracts and restrictions, and strategic planning, fundraising, non-profit accounting, and employment law. S/U or letter grading.

M233. Employment Issues: California Labor Standards. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Credit/no credit option available for undergraduate students. Concurrently scheduled with course C124. Lecture, three hours; outside study, nine hours. Survey of regional development, with special reference to “new economic geography” and its relevance for formulation of local economic development policies. Letter grading.

M234. Transportation Policy and Planning. (4) (Same as Urban Planning M255.) Lecture, three hours. Introduction to analysis, management, and operation of transportation systems. Topics include evaluation of transportation systems, performance, causes and management of traffic congestion, transportation systems and demand management, complete streets, goods movement, shipping, aviation, and high-speed rail policy and planning, public transportation, planning for elderly and disabled, and intelligent transportation systems. Letter grading.

M240. Theories of Regional Economic Development I. (4) (Same as Geography M203A and Urban Planning M239A.) 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.

M241. Introduction to Regional Planning. (4) (Same as Urban Planning M230.) Lecture, three hours. Critically examine theoretical survey of regional planning theory and practice, with particular emphasis on relations between regional planning and developments within Western social and political philosophy. Major concepts include regions and regionalism, territorial community, and social production of space. Letter grading.

M242. Regional Development, Urbanization, and Inequality. (4) Lecture, three hours; outside study, nine hours. Survey of regional development, with special reference to “new economic geography” and its relevance for formulation of local economic development policies. Letter grading.

M243. Community Development and Housing Policies: Roles of State, Civil Society, and Nonprofits. (4) (Same as Social Welfare M290U and Urban Planning M275.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Credit/no credit option available for undergraduate students. Concurrently scheduled with course C147. Lecture, three hours; outside study, nine hours. Role of U.S. housing policy and role of government agencies and community organizations. Is problem housing or economic development? Should intervention be directed toward inner city housing markets or through neighborhood strategies? What lessons can be learned from experiences of other countries? Letter grading.

M244. Transportation Policy and Planning. (4) (Same as Urban Planning M255.) Lecture, three hours. Introduction to analysis, management, and operation of transportation systems. Topics include evaluation of transportation systems, performance, causes and management of traffic congestion, transportation systems and demand management, complete streets, goods movement, shipping, aviation, and high-speed rail policy and planning, public transportation, planning for elderly and disabled, and intelligent transportation systems. Letter grading.

M245. Critical Policy Issues and Problems in Globalizing World. (4) Lecture, three hours; outside study, nine hours. Enables students to (1) think of world in dynamic terms, (2) be able to map, divide, and assemble world in many different ways, and (3) be able to articulate patterns, differences, and movement in world space and history. Concurrently scheduled with course C147. Letter grading.

M246. Electoral Democracy: Theory and Behavior. (4) (Same as Political Science M268B.) Seminar, three hours. Examination of both empirical and normative questions 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
M247. Strategic Planning for Public and Nonprofit Organizations. (4) (Same as Social Welfare M241F and Urban Planning M230.) Lecture; three hours; outside study, nine hours. Designed for graduate students. Technical processes of problem solving regarding social issues with problems at community level. This form of community practice fills a niche between professional and knowledge and skill set prevalent in agencies and program administrators on one hand and by policy analysts and policymakers on other. Letter grading.

M248. Toleration, Pluralism, and Diversity. (4) (Same as Political Science M216.) Seminar, three hours. Prior experience in political or legal theory helpful. Exploration of both abstract concepts of toleration and contemporary disputes. S/U or letter grading.

CM250. Environmental and Resource Economics and Policy. (4) (Same as Urban Planning M267.) Lecture, three hours. Requisites: courses 204 and 208, or Urban Planning 207 and 220B. Survey of ways economics is used to define, analyze, and resolve policy problems. Overview of theoretical questions addressed by environmental economists that bear on public policies. Concurrently scheduled with course C115. Letter grading.

251. Public Budgeting and Finance. (4) Lecture, three hours; outside study, nine hours. Limited to graduate students. How financial resources are allocated through budget processes at federal, state, and local levels of government in the U.S. and how each level of government finances its operations and capital investment programs, with particular attention to California. Students are organized into small groups to facilitate review of assigned readings and to report key ideas developed in assigned readings, development of budget strategy matrix outlining best practices budget strategies to use in various re sources. Prior experience in political or legal theory helpful. Letter grading.

M252. Introduction to Environmental Policy. (4) (Same as Urban Planning M263.) Lecture, three hours. Introduction to basic concepts and methods of environmental analysis covering variety of topics with cross-disciplinary perspectives. Development of ability to analyze major environmental and resource issues as well as to read, discuss, and write critically about environmental policy. Letter grading.

M253. Lesbian, Gay, Bisexual, and Transgender Law and Social Research. (4) (Same as Law M675.) Lecture, three hours. Exploration of relevance of public policy research to lesbian, gay, bisexual, and transgender (LGBT) legal issues. Topics include LGBT identity and demographics, legal recognition of same-sex couples, parenting, workplace discrimination, transgender rights, intersections of race and sexuality, LGBT youth and safe schools, LGBT health disparities, and Don’t Ask, Don’t Tell. Discussion of social science research that has informed various areas of LGBT law. Themes include doctrinal and other reasons why research has become more central to LGBT legal scholarship. First decade, different types of public policy research, limitations of current data and research on LGBT issues, difficulties in translating social science research into evidence in courtrooms, impact that dominant LGBT rights frame of equality has on social science research, challenges in conducting objective research, and effective presentation of social science research before legislators, judges, juries, media, and other audiences. S/U or letter grading.

M260. Foundations of Social Welfare Policy. (4) (Same as Social Welfare M221A and Urban Planning M241.) Lecture, two hours; discussion, one hour; outside study, nine hours. Historical, theoretical, and historical roots of welfare institutions in different societies; applicable social system theory of different components of welfare system; theory and research about welfare policies and organizational forms. S/U or letter grading.

M266. Advanced Topics in Health Economics. (4) (Same as Health Policy M249E.) Seminar, four hours. Requisites: Health Policy 200A, 200B, M236. Advanced treatment of number of topics in health economics, including mental health economics, pharmaco- cetical economics, and relationships between labor supply, welfare, and health. Letter grading.

M267. Medicare Reform. (4) (Same as Health Policy M252.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and managerial tools to analyze Medicare problems with existing Medicare program and to develop specific options for reforming features of program to accommodate changing pressures generated by retirement of baby-boom generation. Letter grading.

M268. Microeconomic Theory of Health Sector. (4) (Same as Health Policy M236.) Lecture, four hours; discussion, two hours. Preparation: intermediate microeconomics. Requisites: Biostatistics 100A. Microeconomical aspects of healthcare system, including health manpower substitution, choice of efficient modes of treatment, market efficiency, and competition. Letter grading.

M269. Healthcare Policy and Finance. (4) (Same as Health Policy M269.) Seminar, three hours; outside study, nine hours. Exploration of demand for health insurance and supply of medical care (Medicaid and Medicare), uninsured, and health insurance reform. Examination of effects of managed care on health and costs, consumer protection movement, and rise of competitive health. Letter grading.


271. Urban Poverty, Workforce Development, and Public Policy. (4) Lecture, three hours; outside study, nine hours. Limited to graduate students. Examination of how urban labor markets function, particularly low-skill labor markets, and exploration of how public and private interventions affect outcomes for disadvantaged urbanites. In first half of course, major theories of low-skill workers’ labor market problems in employment and wages; in second half, employment and training programs, policy initiatives and implementation, and directions in workforce development. Letter grading.

M280A. Research and Development Policy. (4) (Same as Management-PhD M251.) Lecture, three hours. Examination of research and development as process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing of and forecasting technological futures. S/U or letter grading.

M280B. Growth, Science, and Technology. (4) (Same as Management M232B.) Lecture, three hours. Examination of the latest advances in science and technology, and actions of maximizing innovators and factors impinging on their behavior. How technological breakthroughs (or discontinuities) can influence new industries or transform nature of and population of innovators. S/U or letter grading.

M281. Political Environment of American Business. (4) (Same as Management M293A.) Lecture, three hours. Examination of the politics, ethics, and interests that have come to be expected of American business, especially as they influence business enterprise. S/U or letter grading.

CM282. Science, Technology, and Public Policy. (4) (Same as Electrical Engineering CM282.) Lecture, three hours. Recent and continuing advances in science and technology are raising profoundly important public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, political, economic, scientific, and technological aspects. Concurrently scheduled with course CM182. Letter grading.

M289A-M289B. Inequality, Racial Change, and Education in 21st-Century Metropolis. (4–4) (Same as Education M289A-M289B, Political Science M287A-M287B, and Sociology M290A-M290B.) Seminar, five hours; outside study, nine hours. Examination 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 opportunities linked to urban structure in society facing unprecedented demographic change that will end primarily European domination of our society by mid-century, creating democracy without majority. How this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, breakthroughs, and reorganization 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. Special Topics in Public Policy. (4) Discussion, three hours. Advanced seminar on emerging issues in public policy. May be repeated for credit. Letter grading.

M293. Privatization, Regulation, and Public Finance. (4) (Same as Urban Planning M243.) Lecture, three hours; outside study, nine hours. Requisite: course 201. Examination of economic and political determinants of trend toward privatizing public services, and equity and efficiency outcomes of this trend as expressed through new pricing, tax/subsidy, and service-level policies. Exploration of new regulatory role this trend implies for state and local governments. Letter grading.

294. Education Markets and Education Policy. (4) Lecture, three hours. Designed for graduate students. Study of major income-maintenance programs in U.S., with emphasis on interaction of moral attitudes toward poor and structure and implementation of law, policy, and administration. Current reform consensus and major reforms. Letter grading.

M297. Innovation: Policy Implications in Behavioral Sciences. (2) Seminar, two hours. Limited to graduate students. Students attend biweekly Marschak Colloquium presentations given by leading social science experts. Analysis and discussion of lecture topics and research models in behavioral sciences in this highly regarded and long-standing interdisciplinary lecture series that meets separately from other graduate seminars. S/U grading.

297B. Introduction to Public Policy. (2) Lecture, three hours; discussion, one hour. Designed for graduate students. Introduction to purposes and methods of public policy analysis. Exposure to key concepts and tools, such as market failures, decision analysis, cost/benefit analysis, group behavior, and implementation. Case studies supplement lectures and texts. S/U grading.
of Molecular and Cellular Oncology
Percy P. Lee, MD, Vice Chair, Education
Steve P. Lee, MD, PhD, Vice Chair, VA Services

Scope and Objectives
The Department of Radiation Oncology includes clinical divisions at the UCLA Medical Plaza and Reagan UCLA Medical Center, Santa Monica-UCLA Medical Center, and West Los Angeles VA Medical Center and includes the Division of Brachytherapy, Division of Molecular and Cellular Oncology, and Medical Radiation Physics. Laboratory, clinical, and translational research are facilitated at all locations.

The primary clinical mission of the department is the management of patients who have cancer. The purpose of using radiation therapy, rather than or in addition to surgery, is to preserve function and/or cosmesis while eliminating the cancer. Other activities include total body irradiation before bone marrow transplantation, stereotactic body radiotherapy, brachytherapy, and stereotactic radiosurgery for A-V malformations, meningiomas, and malignant intracranial lesions. Research interests include clinical trials, radiation biology, radiation modifiers, molecular biology, immunology, and applied physics. Knowledge of the disease in question, the comparative efficacy of radiation therapy and other methods, radiation biology and pathophysiology, and the physical characteristics of various radiations is essential.

The educational programs serve medical, dental, basic science (biology and physics), nursing, and radiation therapy students, and community and postgraduate physicians; there also is a four-year program for residents who are qualifying for certification in radiation oncology by the American Board of Radiology.

For more details on the Department of Radiation Oncology and courses offered, see the department website.

Radiation Oncology

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. 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. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

RADIOLOGICAL SCIENCES

David Geffen School of Medicine
1638 Ronald Reagan Medical Center
Box 957351
Los Angeles, CA 90095-7351

Radiological Sciences
310-267-8797, Residency Program
Residency e-mail
310-267-8796, Fellowship Program
Fellowship e-mail

Dieter R. Enzmann, MD (Leo G. Rigler Professor of Radiological Sciences), Chair
Robert D. Suh, MD, Vice Chair, Education

Scope and Objectives
The medical student program in the Department of Radiological Sciences is designed to introduce students to the spectrum of diagnostic imaging modalities and their role in the clinical management of patients. It provides students with knowledge of essential radiographic anatomy and key imaging features of common diseases. The basic principles of all forms of diagnostic imaging pertaining to thoracic, musculoskeletal, gastrointestinal, genitourinary, cardiac, neuroradiology, mammography, pediatrics, emergency radiology, computed tomography, magnetic resonance imaging, ultrasound, and interventional radiology are provided. Students acquire interpretative skills by didactic instruction and interactive teaching sessions and through the use of Web-based teaching materials. A longitudinal core clerkship is offered during the third year, with a comprehensive examination.

Greater depth of experience is provided by the three weeks of elective clerkship offered to fourth-year medical students that emphasizes training in general diagnostic radiology, angiography/interventional radiology, neuroradiology, and pediatric radiology.

For more details on the Department of Radiological Sciences, see the department website.

RELIGION, STUDY OF

Interdepartmental Program
College of Letters and Science
378 Humanities Building
Box 95111
Los Angeles, CA 90095-1511

Study of Religion
310-206-8799

Carol A. Bakhos, PhD, Chair

Faculty Committee
Carol A. Bakhos, PhD (Near Eastern Languages and Cultures)
William M. Bodfish, PhD (Asian Languages and Cultures)
John P. Caniero, PhD (Near Eastern Languages and Cultures)
Michael D. Cooperson, PhD (Near Eastern Languages and Cultures)
Preparation for the Major

Required: Study of Religion M4 or 11, and two courses from Ancient Near East 10W, Anthropology 3, Asian M60, History 1A, 1B, 1C, 9A, 9C, 9D, 9E, M10A, 10B, 11A, 11B, Philosophy 2, 21, Study of Religion M10, M50, M60A through M60E, M60W, M61, M61W.

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: (1) 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 if 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.


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 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 adviser may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
Study of Religion

Lower-Division Courses

M4. Introduction to History of Religions. (5) (Same as History M4.) Lecture, three hours; discussion, two hours. Concentrate major historical periods and 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, analyzing, and comparatively and critically analyzing events of human phenomena identified as religious, such as sacred texts, artifacts, and persons who have experienced religious phenomena. May be repeated for credit. 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. Survey of major monotheistic traditions of Western cultures—Judaism, Christianity, and Islam—historically and comparatively. Development, teachings, and ritual practices of each tradition up to and including medieval period. Composition and development of various sacred texts, highlighting key themes and ideas within different historical and literary strata and traditions. For credit to students with credit for course M50W. Knowledge of Asian languages not required. General survey of religious life in China, with emphasis on the historical, philosophical, and social contexts. Critical consideration of changing and contested meanings of religion and its relationship to science and magic, as well as to other domains of social experience. Examination 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. Baha’i Faith in Iran: Historical and Sociological Survey. (4) (Same as Islamic M105A.) Lecture, three hours. Readings in English. Rise and development of Bab and Baha’is in contexts of 19th century Iran. Focus on personalities of Bab, Baha’u’llah, and ‘Abdu’ll-Baha. P/NP or letter grading.

M105B. Baha’i Faith in Iran: Survey of Baha’i Scriptures and Thought. (4) (Same as Islamic M105B.) Lecture, three hours. Readings in English. Analysis of major writings by Bab, Baha’u’llah, and ‘Abdu’ll-Baha. Emphasis on mystical and social principles. May be taken independently for credit. P/NP or letter grading.

M105C. Baha’i Faith in Iran: 20th-Century Iran and the Baha’is. (4) (Same as Islamic M105C.) Lecture, three hours. Readings in English. Focus on history of 20th-century Iran beginning with constitutional revolution and development of Baha’i community, and latter’s relation to reform movements in Iran. May be taken independently for credit. P/NP or letter grading.

M106A. Premodern Islam. (4) (Same as History M106A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of early development of Islam with special attention to doctrine of nature of human, responsible for actions, revelation and religious authority, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/NP or letter grading.

M107. Islam in West. (5) (Same as Arabic M107 and Islamic Studies M110.) Lecture, three hours; discussion, one hour. Acquisition of understanding of basic doctrines and practices of Islam. Survey of history of Islam in West, with focus on U.S. and France. Analysis of issues relevant to growth and development of selected Muslim communities in West. Exposure to diverse expressions of Islam through independent research. Muslim communities and institutions in U.S. Development of strong analytical writing and speaking skills. P/NP or letter grading.

M108. Qur’an. (4) (Same as Arabic M108.) Lecture, three hours. How Qur’an as scripture shapes Muslim doctrine, beliefs, and culture. Three-hundred-year history Muslims have determined interpretations and applications of Qur’anic doctrines and prescriptions. Critical evaluation and analysis of contemporary discourses on Islam. Letter grading.

M109. Introduction to Islam. (5) (Same as Islamic Studies M110.) 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 charity; reform and modernism. P/NP or letter grading.

M110. Religion and Violence. (4) (Same as Religion M110.) Seminar, three hours; discussion, one hour. Exploration of religious beliefs and practices that underlie violence and terrorism. May be repeated for credit. P/NP or letter grading.


Upper-Division Courses

101. History of Study of Religion. (4) Lecture, four hours. Recommended prerequisite: 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 religion and its relationship to science and magic, as well as to other domains of social experience. Examination 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. Baha’i Faith in Iran: Historical and Sociological Survey. (4) (Same as Islamic M105A.) Lecture, three hours. Readings in English. Rise and development of Bab and Baha’is in contexts of 19th century Iran. Focus on personalities of Bab, Baha’u’llah, and ‘Abdu’ll-Baha. P/NP or letter grading.

M105B. Baha’i Faith in Iran: Survey of Baha’i Scriptures and Thought. (4) (Same as Islamic M105B.) Lecture, three hours. Readings in English. Analysis of major writings by Bab, Baha’u’llah, and ‘Abdu’ll-Baha. Emphasis on mystical and social principles. May be taken independently for credit. P/NP or letter grading.

M105C. Baha’i Faith in Iran: 20th-Century Iran and the Baha’is. (4) (Same as Islamic M105C.) Lecture, three hours. Readings in English. Focus on history of 20th-century Iran beginning with constitutional revolution and development of Baha’i community, and latter’s relation to reform movements in Iran. May be taken independently for credit. P/NP or letter grading.

M106A. Premodern Islam. (4) (Same as History M106A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of early development of Islam with special attention to doctrine of nature of human, responsible for actions, revelation and religious authority, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/NP or letter grading.

M107. Islam in West. (5) (Same as Arabic M107 and Islamic Studies M110.) Lecture, three hours; discussion, one hour. Acquisition of understanding of basic doctrines and practices of Islam. Survey of history of Islam in West, with focus on U.S. and France. Analysis of issues relevant to growth and development of selected Muslim communities in West. Exposure to diverse expressions of Islam through independent research. Muslim communities and institutions in U.S. Development of strong analytical writing and speaking skills. P/NP or letter grading.

M108. Qur’an. (4) (Same as Arabic M108.) Lecture, three hours. How Qur’an as scripture shapes Muslim doctrine, beliefs, and culture. Three-hundred-year history Muslims have determined interpretations and applications of Qur’anic doctrines and prescriptions. Critical evaluation and analysis of contemporary discourses on Islam. Letter grading.

M109. Introduction to Islam. (5) (Same as Islamic Studies M110.) 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 charity; reform and modernism. P/NP or letter grading.

M110. Religion and Violence. (4) (Same as Religion M110.) Seminar, three hours; discussion, one hour. Exploration of religious beliefs and practices that underlie violence and terrorism. May be repeated for credit. P/NP or letter grading.

M132. Ancient Egyptian Religion. (4) Same as Ancient Near East M130. 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/NonP or letter grading.

M133. Bible and Qur’an. (4) Same as Middle Eastern Languages and Cultures M133. Lecture, three hours; discussion, one hour. Qur’an to familiarize students with content of scriptures of Judaism, Christianity, and Islam, and sociocultural background from which these multifaceted 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/NonP or letter grading.

M135. Religion in Ancient Israel. (4) Same as Ancient Near East M135. Lecture, three hours. Introduc- tory survey of various ancient Israelite religious beliefs and practices, their origin, and development, with special attention to diversity of religious practices in ancient Israel and Canaan during 1st millennium BCE. P/NonP or letter grading.

140. Undergraduate Seminar: Study of Religion. (4) Seminar. Interdisciplinary approach to some major topics in study of religion, such as religion and politics, mysticism, ideas of revelation, myth and religion, worship and ritual. May be repeated for credit with consent of instructor. P/NonP or letter grading.

M142C. History of Religion in U.S. (4) Same as History M142C. Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of religious dimension of people’s experience in U.S. Examination of number of religious traditions that have been important in this country, with emphasis on relating developments in religion to other aspects of American culture. P/NonP or letter grading.

150. Women, Gender, and Religion. (4) Lecture, four hours. Investigation and consideration of roles, status, and presentations of women and gender in one or more religious traditions. Examination of how cultural conceptions of gender as well as social realities (as far as they can be known) for women and men in particular religious traditions have been shaped by these religious traditions, including discussions regarding ritual practices, spirituality, sexuality, sexual renunciation, religious authority, marriage and family life, female body, public life, liter- ary representations of gender (including those of divine). Variety of approaches to be employed, including feminist, literary, historical, sociological, and anthropological. P/NonP or letter grading.


160. Religion, Film, and Media. (4) Lecture, four hours. Examination of complex relationship between religious traditions and various media (e.g., print, film, photography, television, radio, and electronic) as they have intersected in specific historical and cultural contexts. Illumination of role of media in forming and expressing religious beliefs, practices, and identities. Topics may include representations of religious groups, visual and aural piety, identity formation, inter- religious conflict, religious education, and use of media to forge new religious agendas or to proselytize purposes. Historical, sociological, and anthropolog- ical approaches used in concert with various method- ologies current within media studies. P/NonP or letter grading.

M161A. Chinese Buddhism. (4) Same as Chinese CM160. Lecture, three hours; discussion, one hour. Knowledge of Chinese Buddhism not required. Introduction and development of Buddhism in China, interaction between Buddhism and Chinese culture, rise of Chinese schools of Buddhist thought; Zen’s relation to warrior culture, folk religious aspects such as shamanism, ancestor worship, and millenarianism. P/NonP or letter grading.

M161B. Japanese Buddhism. (4) Same as Japanese CM160. Lecture; three hours; discussion, one hour. Knowledge of Japanese Buddhism not required. Development of Buddhism in Japan in its cultural context, with emphasis on key ideas and teachings. Letter grading.

M161C. Korean Buddhism. (4) Same as Korean CM160. Lecture; three hours; discussion, one hour. Knowledge of Korean Buddhism 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. Letter grading.

M161D. Buddhism in India. (4) Same as South Asian CM160. 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 inscriptions evidence of both formal doctrinal and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Letter grading.

M171A. Introduction to Biblical Studies. (4) Same as Ancient Near East M171A. Lecture; three hours. Knowledge of original languages not required. Bible (Old and New Testaments) as book, Canon, text, and versions. Linguistic, literary, historical, and religious approaches to Bible study; Survey of history of interpretation from antiquity to present. P/NonP or letter grading.

M173C. Shinto, Buddhism, and Japanese Folk Religion. (4) Same as History M173C. Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Social dimension of various Ways, great and little: Shinto’s connection with cultural nationalism, Buddhism’s medieval Reformation and Zen’s relation to warrior culture, folk religious aspects such as shamanism, ancestor worship, and millenarianism. P/NonP or letter grading.

M174D. Indo-Islamic Interactions, 700 to 1750. (4) Same as History M174D. Lecture; three hours; dis- cussion, one hour (when scheduled). Designed for seniors/juniors. Historical introduction to Muslim com- munities of what eventually became nations of India, Pakistan, and Bangladesh. Topics: political, reli- gious, and cultural history. P/NonP or letter grading.

M174E. Indo-Islamic Interactions, 1750 to 1950. (4) Same as History M174E. Lecture; three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Examination of interplay of factors that, from Christian missionaries to Islamic madrasa schools and colonial rebellions, gave shape to multi- faceted Muslim reformation in context of colonial mo- dernity. P/NonP or letter grading.

M175. Topics in Philosophy of Religion. (4) Same as Philosophy M175. Lecture, three hours; dis- cussion, one hour. Requisite: Philosophy 21 or 22. Inten- sive investigation of one or two topics or works in phi- losophy of religion, such as attributes of God, argu- ments for or against existence of God, or relation between religion and ethics. Topics announced each term. May be repeated for credit with consent of in- structor.

177. Variable Topics in Religion. (4) Seminar, three hours. Interdisciplinary approach to some major topics in study of religion, with primary focus on philosophical analysis of religious belief and practice and its relation to other areas of philosophical thought such as phi- losophy of language, discourse analysis, episte- mology, metaphysics, ethics, practice theory, and po- litical theory. Topics may include nature of religious experience and its epistemic status, embodiment and religious self, relationship between knowledge, faith, and doubt, nature and function of religious language, relationship between science and religion, religious belief and standards of rational discourse, theoretical approaches to problems of religious diversity and competing truth claims, formation of religious and spiritual in modernity. P/NonP or letter grading.

M182A. Ancient Jewish History. (4) Same as History M182A and Jewish Studies M182A. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social, polit- ical, and religious developments. P/NonP or letter grading.

M182B. Medieval Jewish History. (4) Same as History M182B and Jewish Studies M182B. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of unfolding of Jewish history from rise of Christianity to expulsion of Jews from Spain in 1492. P/NonP or letter grading.

M184A. Jewish Civilization: Encounter with Great World Cultures. (4) Same as History M184A and Jewish Studies M184A. Lecture; three hours; dis- cussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of dynamic and millennia- old interaction of Jews with great world cultures. Cre- ative adaptations that have left Jewish culture its dis- tinct and various forms. P/NonP or letter grading.

M185D. Religions of Ancient Near East. (4) Same as Ancient Near East M185D and History M185D. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Main poly- theistic systems of ancient Near East, with emphasis on Mesopotamia and Syria and with reference to reli- gion and science in ancient Israel: Divinity, hier- archies of gods, prayer and cult, magics, wisdom, and moral conduct. P/NonP or letter grading.

M186A. History of Early Christians. (4) Same as History M186A. Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Rich variety in religious practice and thought in Mediterranean world of 1st century CE as it emerged from its Jewish setting and as Christian movement from its origins to circa 160 CE, stressing its continuity/discontinuity with Judaism, various responses to Jesus of Nazareth, writings pro- duced during this period, movement’s encounters with its religious, social, and political world, and methods of research. P/NonP or letter grading.

M186B. Religious Environment of Early Christians. (4) Same as History M186B. Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Rich variety in religious practice and thought in Mediterranean world of 1st century CE as it emerged from its Jewish setting and as Christian movement from its origins to circa 160 CE, stressing its continuity/discontinuity with Judaism, various responses to Jesus of Nazareth, writings pro- duced during this period, movement’s encounters with its religious, social, and political world, and methods of research. P/NonP or letter grading.

M186C. Jesus of Nazareth in Historical Research. (4) Same as History M186C. Lecture, three hours; dis- cussion, one hour (when scheduled). Recommended preparation: course M185F. Designed for seniors/juniors. Substantiated 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 Jewish, economic, political, and religious contexts. P/NonP or letter grading.
189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Study of Religion. (4) Seminar, four hours. Preparation: completion of preparation for major courses and at least half of upper-division courses required for major (including theory and method courses). Designed for senior majors. Seminar on central method and/or theme in study of religion. Refinement and integration of this knowledge by means of close reading and analysis of primary documents, debating contested issues, and researching and writing original paper. P/NP or letter grading.


199. Directed Research in Study of Religion. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. Twelve units may be applied toward major. Individual contract required. Letter grading.

ROTC PROGRAM

See Aerospace Studies (Air Force), Military Science (Army), and Naval Science (Navy/Marines)

SCANDINAVIAN SECTION

College of Letters and Science

332 Royce Hall
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Los Angeles, CA 90095-1537

Scandinavian Section

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Associate Professor
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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 perspectives of non-Humanities disciplines, if they choose, while requiring a strong grounding in the history and cultures of the region. The minor in Scandinavian Languages is designed to give students a command of the intellectual history of the region and a developing appreciation of its literatures and cultures.

Graduate study leads to the Master of Arts in Scandinavian. Graduate students are expected to concentrate on one Scandinavian language, though they study the literatures of the other areas.

Undergraduate Study

The Scandinavian Languages and Cultures and Nordic Studies majors are designated capstone majors. Under the guidance of faculty members, students are required to devise, research, and complete either a substantial research paper, film/video, or a website that reflects significant engagement with a challenging question in the realm of Scandinavian languages and cultures or Nordic studies. Through their capstone work, all students are expected to demonstrate their skills in articulating a clear and sophisticated research question, devising a realizable set of research goals, deploy their advanced knowledge of a Nordic language to access target language research materials and incorporate them into the research corpus, devise an appropriate modality for the final project, present a concise engaging public presentation of their research and respond to questions, and archive their project in an appropriate form.

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 BA

Capstone Major

Learning Outcomes

The Nordic Studies major has the following learning outcomes:

• Demonstrated command of the linguistic and cultural diversity of the Nordic region
• Demonstrated command of the economics, politics, environments, and histories of the Nordic region
• Demonstrated specific skills and expertise, including research, analysis, and writing
• Demonstrated understanding of the role of the Nordic region in global context, and the impact of global phenomena on the region
• Identification, evaluation, and analysis of appropriate primary sources
• Working knowledge of scholarly discourse from broad range of disciplines
• Conception and execution of a project that identifies and engages with a specialized topic
• Engagement with peers through presentation, discussion, and critique of student work

The Major

Required: Nine courses from the following five tracks, with at least one course in four of the tracks: (1) early Nordic literatures and cultures—Scandinavian C131, C132A, C132B, C133A, C134, C137, 138, (2) theory, genres, and authors—Scandinavian C141A, C141B, C141C, 142A, 143C, CM144A, C145A, C145B, C146A, 147A, C147B, (3) literary periods—Scandinavian 152, 155, 156, 157, (4) Scandinavian cinema—Scandinavian 161, C163A, C166A, C166C, (5) cultural studies—Scandinavian C171, C173A, C174A, 174B, C175, C180; and one senior capstone course (Scandinavian 199) under the direction of a faculty member.

As an option, four upper-division courses in a related field may be taken if approved in advance by the undergraduate adviser. In general, the courses must include significant content related to the Nordic region.

Scandinavian Languages and Cultures BA

Capstone Major

Learning Outcomes

The Scandinavian Languages and Cultures major has the following learning outcomes:
• Demonstrated written and oral mastery of a single Nordic language
• Demonstrated knowledge of the other Nordic languages
• Demonstrated specific skills and expertise, including research, analysis, and writing
• Identification, evaluation, and analysis of appropriate primary sources
• 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: Scandinavian 1, 2, and 3, or 11, 12, and 13, or 21, 22, and 23, or equivalent.

Transfer Students
Transfer applicants to the Scandinavian Languages and Cultures major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of either Swedish, Norwegian, or Danish.

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

The Major
Required: Seven courses from at least three of the following five tracks: (1) early Nordic literatures and cultures—Scandinavian C131, 132A, 132B, C133A, C137, C138, (2) theory, genres, and authors—Scandinavian C141A, 141C, 142A, 143C, CM144A, C145A, C145B, C146A, 147A, C147B, (3) literary periods—Scandinavian 152, 155, 156, 157, (4) Scandinavian cinema—Scandinavian 161, C163A, C166A, C166C, (5) cultural studies—Scandinavian C171, C174A, 174B, C175; and one senior capstone course (Scandinavian 199) under the direction of a faculty member.

Also required is a second-year language sequence selected from Scandinavian 105A, 105B, and 105C, or 106A, 106B, and 106C, or 107A, 107B, and 107C, or 132A, 132B, and 132C. Students with language preparation equivalent to two years of language must take an additional three upper-division courses in lieu of the second-year language sequence.

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. It is recommended that students who plan to do graduate work in Scandinavian take German 1 through 6.

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.
2. Elementary Swedish. (4) Discussion, four hours. Enforced requisite: course 1, P/NP or letter grading.
4. Elementary Swedish: Intensive. (12) Lecture, 15 hours; laboratory, five hours. Intensive basic course in Swedish equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.
5. Elementary Norwegian. (4) Discussion, four hours. P/NP or letter grading.

Scandinavian Upper-Division Courses

Graduate Courses
• Identification, evaluation, and analysis of appropriate primary sources
• Demonstrated knowledge of the other Nordic languages and Cultures
• Demonstrated written and oral mastery of a single Nordic language
• 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: Scandinavian 1, 2, and 3, or 11, 12, and 13, or 21, 22, and 23, or equivalent.

Transfer Students
Transfer applicants to the Scandinavian Languages and Cultures major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of either Swedish, Norwegian, or Danish.

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

The Major
Required: Seven courses from at least three of the following five tracks: (1) early Nordic literatures and cultures—Scandinavian C131, 132A, 132B, C133A, C137, C138, (2) theory, genres, and authors—Scandinavian C141A, 141C, 142A, 143C, CM144A, C145A, C145B, C146A, 147A, C147B, (3) literary periods—Scandinavian 152, 155, 156, 157, (4) Scandinavian cinema—Scandinavian 161, C163A, C166A, C166C, (5) cultural studies—Scandinavian C171, C174A, 174B, C175; and one senior capstone course (Scandinavian 199) under the direction of a faculty member.

Also required is a second-year language sequence selected from Scandinavian 105A, 105B, and 105C, or 106A, 106B, and 106C, or 107A, 107B, and 107C, or 132A, 132B, and 132C. Students with language preparation equivalent to two years of language must take an additional three upper-division courses in lieu of the second-year language sequence.

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. It is recommended that students who plan to do graduate work in Scandinavian take German 1 through 6.

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 Section / 665

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, folklore, and epic, including Nibelungenlied, Volsunga saga, Eddas, and Beowulf. Cultural and historic backgrounds to texts. Satisfies Writing II requirement. Letter grading.
40W. Heroic Journey in Northern Myth, Legend, and Epic. (4) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 40. All readings in English. Comparison of journeys of heroes. Readings in mythology, legend, folklore, and epic, including Nibelungenlied, Volsunga saga, Eddas, and Beowulf. Cultural and historic backgrounds to texts. Satisfies Writing II requirement. Letter grading.
50. Introduction to Scandinavian Literatures and Cultures. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 50. Enforced requisite for course 50: current intellectual importance, taught by faculty
50W. Introduction to Scandinavian Literatures and Cultures. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 50W. Introduction to cinematic traditions of Nordic countries, with emphasis on construction of other or outsider as a conceptual category. Survey of wide range of films to interrogate relationship between various forms of minority discourse and dominant values, institutions, and mechanisms and instruments of social control. How these cinematic narratives of dominant normativity and diversity reflect cultural anxieties surrounding identity, ideology, collective memory, and power relationships. Screenings supplemented with relevant theoretical texts to give tools necessary to more effectively contextualize and analyze images. Satisfies Writing II requirement. Letter grading.
60W. Introduction to Nordic Cinema. (5) Lecture, two hours; discussion, two hours. Not open for credit to students with credit for course 60. Introduction to cinematic traditions of Nordic countries, with emphasis on construction of other or outsider as a conceptual category. Survey of wide range of films to interrogate relationship between various forms of minority discourse and dominant values, institutions, and mechanisms and instruments of social control. How these cinematic narratives of dominant normativity and diversity reflect cultural anxieties surrounding identity, ideology, collective memory, and power relationships. Screenings supplemented with relevant theoretical texts to give tools necessary to more effectively contextualize and analyze images. Satisfies Writing II requirement. Letter grading.
89. Honors Seminars. (1 to 2) 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

105A-105B. Intermediate Swedish. (4-4) (Formerly numbered 4, 5.) Lecture, four hours. Enforced requisite: course 105A; course 3; for course 105B: course 105A, P/NP 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/NP or letter grading.

106A-106B. Intermediate Norwegian. (4-4) (Formerly numbered 14, 15.) Lecture, four hours. Enforced requisite: course 106A; course 13; for course 106B: course 106A, P/NP 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/NP or letter grading.

107A-107B. Intermediate Danish. (4-4) (Formerly numbered 24, 25.) Lecture, four hours. Enforced requisite: course 107A; course 23; for course 107B: course 107A, P/NP 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/NP or letter grading.


C131. Introduction to Viking Age. (4) Lecture, three hours. History, society, and culture of early Scandinavians. All texts in English, including readings in Old Norse sagas and Eddas. Concurrently scheduled with course C231. Letter grading.

132A. Elementary Old Norse. (4) Lecture, three hours. Introduction to grammar and pronunciation of Old Norse. Selected readings from sagas and Prose Edda. P/NP or letter grading.


132C. Advanced Old Norse. (4) Lecture, three hours. Enforced requisite: course 132B. Readings from variety of Old Norse-Icelandic texts. Continuation of development of translation skills, as well as familiarity with Old Norse-Icelandic texts and philological, linguistic, literary, and cultural issues surrounding their interpretation. P/NP or letter grading.

133A. Saga. (4) Seminar, three hours. Sagas are largest extant medieval prose literature. Texts in English, with occasional use of Old Norse. Focus on character roles, enigmatic, controversial, and widely acclaimed Danish author Henrik Ibsen. May be concurrently scheduled with course C245A. P/NP or letter grading.

134. Scandinavian Mythology. (4) Seminar, three hours. Overview of major gods and goddesses, heroes and heroines, narratives and adventures that make up lore collectively referred to as Scandinavian, or Norse, myth. 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/NP or letter grading.


138. Vikings. (5) Lecture, three hours; discussion, one hour. Survey of history, anthropology, and archaeology of Viking Age in Northern Europe, and consider ways in which European and Scandinavian societies evolved in response to Viking incursions. P/NP or letter grading.

134A. Voices of Women in Nordic Literature. (4) (Same as Gender Studies M186.) Seminar, three hours. Requisite: course 105B or 106B or 107B. Knowledge of Scandinavian languages not required for nonmajors. Readings and discussion of writings by Sigríður Einarsson, Inger Ibsen, and Karin Kardel, focusing on the world view, cultural, sociological, critical, and comparative contexts. May be concurrently scheduled with course C244A. P/NP or letter grading.

134B. Knut Hamsun. (4) Seminar, three hours. Readings and discussion of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavian writers who explored theme of nature as modern idyll. May be concurrently scheduled with course C245B. P/NP or letter grading.

146A. August Strindberg. (4) Seminar, three hours. August Strindberg’s portrayals of marital conflict re- shaped and shaped literary representation of so-called battle of sexes. His work, as well as its literary trans- formations, is placed into the context of 19th-century, and feminist context. May be concurrently scheduled with course C246A. P/NP or letter grading.

147A. Hans Christian Andersen. (4) Lecture, two hours; discussion, one hour. Study of Hans Christian Andersen, Danish novelist, dramatist, and writer of tales, including consideration of his literary background and of his times. Analysis of his works in terms of their structure, style, and meaning. P/NP or letter grading.

147B. Søren Kierkegaard. (4) Seminar, three hours. Readings and discussion of selected works by Søren Kierkegaard and other existentialist writers. May be concurrently scheduled with course C247B. P/NP or letter grading.

147C. Karen Blixen. (4) Lecture, three hours. Investigation of life, work, writings, and legacy of Danish author Karen Blixen, also known in the English-speaking world as Isak Dinesen. Focus on literary and philosophical paradoxes personified and articulated by enigmatic, controversial, and widely acclaimed Danish author Henrik Ibsen. Discussion of application of contemporary theories to novels. May be concurrently scheduled with course C247B. P/NP or letter grading.


152. Backgrounds of Scandinavian Literature. (4) Seminar, three hours. Readings and discussion of representative texts selected from literature of medi- eval, Renaissance, baroque, and Enlightenment peri- od. 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 under- stand Scandinavian Romanticism in larger European context, including works from both English and German Romantic writers and artists. P/NP or letter grading.


156. Scandinavian Literature of 20th Century. (4) Seminar, three hours. Readings and discussion of selected works of modern Scandinavian literature from beginning of century to present. P/NP or letter grading.

157. Contemporary Nordic Literature. (4) Seminar, three hours. Reading and analysis of selected texts by major 20th-century Swedish authors. P/NP or letter grading.
Seminar, three hours. Introduction to and exploration of history of Scandinavian cinema from silent era to present. Filmmakers include Tancred Ibsen, Arne Skouen, Edith Carlmar, Nils Gaup, Erik Skjoldbjærg, Bent Hamer, Khalid Hussain, and Petter Naess. Particular focus on postwar Swedish film industry, international art cinema, and issues of auteur filmmaking. Study of Northern myth and religion through contextualization of silent and sound works of this most personal of filmmakers within multiple frameworks of postcolonial, feminist, and critical race theory. 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 C263B. P/NP or letter grading.

C166C. Vikings on Film. (4) Seminar, three hours. Exploration of representations of Vikings in medium of film, considering Viking films within their historic and cultural contexts. How does representation of Vikings on film correspond to historical reality of Vikings? What have Vikings come to signify in modern era and why? Do we see changing cultural contexts. Representation of Vikings in films produced with course C271. 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 historic and cultural contexts. Examination of Northern myth and religion through contextualization of silent and sound works of this most personal of filmmakers within multiple frameworks of postcolonial, feminist, and critical race theory. 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 C263B. P/NP or letter grading.

C174A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Examination of emergence of immigrant cultures in Nordic region. Beginning in 1960s, large numbers of people from Turkey, Italy, and Pakistan began immigrating to Nordic countries, followed in subsequent decades by immigrants and refugees from Vietnam, India, Iran, Iraq, Afghanistan, Cambodia, and countries throughout Africa. Cultural landscape of Scandinavia is changing and has had more progressive view on homosexuality than most other countries, and Scandinavian writers portray homosexuality in explicit and radical ways in modern society. Focus on key theoretical works within field of gay and lesbian studies and queer studies, as well as presentation of historical view of how homosexuality has been perceived in Western world over time. P/NP or letter grading.

C174B. Queer Scandinavia. (4) Seminar, three hours. Queer themes in Scandinavian literature, mainly from 19th and 20th centuries. Study of novels by Henrik Ibsen and other writers, as well as critical work on queer themes in literature. Focus on key theoretical works within field of gay and lesbian studies and queer studies, as well as presentation of historical view of how homosexuality has been perceived in Western world over time. P/NP or letter grading.

C175. Introduction to Sami Language and Culture. (4) Lecture, three hours. Use of thematically arranged, structurally graduated readings, conversation topics, individual and group assignments, and journal writing to increase and solidify understanding of characteristics of Sami language. At course end students should be able to communicate in Sami in variety of common social situations and be equipped with necessary language skills to continue language acquisition and cultural studies in their social and professional milieu, interacting with native speakers, or other activities. May be repeated for credit. Individual contract required. P/NP or letter grading.

C180. Literature and Scandinavian Society. (4) Seminar, three hours. Discussion of selected aspects of Scandinavian society based on readings of contemporary literature, as well as cultural and historical and/or sociological material. May be repeated for credit (as determined by undergraduate advisor) with topic change. May be concurrently scheduled with course C280. P/NP or letter grading.

C185. Scandinavian Section / 667

C165. Scandinavian Literature. (4) Seminar, three hours. Selected topics in Scandinavian prose, poetry, and drama. May be repeated for credit with consent of instructor and undergraduate advisor. May be concurrently scheduled with course C265. P/NP or letter grading.

187FL. Special Studies: Readings in Scandinavian. (2) Seminar, two hours. Requisite: course 105B or 106B or 107B. Students must be concurrently enrolled in affiliated main course. Additional work in preparation for reading classes. Must be concurrently scheduled with course C265. P/NP or letter grading.

191. Advanced Honors Seminar. (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 credit 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 credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Scandinavian. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. 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 Edas. Concurrency scheduled with course C232A. Graduate students do additional readings and write more extensive research papers. Letter grading.

C232A. Saga. (4) Seminar, three hours. 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. Concurrency scheduled with course C133A. Graduate students do additional readings and write more extensive research papers. Letter grading.


C237. Old Norse Literature and Society. (4) Seminar, three hours. Critical issues in medieval Scandinavian studies. May be repeated for credit. Concurrency scheduled with course C137. Graduate students do additional readings and write more extensive research papers. Letter grading.
May meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C244A. Voices of Women in Nordic Literature. (4) Seminar, three hours. Preparation: advanced knowledge of one modern 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.

C245A. Henrik Ibsen. (4) Seminar, three hours. Preparation: advanced knowledge of one modern 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.

C245B. Knut Hamsun. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavian writers who explored themes of nature as modern idyll. May be concurrently scheduled with course C145B. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C246A. August Strindberg. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. August Strindberg's portrayals of marital conflict reflected and shaped literary representation of so-called battle of sexes. His work, as well as its literary transformations, placed into Scandinavian, European, and feminist context. May be concurrently scheduled with course C146A. 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. Søren Kierkegaard. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected works of Søren Kierkegaard and other existentialist writers. May be concurrently scheduled with course C147B. S/U or letter grading.

C253A. Introduction to Danish Cinema. (4) Seminar, three hours. Preparation: 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 cinematic Danish mark rather than focus on films of particular directors or topics. Theoretical readings from important critics, including Kracauer, Bazin, Metz, and Chatman, along with several selected essays, to develop vocabulary and critical methods for discussing films in general and Danish cinema in particular. Other readings include selections from Hjort, Sandberg, Tangherlini, and other Scandinavian critics. Concurrently scheduled with course C143B. S/U or letter grading.

C253B. Introduction to Swedish Cinema. (4) Lecture, three hours. Introduction to and exploration of history of Swedish cinema from silent era to present. Filmmakers include famous figures in international canon such as Victor Sjöström, Mauritz Stiller, and Ingmar Bergman, as well as other key Swedish filmmakers such as Gustaf Molander, Alf Sjöberg, Mai Zetterling, Vilgot Sjöman, Jan Troell, Lukas Moodysson, Josephine Røche, and Nils Gaup. May be concurrently scheduled with course C163B. S/U or letter grading.

C253C. Introduction to Norwegian Cinema. (4) Seminar, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present. Filmmakers include Tancred Ibsen, Arne Skouen, Edith Carin, Niels Gaup, Erik Skjoldbjærg, Bent Hamer, Khalid Hussein, and Per Skjønberg. Partic- ular focus on popular genres such as war films, horror, noir, romantic comedies, and documentaries. Concurrently scheduled with course C163C. S/U or letter grading.

C265. Seminar: Scandinavian Literature. (4) Seminar, three hours. Preparation: reading knowledge of a Scandinavian language. Selected topics in Scandinavia- nian language. Readings may be selected for credit with consent of instructor and graduate adviser. May be concurrently scheduled with course C185. S/U or letter grading.

C266A. Ingmar Bergman. (4) Seminar, three hours. Exploration of Ingmar Bergman’s development as film artist through various periods, spanning mid-1940s and late 1970s. Contextualization of work of this most personal of filmmakers within multiple frameworks of postwar Swedish film industry, international art cinema movement, and issues of auteur filmmaking. Course readings and viewing of 10 Bergman films. All films have English subtitles. Concurrently scheduled with course C147B. 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 well. Focus on films that Dreyer made during near half century spanning from mid-1919 and 1964. Contextualization of silent and sound works of this most personal of film- makers within multiple frameworks: Danish national film industry, transnational European cinema, and is- sues of author filmmaking. Readings by key Dreyer scholars such as David Bordwell, Ray Carney, Paul Schrader, Mark Sandberg, and others, as well as Dreyer’s own memoirs. All films have English in- titles or subtitles. Concurrently scheduled with course C166C. S/U or letter grading.

C271. Introduction to Scandinavian Folklore. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Introduction to fairy tales and legends of Scandinavian tra- dition as well as to interpretive methodologies that strive to answer question why do people tell stories that they tell? Concurrently scheduled with course C171. Letter grading.

M271. Study of Oral Tradition: History and Meth- ods. (4) (Same as English M205A) Seminar, three hours. Exploration of scholarly and literary attempts to study oral tradition, its appropriate oral traditions, from Homer and ancient Greece to ori- gins of vernacular literatures, European romantic rediscovery of oral tradition, 20th-century heuristic models of oral composition, and modern-day elec- tronic media and popular verbal genres, such as joking and rapping. S/U or letter grading.

M272. Collecting Oral Tradition. (4) (Same as English M206C) Seminar, three hours. Exploration of description and evaluation of various modern approaches to collect- ing and documenting oral tradition as text, perfor- mance, and sociocultural event. Consideration of approaches ranging from written transcription and tex- tualization to audio and video presentation. S/U or letter grading.

M273. Studies in Oral Traditional Genres. (4) (Same as English M205C) Seminar, three hours. Exploration of depth of variety and history of, and scholarship on, a particular oral traditional genre (e.g., ballad, song, epic, proverb, riddle, folklore, legend) or a set of closely related oral traditional genres. S/U or letter grading.

C274A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Exploration of emergence of immi- grant cultures in Nordic region. Beginning in 1960s, large numbers of people from Turkey, Italy, and Paki- stan began immigrating to Nordic countries. Followed in subsequent decades by immigrants and refugees from Vietnam, India, Iran, Afghanistan, Cambodia, and countries throughout Africa. Cultural land- scape previously marked by relatively high degree of cultural homogeneity now characterized by broad cul- tural 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 emerg- ence of new forms of Nordic languages, such as well-documented phenomenon of Rite oor Swedish. Concurrently scheduled with course C174A. S/U or letter grading.

C275. Introduction to Sami Language and Culture. (4) Lecture, three hours. Use of threateningly arranged, structurally graduated readings, conversation topics, individual and group assignments, and journal writing to provide systematic overview of linguistic character- istics and dialects. Preparation: knowledge of one modern Scandinavian language. At course end students should be able to communicate in Sami in variety of common social situations and should be equipped with necessary basic concepts to continue language acquisition and cultural studies in their social and professional milieu, interacting with native speakers, or taking formal courses at intermediate level. Concurrently scheduled with course C175. S/U or letter grading.

C280. Literature and Scandinavian Society. (4) Seminar, three hours. Designed for graduate stu- dents. Discussion of selected aspects of Scandinavia- nian society based on readings of contemporary liter- ature, as well as historical and sociological material. May be repeated for credit (as determined by grad- uate adviser) with topic change. May be concurrently scheduled with course C180. Graduate students may meet for extra seminar hours and write research pa- pers of greater length and depth. S/U or letter grading.

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

596. Directed Individual Study or Research. (2 to 6) Tutorial, to be arranged with faculty member who directs the study or research. Limited to graduate Scandinavian students. Twelve units may be applied toward total course requirement, but only 4 units may be applied toward minimum graduate course require- ment. May be repeated twice. S/U or letter grading.

597. Preparation for MA Comprehensive Examina- tion or PhD Qualifying Examination. (2 to 6) Tuto- rial, to be arranged with faculty member who directs the study or research. May be repeated once. May not be applied toward MA minimum course require- ment. May be repeated in grading.

599. Research for and Preparation of PhD Disser- tation. (4) Tutorial, to be arranged with faculty member who directs the study or research. May be repeated. S/U grading.
The Science Education minor is designed for students who wish to become middle school and high school science teachers or who plan to teach as graduate students in their disciplines. The minor provides a background in teaching and learning science and the broad general science background included in California State subject matter credential examinations, selected coursework required for entry into a variety of postbaccalaureate credential programs, and field experiences in the development, management, and teaching of science laboratory instruction in grades 7 through 12, including Advanced Placement Tests.

**Undergraduate Study**

**Science Education Minor**

Students eligible for admission to the Science Education minor should be making normal progress on the preparation for a major in the sciences or engineering whether they have declared such a major or not. They must have completed nine courses selected from the following, with at least one course from each of the four categories: (1) Chemistry and Biochemistry 1A4, 1B4, 1BL4, 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, 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 filling a petition to enter the minor.

**Required Lower-Division Courses (6 to 7 units):** Science Education 10SL and Earth, Planetary, and Space Sciences 1 (Earth, Planetary, and Space Sciences 101 or CI13 or Atmospheric and Oceanic Sciences 101 or 102 or 103 may be substituted for course 1).

**Required Upper-Division Courses (22 units minimum):** (1) Education 127, (2) Science Education 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, 125S, 128, 130, 132, 133, 134, 138, 164, 166, 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 10SL, 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. Pairs of students are placed in local elementary 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 science concepts at this level. 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 area of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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 a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

**Upper-Division Courses**

100SL. Classroom Practices in High School Science. (5) Seminar, three hours; service learning fieldwork, three hours. Recommended requisite: course 1SL or 10SL. 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 culture, cognitive development of students at this level, and best means to teach appropriate science concepts at this level. P/NP 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.

**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 in 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 Capstone Major

Learning Outcomes

The Central and East European Languages and Cultures 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: 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


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: 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


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.
Preparation for the Major

**Required:** Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

**Transfer Students**

Transfer applicants to the Russian Language and Literature major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Russian civilization course. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

**Required:** Ten courses (44 to 47 units), including 
(1) three Russian language courses selected from Russian 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 108 (consult with the undergraduate adviser for appropriate placement); (2) five Russian literature and culture courses selected from 119, 120, 121, 129, 130A, 130B, 130C, 140A through 140D; and (3) two additional Russian language and/or literature courses selected from 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 108, M118, 122, C124C, C124D, C124G, C124N, C124P, C124T, M127, Slavic CM114. During their senior year, students must also take Slavic 191TA, 191TB, and 191TC in which they complete a capstone senior thesis. Students may petition to substitute courses after consulting with the undergraduate adviser. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**Russian Studies BA 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: two years of Russian and one Russian civilization course. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

**Required:** Ten courses (44 to 47 units), including
(1) three Russian language courses selected from Russian 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 108 (consult with the undergraduate adviser for appropriate placement); (2) three additional Russian literature and/or literature courses selected from 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 108, M118, 122, C124C, C124D, C124G, C124N, C124P, C124T, M127, Slavic CM114. During their senior year, students must also take Slavic 191TA, 191TB, and 191TC in which they complete a capstone senior thesis. Students may petition to substitute courses after consulting with the undergraduate adviser. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**Honor 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. For application forms and more information, contact the departmental undergraduate adviser.

**Requirements**

The honors program is a three-term sequence (Slavic 198A, 191H, 198B), taken in addition to requirements for the major, that culminates in the submission of a thesis. In most circumstances the courses are taken in the senior year (fall, winter, and spring quarters). 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, 191H, and 198B.

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, 191H, and 198B with a grade of A in each course.

Honor and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

**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 322B Humanities Building, 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 to be selected from Czech 101A, 101B, 101C, Hungarian 101A, 101B, 101C, Polish 101A, 101B, 101C, Romanian 101A, 101B, 101C, 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 125, 126, Czech 155, Gender Studies 185, History 120A through 120D, Polish 152A, 152B, 152C, Romanian 152, Russian C124G, Croatian/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 125, 126, Czech 155, Ethnomusicology 161C, Gender Studies 185, History 120A through 120D, Polish 152A, 152B, 152C, Romanian 152, Russian C124G, 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.

**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.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

91. Culture and Society in Central and Eastern Europe. (5) Lecture, three hours; discussion, one hour. 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**

M120. Women and Literature in Southeastern Europe. (4) Same as Comparative Literature M120.) Seminar, three hours. Examination of changing roles of women in Balkan countries (Albania, Bosnia-Hercegovina, Bulgaria, Croatia, Greece, Macedonia, Montenegro, Romania, Serbia, Slovenia, Turkey) in last forty years. Emphasis on cultural, social, political, and economic factors affecting women's roles during countries' transition from agricultural to industrial economy.
and from communism to post-communism (in former communist countries). Sensitive to 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, art history, and short fiction by women writers for analysis. Discussion and debating of topics covered in articles, different positions taken by authors, and in which aspects of these realities are rendered in fictional form by women writers from regions. P/N or 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/N or letter grading.

126. Cold War Central European Culture. (4) Lecture, three hours. Examination of coldwar Central European culture through prism of prose fiction, essays, and film from 1947 to 1992. 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 culture as node of resistance, as well as accommodation to communist system. P/N or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

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 activities. May be repeated for maximum of 4 units. Individual honors contract required; consult Undergraduate Research Center. May be repeated. P/N or letter 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 components. Letter grading.

102A-102B-102C. Advanced Czech, (4–4–4) Lecture, three hours. Required 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/N or letter grading.


105. Survey of Czech Literature from Middle Ages to Present. (4) Lecture, three hours. Lectures and readings in English. P/N or letter grading.

107A. Advanced Tutorial Instruction in Czech. (2) Tutorial, one hour; laboratory, one hour. Enforced requisites: course 102C or Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/N or letter grading.

107B-187M. Advanced Tutorial Instruction in Czech. (2 each) Tutorial, one hour; laboratory, one hour. Preparatory course in sequence or Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/N or letter grading.

108. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

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/N or letter grading.

May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N 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. 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. Individual contract required. P/N or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/N or letter grading.

Upper-Division Courses

101A-101B-101C. Elementary Hungarian. (4–4–4) Lecture, three to four 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/N 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/N or letter grading.

121. Survey of Hungarian Literature in Translation. (4) Lecture, three hours. Designed for students in general and comparative literature, as well as students interested in Finno-Ugric studies. Survey of main trends and contacts with other literatures. P/N or letter grading.

127A. Advanced Tutorial Instruction in Hungarian. (2) Tutorial, one hour; laboratory, one hour. Preparatory course in sequence or Hungarian placement test. Tutorial and guided independent study of advanced Hungarian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/N or letter grading.

187B-187M. Advanced Tutorial Instruction in Hungarian. (2 each) Tutorial, one hour; laboratory, one hour. Preparatory course in sequence or Hungarian placement test. Tutorial and guided independent study of advanced Hungarian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/N or letter grading.

169. 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. UCLA, P/N grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

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. P/N or letter grading.

190HC, Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

197. Individual Studies in Hungarian. (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/N 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. UCLA, P/N 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 lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. 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, 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 Lithuanian language. P/NP or letter grading.

102A-102B-102C. Advanced Lithuanian. (4–4–4) Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/NP or letter grading.

152A-152B-152C. Survey of Polish Literature. (4–4–4) Lecture, three hours. Lectures and readings in English. Letter grading. 152A. From the Middle Ages to Neoclassicism; 152B, Reimagining 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 C280. P/NP 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. 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 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.

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. 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.

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.

Romanian

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. 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.

Upper-Division Courses

101A-101B-101C. Elementary Polish. (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 Polish language. P/NP or letter grading.

102A-102B-102C. Advanced Polish. (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. Letter grading. 152A. From the Middle Ages to Neoclassicism; 152B, Reimagining 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 C280. P/NP or letter grading.

152D. Survey of Romanian Literature. (4) Lecture, three hours. Introduces survey of social and cultural institutions of Romanian people and their historical background. 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.
103A. 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, 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 upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. In-depth study with course instructor to exploit flow 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.

**Russian**

**Lower-Division Courses**

1. Elementary Russian. (5) Recitation, five hours; laboratory, one hour. P/NP or letter grading.

2. Elementary Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 1 or Russian placement test. P/NP or letter grading.

3. Elementary Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 2 or Russian placement test. P/NP or letter grading.

4. Intermediate Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 3 or Russian placement test. P/NP or letter grading.

5. Intermediate Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 4 or Russian placement test. P/NP or letter grading.

6. Intermediate Russian. (5) Lecture, five hours; 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, 4, 5, or letter grading.

15A-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 Research Center. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Intensive Intermediate Russian. (12) Lecture, 19 hours. Intensive instruction in reading, writing, and speaking Russian equivalent to courses 4, 5, 6, or P/NP or letter grading.

25. Great Russian Novel. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 25W. Designed for nonmajors. Knowledge of Russian not required. Study of major works 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. Enforced requisite: course 6 or Russian placement test. Course 101A or Russian placement test is enforced requisite to 101B; course 101B or Russian placement test is enforced requisite to 102B; course 102B or Russian placement test is enforced requisite to 102C. Discussion and comparison, with emphasis on development and review of selected grammar topics. Readings in fiction and nonfiction, films, and videos, and use of Internet. Each course may be taken independently and may be repeated for credit. P/NP or letter grading.

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 upper-division lecture course. In-depth study with course instructor to exploit flow 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.

32. Russia and Asia: Cultural Dialogues. (5) Lecture, three hours; discussion, one hour. Since end of Soviet era, development of political and ideological influences has been 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 defined them. P/NP or letter grading.

90. 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. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 90BW. Survey of literature, theater, cinema, television, press, music, and arts. Emphasis on contemporary period, with constant reference to Russian and early Soviet antecedents. P/NP or letter grading.

90BW. Russian Civilization in 20th Century. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 90B. Survey of literature, theater, cinema, television, press, music, and arts. Emphasis on contemporary period, with constant reference to Russian and early Soviet antecedents. Weekly discussions focus on variety of approaches to writing addressing class topics. Five short papers required. Satisfies Writing II requirement. 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 acquire research skills, develop critical thinking, 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. Literacy in Russian. (4–4–4) Lecture, three hours. Course 100A or Russian placement test is enforced requisite to 100B; course 100B or Russian placement test is enforced requisite to 100C. For students who speak Russian but have difficulty reading and writing. Focus on improving reading and writing skills, increasing vocabulary, and developing speaking skills required for academic discourse. P/NP or letter grading.

101A-101B-101C. Third-Year Russian. (5–5–5) Lectures, three hours; discussion, one hour. Enforced requisite: course 6 or Russian placement test. Course 101A or Russian placement test is enforced requisite to 101B; course 101B or Russian placement test is enforced requisite to 102B; course 102B or Russian placement test is enforced requisite to 102C. Discussion and comparison, with emphasis on development and review of selected grammar topics. Readings in fiction and nonfiction, films, and videos, and use of Internet. Each course may be taken independently and may be repeated for credit. P/NP or letter grading.

103A-103B-103C. Russian for Native and Near-Native Speakers. (4–4–4) Lecture, three hours. Course 103A is not requisite to 103B, which is not requisite to 103C. Improvement of oral and written language skills, emphasizing correct and diversified use of language and addressing individual grammatical difficulties. May be repeated for credit with topic and/or instructor change. P/NP or letter grading. 103A, Russian National Identity. Readings in literature, philosophy, criticism, film. 103B. Literature and Film. 103C. Adaptations of Russian literature. Readings and screenings. Special Topics.

107A-107B-107C. Russian for Social and Cultural Studies. (4–4–4) Lecture, three hours. Recommended preparation: third-year Russian. Lectures and readings in Russian, Explores Russian in social sciences and culture, with emphasis on press, television, and Internet. Each course may be taken independently and may be repeated for credit. P/NP or letter grading.

108. Russian for Business: Language and Culture. (4) Lecture, three hours. Discussion of economics and business in Russia, language of advertising, business and official correspondence. P/NP or letter grading.


111A-111B-111C. Russian Flagship Program Abroad: Superior Russian. (5–5–5) Lecture, three hours. Enforced requisite: course 110 or equivalent coursework 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 skills in Russian phonetics, conversation, and grammar. Acquiring more complex structures and expansion of lexical repertoire. Emphasis on formal interpersonal and presentational modes. 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 the end of the 17th century.


212B. Age of Realism. 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 the major works of Tolstoy, Dostoevsky, Saltykov-Shchedrin, and concluding with works of the presymbolist period, especially short stories of Chekhov. S/U or letter grading.

213A. 20th-Century Russian Literature, 1890 to 1923. (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, Bely, Khlebnikov, Pasternak, and others. S/U or letter grading.


C224T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in English. Early and later stories and novels, excerpts from the diaries and one major novel 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 attention to metrics, stanza forms, rhyme, and development of various verse types from the 18th into the 20th century.

C277. 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.

292. Seminar: 19th-Century Russian Literature. (4) Seminar, three hours. Requisites: courses 212A, 212B. In-depth reading of major works from 19th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser.

293. Seminar: 20th-Century Russian Literature. (4) Seminar, three hours. Requisite: course 213A. Selected authors and works from 20th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser. S/U or letter grading.

294. Seminar: Russian Literary Criticism. (4) Seminar, three hours. Requisite: courses 211B, 212A, 212B, 213A. Detailed study of specific school of literary criticism, single literary critic, or period in Russian literary history as reflected in literary criticism. Significant or similar phenomena in literary criticism in West. May be repeated for credit with consent of instructor and graduate adviser. 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.

Serbian/Croatian

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, other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1 Tutorial) three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Slavic

Lower-Division Courses

5. Introduction to Eurasia. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey of Eurasia. Introduction to history, culture, and geography of diverse area that is often vaguely understood as not quite Europe and not quite Asia, yet both at the same time home to several of history’s most powerful overland empires, as well as its most notorious figures: Genghis Khan, Alexander the Great, and the Temptation 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.

Upper-Division Courses


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/ Croation. (2) Tutorial, one hour; laboratory, one hour. Enforced requisite: 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 Ser- bian/Croatian. (2 each) Tutorial, one hour; labora- tory, one hour. Preparation: prior course in sequence or Serbian/Croatian placement test. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1 Seminar) three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, 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.
M20. Visible Language: Study of Writing. (5) Same 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 4th of millenium BC. While literate civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of corresponding script developments, their antecedents 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, alphabetization and writing systems, and presentation of conceptual basis of semiotic language representation. Origins and development of early non-Western writing systems. How Greco-Roman, and, in 1st millennium BC and it how it compares to other modern writing systems. P/NP or letter grading.

M40. Christianities 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 Orthodoxy, Roman Catholicism, and Protestantism, contrasting how history, dogma, community structures develop in those three traditions. P/NP or letter grading.

87. Languages of Los Angeles. (5) Lecture, three hours; discussion, one hour. Comprehensive interdisciplinary investigation of Los Angeles as multilingual and multicultural society and analysis of features of major linguistic communities in Los Angeles area (Armenian, Cantonese, Japanese, Korean, Mandarin, Russian, Spanish, and others), with particular attention to ethnic and cultural factors that play role in maintenance of language used in any given ethnic group. Familiarization with discipline and methodology of urban linguistics as part of urban geographical and as tool for investigating growing linguistic and cultural diversity of America’s large cities. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 juniors/seniors. 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 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.

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 per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

CM114. Teaching and Learning of Heritage Languages. (4) Same as Asian CM124 and Near Eastern Languages CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HL) and heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLs, particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLs; imp-
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 repeated for credit with topic change. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Directed as adjunct to lower-division lecture course. 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
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 Kotlyarevsky, 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 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 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.

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. May be applied toward honors credit for eligible students. Letter grading.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree
The Social Science Interdepartmental Program offers a self-supporting Master of Social Science (MSS) degree.

Social Science
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
188. Academic Innovation in Industry. (1) Lecture, one hour (six weeks). Exploration of how to apply disciplinary knowledge to industry problems and technology trends. Students build skills to enable them to create novel ways of meeting challenges, build network intelligence, and communicate their ideas and expertise. Students also learn problem-solving techniques like lean startup approach. Uses case study approach to show how social scientists have connected with recent technology trends to produce impactful innovation. P/NP 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.

400A-400B. Social Science Research and Perspectives. (4-4) Seminar, three hours. Exploration of contribution of social science research to addressing complex social problems. Students engage wide array of disciplinary perspectives, research methods, and analytical approaches. Emphasis placed on development of multidisciplinary, integrative approaches to social science research. Students learn how to identify and frame social problems; how to identify, interpret, and evaluate relevant research; and how to synthesize research findings generated from different theoretical, methodological, and disciplinary approaches. Development of essential research, writing, and analytic skills. Letter grading.

401. Qualitative Social Science Research Methods. (4) Seminar, three hours. Introduction to range of qualitative approaches used in social science research and analysis through combination of theoretical discussions and practical experience. Examination of practical and epistemological issues in qualitative research in workshop format. Covers practical workings of qualitative research: gathering data through interviews, focus groups, observation, questionnaires, and archival research; strategies for recording, coding, and analyzing qualitative data; and evaluating and presenting qualitative research.
Social Thought

Interdisciplinary Minor
College of Letters and Science

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Stefan Bargheer, PhD (Sociology)
Barbara Herman, PhD (History, Italian)
Russell Jacoby, PhD (History)
Jeffrey Prager, PhD (Sociology)
Melvin L. Rogers, PhD (American Studies, Political Science)
Peter J. Stacey, PhD (History, Italian)

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 history of modern ideas as embodied in a number of key texts by significant thinkers such as Descartes, Hobbes, Locke, Smith, Rousseau, Wollstonecraft, Mill, Marx, Weber, Darwin, Nietzsche, Freud, DuBois, 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-semester 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, Political Science 10, Sociology 10.


Required Research Colloquia and Senior Thesis (12 units): Students must also complete Social Thought 190A and 199A in one term and courses 190B and 199B in the following term. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Social Thought

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be 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

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 Colloquia in Social Thought I, II. (2-2) Seminar, one hour. Enrollment limited to 20 students. Designed as adjunct to Social Thought Minor. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

199A-199B. Directed Research or Senior Thesis in Social Thought I, II. (4-4) Tutorial, to be arranged. Corequisite for course 199A; course 199A; for 190B: course 199B. 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. P/NP grading. P/NP grading.
Social Welfare
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Aurora P. Jackson, PhD
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Ananya Roy, PhD (Meyer and Renee Luskin Professor of
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Fernando M. Torres-Gil, PhD

Professors Emeriti
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Diane S. de Anda, PhD
Yehezkel Hasenfeld, PhD
Doris S. Jacobson, PhD
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Emeritus of Social Welfare)
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Arny E. Ritterbusch, PhD
Carlos E. Santos, PhD
Latoya A. Small, PhD

Adjunct Professor
Jorja J. Leap, PhD

Adjunct Assistant Professor
Ayako Miyashita Ochao, JD

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 healthcare, better job training, and better economic futures.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

Social Welfare
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

98. 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, paper or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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 in 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 Social Welfare: Policies and Programs. (4) Lecture, four hours. Origin and development of major U.S. social welfare programs and policies guiding them, with emphasis on analysis of policy developments/issues related to provision of social welfare services. Study of historical and current responses of profession to major social problems. P/NP or letter grading.

100B. Social Welfare Policy: Overview. (4) Lecture, four hours. Requisite: course 100A. Review of existing policy regarding major social issues in field of social welfare. Examination of discrepancy between need and capacity of social agencies to address need. Exploration of differential impact of policy on various populations. P/NP or letter grading.

101. Social Welfare in Multicultural Society. (4) Lecture, four hours. Social policy viewed from perspective of various cultural groups. Students to become aware of their own cultural perspective and learn to recognize similarities and differences in values, perspectives, and beliefs across cultural groups. P/NP or letter grading.


103. Introduction to Direct Practice with Individuals, Families, and Groups. (4) Lecture, four hours. Requisites: courses 100A, 100B. 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.

M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) Same as Chicana and Chicano Studies M106B, Gender Studies M104C, and Gerontology M104C.) Lecture, four hours. Examination of complexity of variables related to diversity of aging popu- lation and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in a multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) (Same as Ger- ontology 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 Ger- ontology M104E.) Lecture, four hours. Topics include theories of aging, economic factors, changes roles, social relationships, and special populations. Weekly seminars organized around key aspect of social gerontol- ogy. P/NP or letter grading.

105. Social Welfare Policy in Modern America: His- torical Perspectives. (4) Lecture, three hours; out- side study, nine hours. Historical overview of Amer- ican social policy dealing with three core societal problems: poverty, sickness, and joblessness. Pro- grams developed by government to ameliorate these problems have typically been public insurance pro- grams or cash transfers such as unemployment insur- ance, welfare, and Social Security. Collectively these programs are known as “the welfare state”; examina- tion of origins of the U.S. welfare state, its develop- ment over time, and features that make it distinctive as compared to welfare states in other nations. Letter grading.
Adequacy often seek to define community needs and develop interventions to respond to those needs. Knowledge of community infrastructure necessary for ascertaining its strengths and resources that can be mobilized for addressing and responding to community needs, issues, and concerns. Social service agencies and communities can work together in partnership to enhance quality of community life. P/NP or letter grading.

M140. Introduction to Study of Aging. (4) Same as Psychology M140.) Lecture, three hours. Designed for juniors/seniors. Perspectives on major features of human aging—biological, social, psychological, and numerical. Critical examination of theories of aging and their 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. 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 others who are 90 years older than you? Individuals of all ages interact with one another, and their interactions have significance throughout their lives. Introduction to psychological, sociological, and social issues related to intergenerational communication across lifespan. Letter grading.

151. Child Welfare Policy in America. (4) Lecture, three hours. Limited to juniors/seniors. Examination of public child welfare policy. Review of social policies and programs that impact children. History of social policies and programs for children, including discussion of orphanages, foster care, and adoptions. Transformation of public child welfare system into child protection system. Impact of welfare reform on child policies and programs in the U.S. Major programs designed to provide safety net for disadvantaged children. Role of advocacy in promoting changes in policy, from field working, foster care, stamp, child care, child support, and children’s allowances. Program of research and analysis in this area. Overview of social policies and programs that impact children in the U.S. Examination of comparative policies in other countries. P/NP or letter grading.

162. Health Policy and Services. (4) Seminar, three hours. Limited to juniors/seniors. Contemporary issues in healthcare financing and delivery and historical perspective on these issues. Role of government in healthcare and ways controversy about this role continues to shape healthcare policy in health. Major public programs, notably Medicare and Medicaid, and their relationship to issues of access and cost for diverse vulnerable populations. Various public policy challenges, including health reform, and ways of thinking about their predicted impact, cost, and political feasibility, issues in care of persons with chronic illness and debate about public and private approaches to long-term care reform. Social work roles in healthcare policy and practice. P/NP or letter grading.

163. Prevention of Risky Substance Use and Related Problems. (4) Lecture, four hours. Limited to juniors/seniors. Contemporary patterns of drug use and related harms from fields of psychology, sociology, and communications. Sexual behavior and injection drug use, existing and promising technologies to reduce HIV transmission, and fiscal, cultural, ethical, and moral dilemmas in allocation of prevention resources. P/NP or letter grading.

165. Disability Policy and Services in Contemporary America. (4) Same as Disability Studies M130 and Gerontology M165.) Lecture, three hours. Limited to juniors/seniors. Growing numbers of people of all ages with disabilities are leading active and productive lives in American communities. Many others are struggling to lead 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 do mandates 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.

181. Nonprofit Sector, Social, and Civil Society. (4) 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 and economic functions of the nonprofit domain and its relationship to legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries. P/NP or letter grading.

189H. Honors Contracts. (1) Tutorial, three hours. Honors content noted on transcript. P/NP or letter grading.

194. Internship Seminars: Social Welfare. (1) Seminar, three hours; outside study, nine hours. Tutorial, three hours. Supervised individual research or investigation under guidance of faculty mentor. May be repeated for credit with topic change. Letter grading.

199. Community Internships in Social Welfare. (2 or 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP or letter grading.
202A-202B. Dynamics of Human Behavior. (4–4) Lecture, two and one half hours. Requisites: courses 201A and 201B. Basic pathologies, focusing on 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-203C. Integrative Seminars. (4–4–4) Seminar, two and one half hours. Intensive courses that bring together theory and practice of social work in variety of topic areas relevant to profession. Includes identification of problem areas and provides experiences requiring further examination. S/U or letter grading.


M206A. Homelessness: Housing and Social Service Issues. (4) [Same as Urban Planning M270.] Lecture, discussion, and outside study—90 minutes and 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, 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. Weighting and carrying out evidence-supported practices based on differential assessment of people and their situations, with particular focus on following intervention approaches: case management, motivational interviewing, cognitive, task-centered, and solution-focused therapies, as well as interventions appropriate for family functioning, small group processes, and environmental modification (advocacy and organizational). Continued evaluation of outcomes. Letter grading.

214A. Foundations of Social Work Policy. (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. Building on foundations of social welfare history and policy development, selected case studies illustrating issues from early colonial settlements to present day. Specific events and important individuals that have influenced public policy affecting vulnerable populations, such as women, children, the aged, 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. Building on foundations of social welfare history and policy development, selected case studies illustrating issues from early colonial settlements to present day. Specific events and important individuals that have influenced public policy affecting vulnerable populations, such as women, children, the aged, the poor, and other diverse populations. Examination of role of social research in informing social welfare policy. Letter grading.

223. Seminar: Social Work Profession. (2) Seminar, two hours. Nature and role of social work in contemporary society; relationships with other professions; probable future trends in profession; social work ethics and values; professional power; professional responsibilities; professional family and community collaboration; profession’s role in solving social problems. Seminar grading.

229A. Craft of Social Welfare Scholarship I. (4) Lecture, two and one half hours. Corequisite: courses 229A. 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 now 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 229B. 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 research literature on specific researchable question to deepen student understanding of existing knowledge on topic and to locate important gaps in knowledge to explore. Discussion of different methods of summarizing research literatures, identifying seminal studies, and interpreting contradictory findings. Regular meetings to discuss ongoing work and to encourage students to review their work with their faculty advisors and/or other mentors with expertise in their problem areas. Letter grading.

229C. Craft of Social Welfare Scholarship III. (2) Lecture, 90 minutes; outside study—half hour. Enforced requisite: course 229B. Limited to PhD students. Focus on craft of scholarly writing for publication to help students develop effective narrative, develop research questions, and hypothesis formulation. Development of research design and theory and research design. Measurement, sampling procedures, and basic descriptive statistics. Letter grading.

231A. Advanced Social Work Practice with Couples and Families. (4) Lecture, two and one half hours; outside study—half hour. Application of theories and techniques to develop framework for couples and family social work practice. Examples will be drawn from couples and families who may include developing relationships for those struggling with mental illness; supportive interventions for family members of impaired or frail elders; and specific concerns for parents of children with special needs affected by the legal system, or for individuals who have experienced substances abuse, domestic violence, sexual difficulties, and more. S/U or letter grading.

231B. Advanced Social Work Practice. (4) Lecture, two and one half hours; outside study—half hour. Corequisite: required social work practicum. Advanced-level, critical analysis of theories, concepts, and principles underlying social casework practice. Examples will be drawn from specific conditions affecting individuals and groups and to diagnostic knowledge and competence required in rehabilitation and prevention. S/U or letter grading.

231E. Advanced Social Welfare Practice: School Social Work. (4) Lecture, two and one half hours; outside study, nine hours. Integration of theory and practice as they pertain to role of social workers in school settings. Biopsychosocial/ecological assessment of students (including, but not limited to, differences due to ethnic and/or cultural diversity and to students who are learning handicapped), ecological intervention strategies, collaboration with multidisciplinary teams, and role of liaison between pupils, family, school, and community. Use of discussion, videos, current literature, and case presentation to explain school social workers as change agents. 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. Course work required for completion. Advanced-level, critical analysis of key contributors, essential concepts, core theories, current controversies, and recent research findings in contemporary cognitive-behavioral theories and methods. Letter grading, or special presentation to explain cognitive-behavioral perspective: specific cognitive and behavioral assessment methods and intervention techniques and their typical applications; contextual considerations, including human diversity and other
sociocultural and developmental factors, in arriving at case conceptualizations and treatment plans. 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, integrative analysis of roles and responsibilities held by social workers in the treatment of substance abuse. Focus on emerging issues related to substance abuse treatment, especially as they occur within context of relationships. 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. Designed to provide students with grounding in social work practice with adults in mental health settings. Emphasis on evidence-based approaches to providing services to pervasive and persistent mental illness. Exploration of strengths-based recovery-oriented approaches that are consistent with knowledge of neurobiology and brain development. 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 case-based approach, examination of variety of clinical and community settings and tasks, and the use of 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. Advanced Social Welfare Practice: Children, Adolescents, and Families. (4) Lecture, and two and one half hours outside study, nine hours. Corequisite: required social work practicum. Designed to provide students with building blocks for independent scholarship and further development of social work and case management skills in context of public child welfare practice. Clinical case management experiences that occur independent of practicum hands on learning necessary skills to address community problems using best available data by applying course concepts to student projects. S/U or letter grading.

231Q. Advanced Social Welfare Practice: Psychotherapeutics. (4) Lecture, two and one half hours. Focus on emerging patterns of physical, economic, and social justice in communities. How to use geographic information systems (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 people to improve, sustain, or prevent decline of well-being. Because of their function these organizations have special attributes that distinguish them from other organizations. Examination of these attributes, theoretical perspective to study them, and analysis of factors that shape nature of work they do. Explanation of determinants of relationships between workers and clients by looking at such variables as policy environment, values and mission, internal structure, service technology, reward structure, organizational responses to staff and client diversity, and power relations between workers and clients. S/U or letter grading.

241I. Advanced Social Welfare Practice: Grant Writing. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Process of grant writing, with emphasis on learning necessary skills to construct functional grant proposals. Application of problem-solving knowledge to development of human service grants. Various steps in writing grant proposals and opportunity to design/prepare grant proposals. S/U or letter grading.

241J. Advanced Social Welfare Practice: Community Practice. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Designed to deepen student knowledge of community practice methods and empirical base that supports them. Methods in field of social welfare, policy, practice, and context related to major community practice approaches in context of evidence-based philosophies and processes. Development of skills to address community problems using best available data by applying course concepts to student projects. S/U or letter grading.

241K. Advanced Social Welfare Practice: Policy Practice. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Methods of social work policy practice and policy advocacy as problem-solving process. Analysis of consequences of existing social policies, and use of different advocacy tools/techniques to gain support for policy change. S/U or letter grading.

242. Resilience, Risk, and Thriving among Children and Families. (4) Lecture, two and one half hours. Core course for Child and Family Well-being area of concentration. Introduction to advanced study of child and family well-being from social work perspective. Conveys seminal knowledge of key settings and experiences within them—that impact children and family functioning. Drawing from resilience theory and empirical research, review of contexts and communities, particularly for marginalized populations, development of alternative policies, and use of different advocacy tools/techniques to gain support for policy change. S/U or letter grading.

249A-249B. Foundations of Scientific Inquiry I, II, III, IV (4-4-4-4) Lecture; three hours; outside study, nine hours. Corequisite: required social work practicum. Development of critical thinking and problem solving skills. Utilization of course concepts to scientific inquiry and understanding and evaluation of results and effects of research. Letter grading.

249C. Foundations of Scientific Inquiry C. (1) Lecture; three hours; outside study, nine hours. Corequisite: required social work practicum. Development of critical thinking and problem solving skills. Utilization of course concepts to scientific inquiry and understanding and evaluation of results and effects of research. Letter grading.

249A. (Formerly numbered 249.) Lecture; three hours; outside study, nine hours. Corequisite: required social work practicum. Development of critical thinking and problem solving skills. Utilization of course concepts to scientific inquiry and understanding and evaluation of results and effects of research. Letter grading.

249B. (Formerly numbered 249B.) Lecture; three hours; outside study, nine hours. Corequisite: required social work practicum. Development of critical thinking and problem solving skills. Utilization of course concepts to scientific inquiry and understanding and evaluation of results and effects of research. Letter grading.

249C. (Formerly numbered 249C.) Lecture; three hours; outside study, nine hours. Corequisite: required social work practicum. Development of critical thinking and problem solving skills. Utilization of course concepts to scientific inquiry and understanding and evaluation of results and effects of research. Letter grading.
249C. (Formerly numbered 248A) Requisites: courses 249A, 249B. Experimental and quasi-experimental approaches in intervention research, ways of enhancing internal, external, and statistical conclusion validity and inferring causality.

251A. Advanced Social Welfare Practice: Domestic and Sexual Violence. (4) Lecture, two and one half hours. Designed for second-year MSW students in macro and clinical social work. One of the most pervasive aspects of violence against women and girls in their homes, workplaces, and communities provided. Exploration of macro- and micro-level factors in social work practice to address impact of violence on communities and individuals. Letter grading.

251B. Advanced Social Welfare Practice: Military Social Work. (4) Lecture, two and one half hours. Designed for second-year MSW students. Foundational understanding of contemporary issues being experienced by U.S. service members, veterans, and their families, including the longest wars in U.S. history. Examination of family life cycles and military policy, programs, and practices in context of both social work theory and research, as basis for military social work practice at direct service and policy practice levels. Vicarious trauma, care for caregivers, and provider self-care also addressed. S/U or letter grading.


258. Field Placement in Social Welfare. (2) Discussion, three 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/measurement to graduate students engaged in conducting research in broad array of fields that comprise social sciences. Letter grading.


285E. Research in Gerontology. (4) Lecture, three hours. Overview of research in aging. Development of research questions, selecting appropriate theoretical frameworks, conducting reviews, selecting appropriate research design, identifying sampling methods. Special considerations in aging research, including sampling, questionnaire design, and recruitment. Letter grading.

285F. Research in Health. (4) Lecture, three hours. Research in area of health policy and services. Discussions of readings about range of research from field's health policy and health care research. Design issues, design of research instruments, analysis of strengths and limitations of current approaches to health services research, consideration of alternative roles for social work practitioners in arena of health services. Letter grading.


285H. Program Evaluation Research. (4) Lecture, three hours. Discussion of differences and similarities between evaluation and other research, alternative program evaluation methods, roles and limitations of evaluation research in real world, development of proposals for feasible program evaluation research. Letter grading.

285I. Research in Youth Populations. (4) Lecture, three hours. Research methods as applied to problems, issues, and interventions pertaining to youth populations. Instruction and experience in applying experimental and quasi-experimental designs, survey research methods, ethnographic methods, single-subject designs, and observational methods. Operational definition of variables and selection and design of appropriate measures for research with children and adolescents. Letter grading.

286A. Survey of Research Methods. (4) Seminar, three hours. Basic concepts underlying research methods. Content includes theoretical and conceptual approaches to research 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 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.

286C. Research Internship. (4) Fieldwork, four hours. Supervised study and training through participation in on-going research project or one initiated by students and carried out under faculty supervision, enabling students to develop research skills. S/U or letter grading.

290A-290B-290C. Seminars: Social Work. (4–4–4) Seminar, three hours; outside study, nine hours. Se- ries of seminars dealing with trends in social work and social welfare, with focus on current social problems affecting individuals, groups, and communities and new patterns of intervention based on recent demonstrations and applications. 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 system focusing on gangs, prison organization, reform, and research 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 and issues through U.S. and globally. Examination of health disparities that exist within broad conception 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. Philosophy and policy applications of harm reduction approaches to legal (including prohibition) and non-protective, non-proactive techniques 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.

M280I. Children with Special Healthcare Needs: Systems Perspective. (4) Same as Community Health Sciences M240L. Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices that have evolved to identify, assess, and meet special needs of children and adolescents with developmental disabilities or chronic illness and their families. Letter grading.

M290J. Child Welfare Policy. (4) Same as Public Policy M212J. Lecture, three hours. Development of social policy as it affects 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.

M290K. Mental Health Policy. (4) Same as Public Policy M213K. Lecture, three hours. Examination of evolution of social policy and services for mentally ill, with emphasis on political, economic, ideological, and sociological factors that have shaped the mentally ill and services they are provided. S/U or letter grading.

M290L. Poverty, Poor, and Welfare Reform. (4) Same as Public Policy M214 and Urban Planning M246L. Lecture, three hours. Major policy and research issues concerning poverty and social welfare policy directed toward poor in U.S. S/U or letter grading.

M290M. Health Policy. (4) Same as Public Policy M215M. Lecture, three hours. Development of an infrastructure to support needs of children and families. S/U or letter grading.
SOCIETY AND GENETICS, INSTITUTE FOR

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 different ways of knowing in the human and life sciences are explored, interrelated, and applied. Core and capstone courses emphasize problem-based learning about pressing issues that inextricably link society, culture, and biology, such as medical privacy rights, gene patents, regulation of stem cell research, and questions of race, gender, and identity.

Programmatically, the majors consist of required elements that develop critical thinking skills, knowledge, and excellence in written and spoken communication; elective concentrations that allow students to focus on a particular emerging research area at the intersection of biology and society; and extracurricular involvement in academic research and corporate/community internship. The mission is to educate students who become leaders in diverse areas such as law, medicine, humanities, social sciences, and biological sciences, and to have them interact and work together to form a deep understanding of the issues at the intersection of human social systems, evolutionary biology, and genetics.

The minor in Society and Genetics provides undergraduate students with the opportunity to understand and probe the complex problems and possibilities presented by modern genetics, with special attention to their social context and content. Given the dynamic interaction between genetics and the social world.
in which it is embedded, the minor is of necessity multidisciplinary and emphasizes a collaborative cross-disciplinary approach to instruction in the core courses of the minor and exposure to a wide range of disparate scholarship through elective courses available in such areas as anthropology, biology, history, philosophy, public policy, and sociology.

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 during the beginning of spring quarter of their sophomore year. Applications submitted per 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.

Human Biology and Society 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 1, 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 197; and five courses (at least one of which must be a society and genetics course) from one of the following concentration areas:


See below for additional course options in the subfocus area of population genetics.

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 103AL, 106, 107, 158, or 168
Molecular Biology and Genomics: Molecular, Cell, and Developmental Biology 144, 172, and one course from CM156, Human Genetics CM124, 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

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 social evidence
- Demonstrated broad comprehension of mathematical, physical, and life sciences as preparation for medical school
- Work well in multidisciplinary teams
- Skills at communicating across disciplines and leveraging knowledge from multiple perspectives
- Demonstrated proficiency in at least one area of concentration at the interface between biology and society
- Integration of ethical, legal, and societal concerns in planning, conducting, and assessing research
- Use of societal and biological information to critically assess complex real-world problems and to employ interdisciplinary skills to help solve them
- Use of societal and biological information to critically assess complex real-world problems and to employ interdisciplinary skills to help solve them

Admission
Admission to the Human Biology and Society BS major is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major.

Students must apply for major standing at the beginning of spring quarter of their sophomore year. Applications submitted after the spring quarter deadline are considered during fall quarter of the junior year only as space in the program permits. No applications are considered after fall quarter of the junior year.

Premajor standing is not required to apply for the major. A copy of the major application is available on the department website.

Human Biology and Society 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, 14B, 14BL, 14C, 14D (or 20A, 20B, 20L, 30A, 30AL, 30B); Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 10 or 13, or Mathematics 31A, 31B, 32A, and Statistics 10 or 13; Physics 1A, 1B, 1C, 4AL, 4BL (or 5A, 5B, 5C); 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, Molecular, Cell, and Developmental Biology 40, 50, 60, Philosophy 4, 6, 8, 22 or 22W, Public Policy 10A, Society and Genetics 85, Sociology 1, M5.

Students must also complete one of two life sciences sequences—either Life Sciences 1.2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence.

Each course must be taken for a letter grade, and students must complete all premajor courses with a cumulative minimum grade-point average of 2.5.

Transfer Students
Transfer applicants to the Human Biology and Society BS major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 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, 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; four 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:


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, 126P, Ecology and Evolutionary Biology 100, 116, 120, 121, C126, 129, 130, C135, 175, 176

Microbiology and Immunology: Microbiology, Immunology, and Molecular Genetics 101, C185A, and one course from 103AL, 106, 107, 158, or 168

Molecular Biology and Genomics: Molecular, Cell, and Developmental Biology 144, 172, and one course from CM156, Human Genetics CM124, 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 of A 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 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 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, culture, and 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.

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.


Society and Genetics Institute for Science 689

Society and Genetics, Institute for / 689
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 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, and reproductive technologies. 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 analyze factors, including key dimensions of diversity (class, gender, urban/rural development) that influence how populations variably encounter, experience, understand, and cope with sickness. Examination of relationships between Western medicine and traditional and alternative approaches to healing. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an extension of 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.

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). Also 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. Consent of instructor required 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 evolution of genetics and society. Basic science concepts presented through real-world issues and research problems. 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 numbered 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 identity, active and reproductive purposes. Exposure to medical genetic 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 requisites: course M72A or M72B. Course 105A is not requisite to 105B. Introduction to study of epistemology to train students to recognize different ways of knowing what we know. In life and human sciences, critical examination of methods, social study, measure, and experiment. Exploration of how they are manifest in technologies that cut across disciplines to help students evaluate explanatory models, standard methodologies, and appropriate social and scientific applications. Examinations may include DNA sequencing, tissue cultures, bioinformatics, statistics, 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. Photography is used in sciences and medicine (e.g., X-ray photography), as well as in art and forensics. Letter grading.

105B. Problems of Identity at Biology/Society Interface. (4) Lecture, three hours; discussion, one hour. Requisites: course 101 or Anthropology 1, or Life Sciences 4 and 23L, or 7C (each may be taken concurrently). Course 105A is not requisite to 105B. Exploration of problems of identity concern how we are inherently biological and social. Topics vary and may include race, obesity and nutrition, autism, deafness or disability, gender, intelligence, or sexuality. Topics contain social, cultural, political, emotional, and psychological complexity, so difficult to define, and so wrapped up in conceptions of what it is to be human, that it has spawned research from variety of perspectives in biological and human sciences. Some research topics vary from scientific and social perspectives—some competing, some complementary—that intersect on one particular topic. Examination of how researchers from social/ historical and biological perspectives attempt to construct topic as intellectual problem, methods they bring to bear on it, and findings they have produced. Letter grading.

108. Human Biology, Genetics, and Society. (5) Lecture, three hours; laboratory, two hours. Limited to senior Human Biology and Society majors. Lectures, readings, discussions, and development of collaborative and collaborative culminating project. Group-based research project in mapping and mapping contemporary controversy at intersections of human biology, genetics, and society. Reading of large amounts of material to make sense of both scientific concepts and social and political issues, with original research project and presentational requirement. Letter grading.

120. Genetics and Human History. (4) Lecture, three hours. Enforced requisite: course 101 or Life Sciences 4. Advancements in genomic research have rapidly transformed traditional archaeological and historical investigations of human past. Drawing from 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 Neanderthals, first migration to North America, ethnic expansion throughout Europe, and genetic legacy of ancient human groups. Importance of political and ethical issues surrounding genetic research on history of humans, including challenges of using ancient and modern DNA, population genetic theory, and ethical implications of genetic research. Letter grading.

121. Race, Science, and Citizenship. (4) Seminar, three hours. Early development of scientific method of 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 are embedded in Western science compare with indigenous or local knowledge. Critical examination of research is motivated by competing assumptions of racial hierarchy and equality. Examination of governments' use of science to classify racially inferior and contami- nated foreigners as threats to sociocultural order. Ex-


131. Social and Historical Study of Information, Software, and Networks. (4) Lecture, three hours. Introduction to critical study of information technology, software, and networks. Thematic focus on historical, social, and technical aspects of IT, networks, peer-to-peer networks, software, and networks. Historical and theoretical focus on publics and public spheres, network theory, and power. Emphasis on understanding the social and historical aspects of technology. Focus on particular attention to relationship of information technology to scientific and engineering practices and life sciences. Letter grading.

M132. Food Cultures and Food Politics. (5) Same as English M118F and Food Studies M132). Lecture, four hours; discussion, one hour (when scheduled). Requisite: English Composition 3. Introduction to interdisciplinary field of food studies, with focus on how literature, art, science, writing, and politics intersect to address political dimensions of food and agriculture in specific contexts. P/NP or letter grading.

M133. Environmental Sociology. (4) Same as Environment 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 (such as pollution, waste disposal, sustainability, and global warming). P/NP or letter grading.

134. Food and Health in Global Perspective. (4) Lecture, three hours. Study problematizes and adds depth to common-sense understandings of what is meant by health, especially in terms of diet; relationship between food practices and evolutionary biology, as well as particular environments of societies, cultural systems, histories, and their health implications; how major global foods have come to their dominance and consequences for health; and influences of food production, distribution, and preparation on health. Letter grading.

M140. Hormones and Behavior in Humans and Other Animals. (4) (Same as Anthro M128R and Biological Science M113B.) Lecture, three hours; discussion, one hour. Examination of hormones, and physiology and genetics involved in hormonal processes and function. Interactions among hormones, neural systems, environmental factors (e.g., sex, stress, food availability, environmental factors). Sexual behavior, reproduction, and lactation, parental behavior, evolution and migration, stress, social behavior, dominance relationships, aggression, chemotaxis and other behaviors. Critical examination of critiques of primary literature on behavioral endocrinology about humans and other species. Consideration of spectrum of noninvasive to highly invasive endocrine sampling methods, and effects of research. Which research questions can be answered in laboratory and field, as well as ethics of hormonal studies and their implications for humans and other animals. Letter grading.
GWAS and genomic/next generation sequencing, satellites, nuclear genes, Y-chromosome, as well as comparative genomics. Utility and appropriate-ness of various markers considered for different re- search questions, e.g., mitochondrial DNA, microsat-ellite marker, Y-chromosome, as well as GWAS and genomic/next generation sequencing platforms, and epigenetic markers. Discussion of methods used in lab work, including sampling techniques, collection techniques, wet lab tech- niques, software analysis packages, and statistical analyses. Introductory-level understanding of ge- netics and evolution; study further illuminates areas in molecular biology relevant to case studies analyzed.

Letter grading.

M144. Stress and Society: Biology and Inequality. (4) (Same as Sociology M144.) Lecture, three hours; discussion. Topics in the behavioral and social sciences that address how stress relates to health disparities, one of the most pressing problems of society, through investigation of effects of socioeconomic status (SES) on health and disease, using specific lens of stress biology. Topics include introduction to fundamentals of physiology of stress, integration of literature on poverty and SES with studies on physical illness and illness consequences, and introduction of concepts of the life course by following stress biology through childhood development and into adulthood. Letter grading.

Politics of Heredity. (4) Seminar, three hours. Exploration of intersection of politics and genetics in liberal democracy; discussion of recent developments, possible future directions, and current debate; and policy. Topics include international approaches to finance and money; and social and historical approaches to finance and money. Legal and policy issues emerging from new biotechnological develop-ments. Examination of reproductive issues, legal and political discourse of rights. Historical perspective of how law, and policy have treated our bodies. Legal and policy issues emerging from new biotechnological develop-ments.

Science and Popular Movements: Controver-sy, Conflict, and Collaboration. (4) Seminar, three hours. Historical and philosophical analysis of myth of separation of science and people. Controversies in genetics and biotechnology, medical research, and environmentalism show examples of popular science where scientists and nonscientists interact in sur-prising ways; when nonscientists challenge scientists’ authority and knowledge, where scientists act like so-cial movement, and where scientists and regular people work together, sometimes cooperatively and sometimes competitively, to generate knowledge.

Consideration of some implications and contradic-tions for politics and knowledge production that emerge from popular science. Letter grading.

Ethics in Health and Research. (4) Lecture, three hours. Letter grading.

Introduction to Bioethics. (4) Lecture, three hours. Should one be allowed to choose sex of ba-bies or whether they will be tall enough to be next basketball star? Should terminally ill be helped to die? Do parents have a right to decide about their child’s education? Examples of ethical questions that arise in prolonging life decisions in medicine. Legal and ethical considerations in end-of-life treatment and care. Consideration of concepts such as freedom, kinship, dignity, advocacy, equal rights, and good life to challenge we think of modern human society, the human condition, and how we live our lives. P/NP or letter grading.

M166. Future of Humanity: Bioethics of Health and Disability. (4) (Same as Disability Studies M166.) Lecture, three hours; discussion, one hour. Should par-ents 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 forgivable? Is a person who has a disability entitled to the same respect as a normal human being? Are disabilities a source of pride or a source of shame? Consideration of some implications and contradictions for politics and knowledge production that arise in popular science. Letter grading.

141. Nature versus Nurture: Genes and Envi-ronment. (4) Seminar, three hours. Comprehensive and practical examination of emerging science of gene-environment interaction. Discussion of primary com-ponents of field, including role of metabolic pathways in neurological disorders, and role of environ-ment of influences in human disease. Exploration of selected hot topics in field such as im-portance of epigenetics and of microbiome. Course is highly used for the further study in medical field or public health. Letter grading.

M142. Primate Genetics, Ecology, and Conserva-tion. (4) (Same as Anthropology M128S.) Seminar, three hours. Focus on research on primates and monkeys at different geographic scales, using readings from primary literature on primate genetics, ecology, and behavior. Study of paternity and kinship, in-trapolational variation, population genetics, bioge-ography, systematics, phylogenetics/phylogenomics, and comparative genomics. Utility and appropriate-ness of various markers considered for different re- search questions, e.g., mitochondrial DNA, microsat-ellite marker, Y-chromosome.
accounts would encourage or discourage people from manipulating their genetic inheritance. Consideration of what is new in new genetics. Current discussions of promise and peril of genetics in relation to society. Culminating paper required. May be repeated once for credit with topic change. Letter grading.


195CE. Community or Corporate Internships in Society and Genetics. (4) Tutorial, to be arranged; 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.

196. Research Apprenticeship in Society and Genetics. (2) Tutorial, six hours. Limited to juniors/seniors. Entry-level research opportunities in society and genetics under guidance of faculty mentor. May be repeated for maximum of 4 units. Individual contract required. P/NP or letter grading.

197. Individual Studies in Society and Genetics. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter (paper or other product) 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: submission of written proposal outlining study or research to be undertaken due to undergraduate advisor 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 analysis by student and instructor must be presented to department. 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 apprentice须 actively engage and supervise of regular faculty member responsible for credit for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

Professors
Victor Aguiar, PhD
Walter R. Allen, PhD
Francis R. Anderson, BA
César J. Ayala, PhD
Philippe I. Bourgois, PhD, in Residence
Jennie E. Brand, PhD
Rogers Brubaker, PhD (UCLA Foundation Professor)
Steven E. Clayman, PhD
Jessica L. Collett, PhD
Rebecca J. Emigh, PhD
Laura E. Gómez, JD, PhD
Rubén Hernández-León, PhD
Patrick C. Heuveline, PhD
Darrell M. Hunt, PhD
Gail Kligman, PhD
Hannah L. Landecker, PhD
Ching-Kwan Lee, PhD
Omar Lizardo, PhD (LeRoy NeimanTerm Professor)
Cecilia Menjívar, PhD (Dorothy L. Meyer Professor of Social Equities)
Pedro A. Noguera, PhD
Vilma Ortiz, PhD
Anne R. Pebley, PhD
Jeffrey Prager, PhD
Abigail C. Saguy, PhD
Judith A. Selzter, PhD
Tanya J. Stevens, PhD
Katherine Stone, JD (Arjay and Frances Fearing Miller Professor of Law)
Meghan M. Sweeney, PhD
Christopher C. Tilly, PhD
Stefan Timmermans, PhD
Roger Waldinger, PhD
Min Zhou, PhD (Walter and Shirley Wang Professor of U.S./China Relations and Communications)
Lynne G. Zucker, PhD

Professors Emeriti
Jeffrey C. Alexander, PhD
Rodolfo Alvarez, PhD
Ronald M. Andersen, PhD (Fred W. and Pamela K. Wasserman Professor Emeritus of Health Services)
Kenneth D. Bailey, PhD
Richard A. Berk, PhD
Philip Bonacich, PhD
Diane W. Champagne, PhD
Robert M. Emerson, PhD
Michael S. Goldstein, PhD
Oscar Gusky, PhD
David J. Haile, PhD
M. Nicolle Hart, PhD
John C. Heritage, PhD
John E. Horton, PhD
Jack Katz, PhD
Barbara B. Lal, PhD
Ivan H. Light, PhD
David E. Lopez, PhD
Michael Mann, PhD
Robert D. Mare, PhD
William M. Mason, PhD
Ruth M. Milkman, PhD
Jerome Rabow, PhD
William G. Roy, PhD
Emanuel A. Schegloff, PhD
Melvin Seeman, PhD
Ivan Szelenyi, PhD
Warren D. Tenhouten, PhD
Donald J. Treiman, PhD
Maurice Zeltlin, PhD

Associate Professors
Marcus A. Hunter, PhD (Scott WaughEndowed Professor of Social Sciences)
Ka-Yuet Liu, PhD
Aaron L. Panofsky, PhD
Meredith Phillips, PhD
Gabriel Rossman, PhD
Edward T. Walker, PhD

Assistant Professors
Stefan Bargheer, PhD
Karida L. Brown, PhD
Lauren M. Duquette-Rury, PhD
Jacob S. Foster, PhD
S. Michael Gaddis, PhD
Jeffrey J. Guhin, PhD
Kevan K. Harris, PhD
Aliza R. Luft, PhD
Giovanni Rossi, PhD

Scope and Objectives
Sociology is the study of the organization, dynamics, and consequences of social life. The scope of the discipline is as broad and diverse as social life itself. Sociologists study social interaction and relationships, organizations and institutions, communities and whole societies. The methods of sociological investigation are also varied: sociologists immerse themselves in the daily life of groups, interview group participants, examine recorded interaction, interpret historical documents, analyze census data, and conduct large surveys. The methods and concepts of sociology yield powerful insights into the social processes shaping lives, problems, and possibilities in contemporary society. The capacity to identify and understand these processes—a capacity that C.W. Mills called the “sociological imagination”—is valuable preparation for personal and professional participation in a changing and complex world.

In addition to contributing to a liberal arts education, the Sociology major prepares individuals for a broad range of career options and graduate and professional studies. The analytic perspectives and skills gained in the major are a foundation for careers in law, social welfare, urban planning, business, education, and public health. The major also supplies a foundation for students intending to pursue graduate work in sociology and related fields. Employment opportunities available to the graduate with a Bachelor of Arts degree in Sociology also include work in community service organizations and health agencies, government service, and human resources.

The Department of Sociology faculty includes internationally renowned scholars who address topics ranging in scope from the organization of face-to-face interaction to the consequences of globalization. The department boasts outstanding teachers—five of whom have won Distinguished Teaching Awards—and excellently trained teaching assistants, many of whom have also won awards. The select honors program has a record for training students in the fundamentals of research and generating honors theses of substantial accomplishment.

The PhD in Sociology usually leads to a career in research and/or teaching. Although most sociologists are employed by universities, there are increasing career opportunities in government and other nonuniversity 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

Sociology 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, M124A, 191H, or Statistics 112; (3) one course from each of the following core areas: (a) interactions—Sociology 111, M124A, CA125, 126, 130, 132, 133, 134, or 152, (b) institutions and social processes—course 116, 121, 143, 151, 158, 172, 173, M174, M175, M176, or 181B, (c) power and inequality—course M115, 122, 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 bachelor’s degree in sociology and a specialization in Computing.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Sociology offers Master of Arts (MA), Candidate in Philosophy (CPHIL), and Doctor of Philosophy (PhD) degrees in Sociology.

Sociology

Lower-Division Courses

1. Introductory Sociology. (5) Lecture, four hours; discussion, one hour. Survey of characteristics of social life, processes of social interaction, and tools of sociological investigation. P/NP or letter grading.

M5. 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. P/NP 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 or P/NP 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 sociology of racism through video clips, social scientific texts, essays by prominent 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. Socio-cultural and macro-level 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-M72CW. Sex from Biology to Gendered Society. (6–6–6) (Same as Communication M72A-M72B-M72CW, and Sociology and Genetics 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, 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 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 not covered 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 have good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Development of Sociological Theory. (5) Lecture, three hours; discussion, one hour. Comparative survey of basic concepts and theories in sociology from 1850 to 1920. P/NP or letter grading.


106A. Field Research Methods I. (6) Lecture, two hours; discussion, two hours; fieldwork, eight to 10 hours. Research practice 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 preliminary data analysis. Fieldwork and extensive field notes required. Letter grading.

106B. Field Research Methods II. (6) Lecture, two hours; discussion, two hours; fieldwork, 10 hours. Requisite: course 106A. Introduction and analysis of both field notes and unstructured interview data from student field placement. Use of techniques of qualitative data analysis, including qualitative coding, analytic memoing, and grounded theory methods, to analyze these materials and to write ethnographic paper. Letter grading.

110. Sociological 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 in constructing and testing replicable, explanatory and historical event. P/NP or letter grading.

111. Social Networks. (4) Lecture, three hours; laboratory, one hour. Analysis of how social networks create social structure, how social actors utilize them, and how social actors and social structures are employed in organization of conversational interaction, such as turn-taking organization, organization of repair, and some basic sequence structures with limited expansions. M124B. Requisite: course M124A. Consideration of some more expanded sequence structures, some more complex sequence structures, and overall structural organization of single conversations.

125. 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 number of major institutional sites in contemporary society. Setting is limited but may include emergency situations, police and courts, medicine, news interviews, and political oratory. Concurrently scheduled with course C258, P/NP or letter grading.

126. Study of Norms. (4) Lecture, three hours; 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 thought and cultural forms of knowledge. Study of ways in which bodies of knowledge and cultural styles are produced, used, and transformed in everyday, organizational, and extraorganizational 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 conditions; relations between thought, sensations, and emotions; self and emotions; social construction of emotions. P/NP or letter grading.

129. Sociology of Time. (4) Lecture, four hours; discussion, one hour. Conceptualizations of time seen from scientific, philosophical, historical, and sociological perspectives; “cyclical” and “linear” time in primitive, ancient, and medieval societies; ritual, the sacred, and experience of the eternal; structuring of urban, modern, and postmodern societies by clock, calendar, and schedule; future value orientation and notion of progress; time, labor, and social domination. P/NP or letter grading.

130. Self and Society. (4) Lecture, three hours; discussion, one hour. Examination of social processes shaping experience, definitions of self and personal identity. P/NP or letter grading.

131. Careers in Sociology. (4) Lecture, three hours. Limited to juniors/seniors. Examination of possible 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 contribution of sociologists to theory and research in social psychology, including theories of social contact, conformity and deviation, and reference groups; and interaction process. P/NP or letter grading.


134. Culture and Personality. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed for juniors/seniors. Theories of relationship of variations in personality to culture and group life, in primitive and modern societies, and influence of social role on personality. P/NP or letter grading.

135. Social Measurement: Concepts and Techniques. (4) Lecture, three hours; discussion, one hour. Devising and using effective measures and techniques of social research. P/NP or letter grading.

136. Death, Suicide, and Trauma. (4) (Same as Psychology M163S.) Lecture, three hours; discussion, one hour. Sociological analysis of incidence of violent
search paper to be presented to faculty members and how to frame and investigate one particular issue selected so students become familiar with commonly Mexico-U.S. context. Research topic of interest to work, 10 hours. Development of qualitative micro-study of immigration. P/NP or letter grading.

M144. Stress and Society: Biology and Inequality. (4) (Same as Sociology M144.) Lecture, three hours; discussion, one hour. Requisites: courses 20, 20, 101. Exploration of long-run historical trends in relationship between human health and social organization, drawing on historical, anthropological, demographic, and sociological concepts, theories, and data. P/NP or letter grading.

M145. Sociology of Deviant Behavior. (4) Lecture, three hours; discussion, one hour. Examination of leading sociological approaches to study of deviant and general survey of major types of deviation in American society. P/NP or letter grading.

M147A. Sociology of Crime. (4) Lecture, three hours; discussion, one hour. Sociological theories of social origins, organization, and meanings of crime and criminal behaviors. P/NP or letter grading.

M147B. Sociology of Criminal Justice. (4) Lecture, three hours; discussion, one hour. Examination of structures and routine decision-making processes of key criminal justice institutions, including police, courts, probation and parole, jails and prisons. P/NP or letter grading.


149. Youth, Trouble, and Juvenile Justice. (4) Lecture, three hours; discussion, one hour. Examination of structures and routine decision-making processes of juvenile justice system 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.

M150. Sociology of Aging. (4) (Same as Gerontology, 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.

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 immigration experience on ethno-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 Europeans, Africans, Mexicans, and Asians in the U.S., with emphasis on long-term cultural consequences of immigration. P/NP or letter grading.

M153. Chinese Immigration. (4) (Same as Asian American Studies M130C.) Lecture, three hours; discussion, one hour. Examination of Chinese immigration, with focus on international context, 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 lives of nations other than the U.S. P/NP or letter grading.

M155. Latinos in U.S. (4) (Same as Chicana and Chicano Studies M155A.) Lecture, three hours; discussion, one hour. Designed for seniors. Exploration of history and social conditions of Latinos in Los Angeles and nationally, with particular emphasis on their location in larger social structure and on comparisons with other minority groups. Topics include migration, family, education, and work issues. P/NP or letter grading.

156. Race and Ethnicity in American Life. (4) Lecture, three hours; discussion, one hour. Role of race and ethnicity in the U.S., including interplay between racial and non-racial phenomena. Special attention to comparison of African American and European American experiences and to transformation of Asian American and Latino communities and the nation generally, brought by renewal of mass migration in second half of the 20th century. P/NP or letter grading.

157. Social Stratification. (4) Lecture, three hours; discussion, one hour. Analysis of American social structure in terms of evaluational differentiation. Topics include criteria for differentiation, bases for evaluation, types of stratification, composition of classes, and consequences of stratification, and problems of methodology. P/NP or letter grading.

158. Urban Sociology. (4) Lecture, three hours; discussion, one hour. Description and analysis of urbanization and urbanism in the U.S. and world. P/NP or letter grading.

M161. Comparative American Indian Societies. (4) (Same as American Indian Studies M161.) Lecture, three hours. Requisite: course 1. Examination of processes by which gender is socially constructed. Topics include distinction between biological sex and sociological gender, causes and consequences of gender inequality, and recent changes in gender relations in modern industrial societies. P/NP or letter grading.

M162. Gender and Work. (4) (Same as Gender Studies M162.) Lecture, three hours; discussion, one hour. Requisite: course 1 or Gender Studies 10. Examination of processes by which gender is socially constructed. Topics include distinction between biological sex and sociological gender, causes and consequences of gender inequality, and recent changes in gender relations in modern industrial societies. P/NP or letter grading.

M164. Politics of Reproduction. (4) (Same as Gender Studies M164.) Lecture, three hours; discussion, one hour. Tite refers to intersection between politics and life cycle. Topics include social construction of gender and population, reproductive issues, politicization of mothers, motherhood, and mothering, surrogacy, and new reproductive technologies. Letter grading.

M165. Sociology of Race and Labor. (4) (Same as African American Studies M165 and Labor and Workplace Studies M165.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Examination of relationship between race, labor, and 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 organized 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.

168. Organizations and Society. (4) Lecture, three hours; discussion, one hour. Sociological analysis of organizations and their social environment. Introduction to basic theories, concepts, methods, and research on behavior of organizations in society. P/NP or letter grading.

169. Law and Society. (4) Lecture, three hours; discussion, one hour. Specific topics may include law in preindustrial and industrialized societies, legal relationships of contemporary social relations, participants' experiences of legal processes, lay perceptions of justice, social movements toward equal justice, roles of lawyers and judges, social impact of court decisions. P/NP or letter grading.

170. Medical Sociology. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Provides an overview of Sociology and other social sciences, as well as students preparing for health careers, with understanding of health-seeking behavior and inter-personal and organizational relations that are important to the concept and delivery of health services. P/NP or letter grading.
171. Occupations and Professions. (4) Lecture, three hours; discussion, one hour. Description and analysis of representative occupations and professions, with emphasis on contemporary U.S. P/NP or letter grading.

172. Entrepreneurship. (4) Lecture, three hours; discussion, one hour. Description and analysis of entrepreneurship, with special reference to historical origins, ideology, international comparisons, 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 major economic institutions of the U.S. P/NP or letter grading.

M174. Sociology of Family. (4) (Same as Gender Studies M174.) Lecture, three hours; discussion, one hour. Theory and research dealing with modern family, its structure, and functions, including historical changes, variant family patterns, family as institution, and influence of contemporary society on family. P/NP or letter grading.

M175. Sociology of Education. (5) (Same as Education M108.) Lecture, four hours; discussion, one hour. Study of how U.S. educational system both promotes socioeconomic opportunities and maintains socioeconomic inequalities: historical and theoretical perspectives, role of inequality in U.S. society; theories of educational attainment; in educational attainment: ways in which family background, class, race, and gender affect educational achievement and attainment; stratification between and within educational systems, educational inequality, family, health, attitudes, and social participation; educational policies to improve school quality and address socioeconomic inequalities. Letter grading.

M176. Sociology of Mass Communication. (4) (Same as Communication M147.) Lecture, four hours; discussion, one hour (when scheduled). Studies in relationship between mass communication and social organization. Topics include history and organization of major media institutions, social forces that shape production of mass media news and entertainment, selected studies in media content, and effects of media on society. P/NP or letter grading.

M178. Sociology of Caribbean. (4) (Same as African American Studies M178.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. History of Caribbean in society, with emphasis on colonialism, development, late development, race-making institutions and evolutionary process of race relations, nationalism and migration. P/NP or letter grading.

180A-180B. Special Topics in Sociology. (4 each) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Study of selected topics of sociological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit and may be applied as elective units toward Sociology major. P/NP or letter grading.

181A-181B. Sociology of Contemporary China. (4-4) Lecture, three hours; discussion, one hour. (4) Independent study, one credit. P/NP or letter grading. 181A. Exploration of 20th-century changes in China, including end of dynasties, Republican era, Communist Revolution, and market reform. Topics include transformation of Chinese social structure and institutions and everyday practices. Survey of changes and analysis of forces shaping contemporary China and global impact and current implications. 181B. Survey of changes in Chinese society from beginning of 20th century to present. Topics include social mobility and inequality, family and household, and population. Emphasis on China’s history and role in present. Focus on interaction of economic and political change plus family organization. Contrasts and similarities between China and West, China’s place in social scientific studies due to social organization that originated from studying Western societies.

182. Political Sociology. (4) Lecture, three hours; discussion, one hour. Contributions of sociology to study of politics, including analysis of political aspects of social systems, social context of action, and social bases of power. P/NP or letter grading.

183. Comparative and Historical Sociology. (4) Lecture, three hours; discussion, one hour. Requisite: course 183. Survey of major themes and historical studies in sociology. Various aspects of development of modes of thought, including development of nation-state, emergence of capitalism, industrialization, and population growth. Variation in contemporary society, viewed from variety of theoretical perspectives. 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 racial and class structures and dilemmas of economic and political development. Country and specific focus varies each term. 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 course lecture 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.


M191DC. CAPP Washington, DC, Research Seminars. (8) (Same as Communication M191DC, History M191DC, and Political Science M191DC.) Seminar, three hours; laboratory, 24 hours. Limited to CAPP Program students. Seminars for undergraduate students in Center for American Politics and Policy’s program in Washington, D.C. Focus on development and execution of original empirical research based on course experiences from Washington, D.C., and other 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.


191F. Undergraduate Seminar: Sociology of Globalization. (5) Seminar, three hours. Limited to juniors/seniors. Great extension of social relations across globe has occurred over last 50 years. What are causes and mechanisms of this process, how far has it transformed human societies, and how far will it go in future? Economic, cultural, political, and military aspects of globalization, with focus on extent to which global expansion of capitalism, nation-state system, and American imperialism reinforce or undercut each other, producing new lines of division and conflict across world. Reading, discussion, and development of culminating project. Letter grading.

191H. Honors Seminars Sociology. (4) Seminar, three hours. In-depth introduction to process of producing scholarly sociological research for students who intend to write undergraduate thesis for departmental honors. Letter grading.

191U. Undergraduate Seminar: Health and Inequality. (5) Seminar, three hours. Limited to juniors/seniors. During past century, social inequalities in health and survival were widening in the U.S. as in other developed societies. Broad overview of these trends and their causes. Reading, discussion, and development of culminating project. Letter grading.

191J. Undergraduate Seminar: Mexican Society. (5) Seminar, three hours. Selected topics on contemporary Mexican society and its participation in Mexican and global economy. Compare and contrast the Mexican economy to one that has undergone recent changes. Reading, discussion, and development of culminating project. Letter grading.

191K. Undergraduate Seminar: Cigarettes and Western Civilization—Sociology 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 and cigarette smoking 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 health consequences, and its demise as legitimate soft drug for modern urban people. Letter grading.


191M. Undergraduate Seminar: Social Ecology. (5) Seminar, three hours. Limited to juniors/seniors. Fundamentals of sociological approach to social ecology, also known as human ecology. Study of adaptation of population to its environment. Topics include density, maintaining personal space, space and territoriality, and effects of environment on humans. Reading, discussion, and development of culminating project. Letter grading.

C191N. Undergraduate Seminar: Urban and Suburban Sociology. (5) Seminar, three hours. Limited to juniors/seniors. Focus on urban and suburban sociology, also known as human ecology. Study of adaptation of population to its environment. Topics include density, maintaining personal space, space and territoriality, and effects of environment on humans. Reading, discussion, and development of culminating project. Letter grading.

191NY. Undergraduate Seminar: Urban and Suburban Sociology in New York City. (5) Seminar, eight hours. Limited to students in summer UCLA Travel Study Program. Cutting-edge urban issues in country’s largest city, including New York’s attempt to...
plan for city of 9.2 million, rebuilding of World Trade Center, Robert Moses (New York’s master builder), urban economic development, green New York, transportation systems, urban politics, house and architectural styles, including New York’s famous skyscrapers, historic preservation, crime and police departments, ghetto, education, urban poor, public housing, and search for affordable housing. Offered in summer only. Letter grading.


191P. Undergraduate Seminar: Politics of Reproduction (5) Seminar, three hours. Designed for undergraduate students and transfer students who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit. P/NP grading.

191Q. Undergraduate Seminar: Community and Corporate Internships in Sociology (4) Seminar, three hours. Limited to junior/seniors. Internship in community agency or business to be supervised jointly by Center for Community Learning and faculty adviser. Students meet on regular basis with faculty and weekly for reports of their experience. Normally only 4 units of internship are allowed. Individual contract with supervising faculty member required. P/NP or letter grading.

191RC. Community and Corporation Internships in Sociology (4) Tutorial, three hours. Limited to juniors/seniors. Introduction to internship field and techniques for viewing internship as meaningful activity. Emphasis on direct contact with empirical materials and development of observational and analytic skills. Reading, discussion, and development of culminating project. Letter grading.

191S. Undergraduate Seminar: Social Theory (5) Seminar, three hours. Limited to juniors/seniors. Introduction to classic theoretical approaches and historical perspectives. Development of a range of theoretical and research interests relevant to the study of sociological research. Emphasis on development of writing and research skills and on the presentation of findings.

191T. Undergraduate Seminar: War and Society (5) Seminar, three hours. Limited to juniors/seniors. Study of relationship between society’s military and its political, social, economic, and cultural organization in general, with particular attention to shock-based civic militarism characteristic of the West. Topics include honor, discipline, bureaucracy, ideology, guilt, total war, terrorism, and counterterrorism. Reading, discussion, and development of culminating project. Letter grading.

191W. 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.

194. Research Group Seminars: Sociology. (2) Seminar, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit. P/NP grading.

194DC. CAPPP Washington, DC, Research Seminars. (4) Same as History M194DC and Political Science M194DC. Seminar, four hours. Limited to CAPPP Quarter in Washington students and other students enrolled in UC Washington Center programs. Seminars for undergraduates 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 a 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 or Corporate Internships in Sociology (5) Tutorial, three hours. Limited to junior/seniors. Internship in community agency or business to be supervised jointly by Center for Community Learning and faculty adviser. Students meet on regular basis with faculty and weekly for reports of their experience. Normally only 4 units of internship are allowed. Individual contract with supervising faculty member required. P/NP or letter grading.

196E. Community and Corporation Internships in Sociology (4) Tutorial. Three hours; discussion, one hour. May be repeated for credit. P/NP grading.


198B. Tutorial, three hours; discussion, one hour. Requisite: course 198A. Limited to sociology honors program students. May be repeated for credit. Individual contract required. Letter grading.

202A-202B. Theory and Research in Sociology. (4–4) Lecture, two hours; discussion, two hours. Requisite: first-year graduate sociology students. Examination of interrelations of theory, method, and substance in exemplary sociological works, with analytical and skills-centered orientation. In Progress (202A) and S/JU or letter (202B) grading. Letter grading.

203. How to Write a Lot. (6) Seminar, three hours. Offered in fall. Designed to help graduate students develop regular and productive writing practices. Appropriate for students in their second year or beyond who have written one full draft of their MA paper written and want to revise and publish it in timely manner. Development of regular writing schedules and protecting time for competing demands. Learning of specific genres of writing for academic journals, books, and op-eds. Editing of students’ own work and that of classmates. S/U or letter grading.

204. Topics in Sociological Theorizing. (4) Seminar, four hours. Examination of major sociological theoretical and methodological issues, problems in classical or contemporary sociological theory. S/U or letter grading.

205. Family and Social Change. (4) Lecture, three hours. Examination of sources of change in family and community structures and processes and social and cultural systems and their consequences. Emphasis on understanding key proximate determinants of change. For advanced students interested in population, demography, and social change. 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 methods are inappropria- te, including categorical data, structural equations, longitudinal data, incomplete and erroneous data, and complex samples. S/U or letter grading.
211A-211B. Comparative and Historical Methods. (4-4) Lecture, three hours. In Progress (211A) and S/U or letter (211B) grading. 211A. Strategies of Research and Conceptualization. Topics include relationship of theory and fact to social sciences, logic of comparative analysis, and substantive paradigms of comparative and historical analysis. Reading involves methodological examination of basic works in representative problem areas. 211B. Research on non-Western cultures. Topics include problem of evidence, quantitative and qualitative data. Techniques of data analysis, including use of manuscript census, content analysis, collective biography, and secondary analysis. 212A. Quantitative Data Analysis. (4) Lecture, three hours: discussion, one hour. Enforced requisites: courses 210A, 210B. Course 212B is enforced requisite to 212B. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice at utilizing statistical methods encountered in previous courses, culminating in term paper proposal of one American Sociological Review or similar journal article. Topics include simple tabular analysis, correlation, log-linear analysis, ordinary least squares regression, regression diagnostics, robust regression analysis, sampling strategies, and methods for handling complex sample survey designs. In Progress grading (credit to be given only on completion of course 212B).

212B. Quantitative Data Analysis. (4) Lecture, three hours: discussion, one hour. Enforced requisite: course 212A. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice at utilizing statistical methods encountered in previous courses, culminating in term paper proposal of one American Sociological Review or similar journal article. Topics include simple tabular analysis, correlation, log-linear analysis, ordinary least squares regression, regression diagnostics, robust regression analysis, sampling strategies, and methods for handling complex sample survey designs. In Progress grading (credit to be given only on completion of course 212B).

212C. Study Design and Other Issues in Quantitative Data Analysis. (4) Lecture, three hours. Design for graduate and undergraduate students who have had some exposure to statistics and quantitative methods. Introduction to study design, including experimental and quasi-experimental designs, sampling strategies, and descriptive methods. Emphasis on design's contextual and other designs. Discussion of suitability of various design classes for specific analytic goals, as well as their comparative strengths and weaknesses. S/U or letter grading.

M213A. Introduction to Demographic Methods. (4) (Same as Biostatistics M208, Community Health Sciences M208, and Economics M208.) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include 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; piecewise exponential hazards models; proportional 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 212B. Survey research in sociological context. Topics include meta-theory and concept formation; questionnaire and item design; scales, indices, typologies; data collection—planning and management; network, snowball, and experience sampling; multistage sampling, stratification and clustering. Students participate in a survey research project. Letter grading.


217B-217C. Ethnographic Fieldwork. (4) Seminar, three hours. Recommended requisite: 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 (217C) grading.

220. Self and Society. (4) Lecture, three hours. Examination of social and cultural processes shaping definition and experience of the self, embodied inter- actional practices through which the self is constructed in everyday and institutional contexts, formation and transformation of the self, and construction of collective identity. Letter grading.


223. Phenomenological and Interactionist Perspectives on Selected Topics. (4) Lecture, three hours. Comparison of phenomenological and symbolic perspectives by examining particular body of five or currently unresolved substantive issues. Topics vary; attention on development of phenomenological and interactionist thought on topic of concern, with special concern for ambiguities and divergences between both 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) Seminar, three hours. Examination of issues such as demography, health, aging, labor, and broad array of topics concerned with effects of economic, social, and political transformations on human behavior both in U.S. and abroad. May be taken independently for credit. S/U or letter 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, and commented upon, and methods and critique of 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 develop analytical skills of doing comparative research into race, one that strives to be as comparative at level of theory (attending to relationship between race and other forms of social classification, including ethnicity and religion) as analytical research into race, one that strives to be as comparative at level of theory (attending to relationship between race and other forms of social classification, including ethnicity and religion) as analytical research into race, one that strives to be as comparative at level of theory (attending to relationship between race and other forms of social classification, including ethnicity and religion) as analytical research into race, one that strives to be as comparative at level of theory (attending to relationship between race and other forms of social classification, including ethnicity and religion) as analytical research into race, one that strives to be as 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246. Sociology of Health. (4) Seminar, three hours. Discussion of topics in health and illness with students pursuing independent research or preparing for careers in health-related fields. Letter grading.
247. Social and Economic Issues. (4) Seminar, three hours. Examination of major social and economic issues in contemporary society. 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.

252. Topics in Sociology. (4) Seminar, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.

253. Politics of Reproduction, Gender, and Family. (4) Seminar, three hours. Human reproduction and its regulation have long been a focus of contentious political and social movements across the globe. This course explores the role of politics and policy in shaping the conditions of reproduction and the implications for social and cultural change. Letter grading.

M238. Feminist Theory. (4) Same as Gender Studies M238. Seminar, three hours. Designed for graduate students. Analysis of current American feminist thought and its sociological implications. Exploration of critiques of second wave feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent “antifeminist” feminists. The focus is on three directions for future feminist sociology. Letter grading.

239A-239B. Social Stratification, Mobility, and Inequality. (4-4) Lecture, three hours. Enforced prerequisites: courses 239A and 239B. Course 239A is enforced prerequisite to 239B. Introduction to theories of social stratification, mobility, and inequality in U.S. and abroad, with focus on concepts, data, methods, and facts about occupational and class structure; intergenerational transmission of socioeconomic status; effects of family, school, and labor market on socioeconomic achievement, careers, and inequality; earnings, income, and wealth distribution; poverty; social mobility; social policies; and making gender and ethnic stratification and health disparities. In Progress (239A) and letter (239B) grading.

241. Theories of Gender in Society. (4) Lecture, one hour; discussion, two hours. Gender stratification in society and sociology; extent of gender diversity in human societies past and present; why gender is absent in classical macrosociology; can masculinist paradigms make space for gender or does 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. An introduction to conversation analysis. Lecture, case studies, and discussion on conversational theory and method, with a focus on the role of language in social interaction and the social and cultural contexts of language use. Letter grading.

245. Cultural Sociology: Classical and Contemporary Approaches. (4) Lecture, one hour; discussion, two hours. Exploration of classical approaches to cultural production, with an emphasis on theories of language—Weberian, Durkheimian, Parsonsian, and critical—and living traditions they have spawned. Examination of contemporary efforts at constructing new cultural sociology. Theoretical focus on the consideration of case studies. S/U or letter grading.

246. Sociology of Culture. (4) Seminar, three hours. Theoretical and methodological issues in cultural approaches to culture. Perspectives include cultural economics, political economy, and production of culture. S/U or letter grading.

247. Sociology of Emotions. (4) Lecture, two hours; discussion, one hour. Designed for graduate students. Sociological theories of emotional expression; experience as a basis for evaluating current theoretical debates. Letter grading.

250. Sociology of Health. (4) Seminar, three hours. Examination of the sociological aspects of health and illness with students pursuing independent research or preparing for careers in health-related fields. 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.

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247. Sociology of Emotions. (4) Lecture, two hours; discussion, one hour. Designed for graduate students. Sociological theories of emotional expression; experience as a basis for evaluating current theoretical debates. Letter grading.
281. 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.

282. 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, challenge of managed care, sick role and social control, interactionism and negotiation of sickness, sickness and self, debates over medicalization and demedicalization. Design for field examination in sociology of health and medicine and specifically for themes traditionally included under medical sociology/sociology of medicine. S/U or letter grading.

283. Communication in Medical Care, (4) Seminar, three hours. Review and development of empirical knowledge about doctor-patient relationship. Analysis of nature and dynamics of routine office visits, with focus on nature and role of norms in regulating doctor-patient conduct, role of expertise and power in doctor-patient relationship, and methodological questions concerning how doctor-patient relationship can be analyzed. S/U or letter grading.


287. Topics in Chinese Society, (4) Seminar, three hours. Prerequisite: at least two upper-division courses on China in any social sciences discipline. Introduction to current research questions in Chinese sociology, as well as major themes in study of Chinese society, both historical and contemporary, including demographic, economic, political, and social change before and after 1949. S/U or letter grading.

289A-289B. Practicum in Conversation Analysis, (2-4) Requisites: courses 244A, 244B. S/U grading.

289A. Data Analysis, Laboratory, two hours. Practice in analysis of conversational data. May be repeated for credit. S/U grading.

289B. Developing Work in Progress, Seminar, three hours. Opportunity to advance research projects in progress and to develop skills of constructive criticism in discussing work of others.

M290A-M290B. Immigration, Racial Change, and 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, question of gentrification, immigration, urban culture (especially art, museums, and movie and music industries), and environmentalism. Concurrently scheduled with course C191N. Letter grading.

298. Workshop in Culture and Society, (4) Seminar, two hours every other week. Interdisciplinary workshop for graduate students and faculty pursuing theory and research in topics related to interplay of culture and society, whether social, literary, or philosophical in nature. S/U grading.

375. Teaching Apprentice Practicum, (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel as teaching assistant, associate, or fellow. Teaching assistantship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


495. Supervised Teaching of Sociology, (2) Seminar, two hours. Preparation: appointment as teaching assistant in Sociology Department. Special course for teaching assistants designed to deal with problems and techniques of teaching introductory sociology. S/U grading.

501. Cooperative Program, (2 to 6) Tutorial, to be arranged. Directed research for and writing of Master’s degree paper under guidance of student’s MA committee chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.


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Javier Patiño Loira, PhD
Mónica Teixeira de Silva, PhD
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J. Randal Johnson, PhD
Javier Patiño Loira, PhD

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.

SOUTH ASIAN STUDIES
See International and Area Studies

SOUTHEAST ASIAN STUDIES
See International and Area Studies
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.

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Spanish and Portuguese grammar and/or composition.

**Spanish BA**

**Capstone Major**

**Learning Outcomes**

The Spanish major has the following learning outcomes:

- Demonstrated written and oral mastery of the Spanish language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate primary sources
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

**Preparation for the Major**

*Required: Spanish 25 or 27, 42, 44. Each course must be passed with an average grade of C or better prior to beginning upper-division work in the major.*

**Transfer Students**

Transfer applicants to the Spanish and Community and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one Spanish civilization course, and one Spanish American civilization course.

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

**The Major**

*Required: (1) Spanish 100A or 100B, and 119 or 120; (2) four elective Spanish literature, culture, linguistics, or media studies courses selected from 130, 135, 140, 145, 155C, 160, 170, 175, 195; (3) two interdisciplinary studies courses selected from Chicana and Chicano Studies 100SL, CM106, M119, 120, M121, M122, 131, M144, 149, 181, Sociology M155; (4) two capstone community-based and experiential learning courses (8 to 10 units) selected from Chicana and Chicano Studies 100SL, Spanish M166SL, M172SL. A minimum of 46 units applied toward the major requirements must be in addition to units applied toward major or minor requirements in another department or program.*

**Spanish and 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 27, 42 or 44, Portuguese 25 or 26 or 27 (27 recommended), and 46.

Transfer Students
Transfer applicants to the Spanish and Portuguese major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Portuguese, one year of Spanish, and one English as a second language course.

The Major

Required: (1) One course from Spanish 100A or 100B and one course from Portuguese 100A or 100B, (2) Spanish 119, 120, Portuguese 130A, 130B, (3) three 4- or 5-unit upper-division elective courses, and (4) one 4-unit upper-division elective course in a specialized topic.

Portuguese BA

Learning Outcomes
The Portuguese major has the following learning outcomes:

• Demonstrated oral, aural, and written mastery of the Portuguese language
• Demonstrated specific skills and expertise, including research, analysis, and writing
• Conception and execution of research projects that identify and engage with a specialized topic
• Identification and analysis of appropriate primary sources
• Working knowledge of scholarly discourse relative to a specialized topic
• Engagement with peers through presentation, discussion, and critique of student work

Preparation for the Major

Required: Portuguese 25 or 26 or 27 (27 recommended), and 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 year of Spanish, and one English as a second language course.

The Major

Required: Portuguese 25 or 26 or 27, and one course from History 103, 120A, 120B, and seven elective courses selected from History 103 through 199. Two courses from outside the department that focus on Brazil, Portuguese, 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 the Portuguese 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 5314 Rolfe Hall.

Required Lower-Division Courses (8 to 9 units): Spanish 25 and 27, and one course from History 8A, 8B, 8C, or Spanish 44.

Required Upper-Division Courses (20 to 22 units): Three Mexican culture and literature courses selected from Spanish 135 through 175 in consultation with the undergraduate adviser and two courses from Anthropology 114P, Chicana and Chicano Studies M102, M108A, 120, M125, M132, 142, 172, 184, Ethnomusicology M108A, 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

M5A-M5B-M5C.Elementary Nahuahtli. (4—4—4)
(Same as Chicana and Chicano Studies M5A-M5B-M5C and International and Area Studies M5A-M5B-M5C.) Lecture, five hours. Course M5A is enforced requisite to M5B, which is enforced requisite to M5C. Introduction to Aztec language of central Mexico. Coverage of basic Nahuahtli grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

(Same as Chicana and Chicano Studies M15A-M15B-M15C and International and Area Studies M15A-M15B-M15C.) Lecture, four hours. Enforced requisites: courses M5A, M5B, M5C. Course M15A is enforced requisite to M15B, which is enforced requisite to M15C. Taught primarily in Nahuahtli. Examination of Nahuahtli (Aztec) language of central Mexico at intermediate level. Coverage of Nahuahtli grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

M115A-M115B-M115C. Directed individual study or research in Aztec language. Four units may be applied toward MA course requirements. May be repeated for credit. S/U grading.

198HC. Honors Contracts. (1) Seminar, three hours. Directed 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 Nahuahtli. (4—4—4)
(Same as Chicana and Chicano Studies M162A-M162B-M162C and International and Area Studies M115A-M115B-M115C.) Lecture, four hours. Requisites: courses M115A, M15B, M15C. Course M115A is requisite to M115B, which is requisite to M115C. Taught primarily in Nahuahtli. Examination of Nahuahtli (Aztec) language of central Mexico at intermediate level. Coverage of Nahuahtli grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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.

198. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Graduate Course
596. Directed Studies in Quechua. (1 to 8) Tutorial, to be arranged. Requisites: 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 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.

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
M115A-M115B-M115C. Advanced Portuguese. (4—4—4)
(Same as Chicana and Chicano Studies M115A-M115B-M115C, and Spanish and Portuguese 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 Portuguese. Examination of Portuguese language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Seminar, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

198. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

198. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or 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.
2. Elementary Portuguese. (4) Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is on campus. Overview of linguistic and cultural context 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.

8A-8B. 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.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


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 Popula 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. 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. 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.

seniors. Development and completion of honors thesis under direct supervision of faculty member. May not be applied toward major requirements. Individual contract required. Letter grading.

199. Directed Research in Portuguese. (2 to 4) Tutorial, to be arranged. Requisite: course 27. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. Eight units of courses 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 Spanish M200.) Lecture, three hours. Identification and use of research resources for graduate students. M201A-M201B. Literary Theory and Criticism. (4–4) (Same as Spanish M201A-M201B.) Lecture, three hours. Definition, discussion, and application of main currents of contemporary literary theory and criticism. Letter grading.

202. Synchonic Morphology and Phonology. (4) Lecture, three hours. Study of theoretical synchronic linguistics as applied to Portuguese.

204A-B. General Grammar. (4–4) Lecture, three hours. Course 204A is requisite to 204B. Generative approach to the Portuguese language, with some consideration of bearing of syntax, semantics, and phonology on style, metaphor, and meter.


228. Post-Romanticism and Naturalism in 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.

230. Special Topics. (4) Discussion, two hours. Designed for graduate students. Consult Schedule of Classes or department counselor for topics to be offered in a specific term. S/U or letter grading.

235. 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.


599. Research for PhD Dissertation. (4 to 12) Tutorial, to be arranged. Study or research in areas or subjects not offered as regular courses. No more than 8 units may be applied toward MA course requirements. S/U or letter grading.

Spanish Low-Division Courses

1. Elementary Spanish. (4) Lecture, three hours; laboratory, two hours. Elementary Spanish. Laboratory is online. Introductory Spanish language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

2A. 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.

2G. Reading Course for Graduate Students. (4) Lecture, three hours. S/U or letter grading. May not be applied toward degree requirements. S/U grading.

3. Elementary Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Introductory Spanish language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

3A. 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. 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 stretched dialogue, 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 stretched dialogue, 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) (Formerly numbered 7.) 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 Spanish language and culture course to further develop communicative abilities, both oral 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 oral and written, and to increase knowledge of grammatical structures and achieve communicative competence. P/NP or letter grading.

8A-8B. Spanish Conversation. (2–2) 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.

9A-9B. Advanced Conversation. (2–2) Discussion, three hours. Enforced requisite: course 8B. P/NP or letter grading.
10. Intensive Elementary Spanish. (12) Lecture, 20 hours. Intensive elementary instruction in speaking, listening, reading, and writing equivalent to courses 1, 2, and 3, with emphasis on Spanish grammar and Hispanic culture. Offered in summer only. P/NP or letter grading.

11A-11B. Catalan Language and Culture I, II. (4–4) Lecture, six hours. Introduction to oral and written Catalan language. Two-term accelerated language sequence. Three terms of traditional pattern and designed for advanced undergraduate and graduate students. P/NP or letter grading. 11A. Preparation: at least two years of college-level Spanish, Portuguese, or another Romance language other than Catalan. 11B. Requisite: course 11A.

12A-12B-12C. Basque Language and Culture I, II, III. (4–4–4) Lecture, five hours. Introduction to Basque language and culture. Three-term language sequence with emphasis on listening, speaking, reading, writing, and cultural competence. P/NP or letter grading. 12B. Requisite: course 12A. 12C. Requisite: course 12B.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current significance, taught by staff 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 25. 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 culture for more advanced Spanish courses. P/NP or letter grading.


28A. Spanish for Special Purposes: Medical. (4) Lecture, three hours. Enforced requisite: course 5. Practice in speaking, reading, and writing Spanish using appropriate vocabulary and cultural situations for students with special interest in fields such as medicine, business, law, etc. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Language. (3) (Same as Portuguese M35.) Lecture, three hours; discussion, one hour. Introduction to language study within context of Romance languages, focusing on Spanish and Portuguese. Nature of language: structure, evolution, social and cultural settings, literary uses. Study of language and its relation to other areas of human knowledge. P/NP or letter grading.

42. Iberian Cultures. (5) Lecture, four hours; discussion, one hour. Requisites: courses 25 or 27. Introduction to four major genres: poetry, narrative, drama, and essay. P/NP or letter grading.

49. Student Research Program. (1 to 2) Individual study with lecture course instructor to explore research grants. P/NP or letter grading.

100A-100B. Introduction to Study of Spanish Grammar. (4–4) Lecture, four hours. Requisite: course M25 or P/NP or letter grading. 100A. Syntax and Morphology. Analysis of phonemic and morphological systems of Spanish. 100B. Syntax, Study of syntactical systems of Spanish.

105. Advanced Spanish Grammar (4) Lecture, four hours. Requisites: courses 25 or 27. Foundation 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.


117. Introduction to Literary Analysis. (4) Lecture, four hours. Requisite: course 25 or 27. Exploration of major literary movements and writers of 18th and 19th centuries in Spain and Spanish America. Possible topics include Enlightenment, Romanticism, nation-building literature, realism, and naturalism, and works by Balzac, Conrad, Zolotow, Zola, 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: course 25 or 27. Examination of Spanish literatures and cultures and main concepts used to address them. Possible topics include trans-culturation and heterogeneity, race and ethnicity, avant-garde movements, letters and popular cultures, literary modernization in Latin American boom, literature and revolution, autobiography, women’s writing, border literature, and postmodernist fiction. May be repeated for credit with topic change. P/NP or letter grading.

155A. Chicanicano Narrative. (4) (Same as Chicana and Chicano Studies M145A.) Lecture, three hours. Requisite: course 25 or 27. Introduction to major Chicano narrative traditions and Chicano/Central American, and Chicana/Chicana literature. Special attention to four major genres: poetry, narrative, drama, and essay, P/NP or letter grading.

160. Topics in Spanish Linguistics. (4) (Same as Chicana and Chicano Studies M145B.) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 25 or 27. Exploration of spread of Spanish-American literature and culture 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 U.S. Latinas and Latinos, Chicanos, Puerto Rican, Cuban American, Central American American, South American American, and Jewish Latino literatures may be included. May be repeated for credit with topic change. P/NP or letter grading.

170. Topics in Spanish Linguistics. (4) Lecture, four hours. Requisite: course 25. Exploration of origin of language change, how Spanish from Latin to early modern period, how Spanish varies in world, how to teach Spanish,
Spanish in contact with other languages. Possible topics include Spanish in Los Angeles, history of Spanish language, first- and second-language acquisition, language and cognition. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics in Spanish: Studies in Hispanic Culture and Civilization. (4) Seminar, three hours. Advanced variable topics course that studies diverse aspects of Hispanic culture, civilization, and history. Classroom discussions, development of culminating paper, and examinations in Spanish. May be repeated for credit with topic change. P/NP or letter grading.

191C. Senior Capstone Seminar. (4) Seminar, three hours. Enforced requirements: courses 118, 120, and at least three courses of upper-division elective courses required for majors. Limited to senior Spanish majors. Knowledge from previous coursework used to address current trends in Spanish. Students work with a faculty member on an individual research topic. Culminating paper required. Letter grading.

195. Community Internships in Spanish. (4) Tutorial, one hour; fieldwork, 10 hours. Requires: course 25 or 27. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide journal of their experience. Final research paper required. May be repeated for credit. Individual contract required with supervising faculty member required. P/NP or letter grading.

197. Advanced Honors Seminars. (1) Seminar, three hours. May be repeated once for credit. P/NP or letter grading.

198A-198B. Senior Honors Research in Spanish I, II. (4–4) 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 prerequisite to 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. Letter grading.

199. Directed Research in Spanish. (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 prerequisite to 1999B. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. Eight units of courses 199 and 199B 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. Reading and identification and use of research resources for graduate students. P/NP or letter grading.

M201A-M201B. Literary Theory and Criticism. (4–4) (Same as Portuguese M201A-M201B). Lecture, three hours. Definition, discussion, and application of major currents of contemporary literary theory and criticism. Letter grading.


M205A-M205B. Development of Portuguese and Spanish Languages. (4–4) (Same as Portuguese M205A-M205B). Lecture, three hours. Historical development of Portuguese and Spanish languages from their origin in spoken Latin.


M249. Folk Literature of Spanish and Portuguese Worlds. (4) (Same as Portuguese M249.) Lecture, three hours. Intensive study of folk literature of Spanish and Portuguese cultures as represented in (1) ballad and poetry, (2) narrative and drama, (3) speech, S/U or letter grading.

M251A-M251B. Studies in Gallegan-Portuguese and Old Spanish. (4–4) (Same as Portuguese M251A-M251B.) Lecture, two hours. Study of problems related to historical development of Gallegan-Portuguese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate guidance committee.

256A-256B. Studies in Spanish Linguistics. (4–4) Lecture, two hours. Study of problems in analysis and description of the contemporary Spanish language. Each course may be repeated once with topic change and consent of appropriate guidance committee.

257. Studies in Dialectology. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

262A-262B. Studies in Medieval Spanish Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

264A-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.

265. Cervantes. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

270A-270B. Studies in 18th-Century Spanish Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

271A-271B. Studies in 19th-Century Spanish Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

272A-272B. Studies in 20th-Century Spanish Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

277A-277B. Studies in Colonial Spanish-American Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

278A-278B. Studies in 19th-Century Spanish-American Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

280A-280B. Studies in Contemporary Spanish-American Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

281. Studies in Chicano Literature. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

286A-286B. Studies in Hispanic Folk Literature. (4–4) Lecture, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

290. Special Topics. (4) Lecture, two hours. Variable topics; consult Schedule of Classes or department counselor for topics to be offered in a specific term. May be repeated once with topic change and consent of appropriate guidance committee.

291A-291B. Colonial Studies Research Group. (2–2) Research group meeting, two hours. Limited to graduate students. Discussion and analysis of colonial manuscripts. Specific topics vary from year to year. Production of student papers for publication and/or presentation at conferences or symposia. 291A. S/U grading; 291B. Requisite: course 291A. May be repeated for credit. S/U or letter grading.

296. Graduate Research Group. (2) Research group meeting, two hours. Limited to graduate students. Designed to bring together graduate students in seminar setting with one or more faculty members to discuss and critique individual research projects, especially dissertation research. S/U grading.

310. Teaching Spanish in Elementary School. (4) Lecture, three hours. Teaching Spanish in Elementary School.


373. Teaching Composition. (2) Designed for graduate students. Seminar on teaching writing in Spanish language courses. Introduction to composition theory. Instruction and practice in integrating writing into curriculum, setting goals and standards, designing and sequencing course materials, evaluating and commenting on papers. May not be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

385. 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.

490. James Joyce. (4) Lecture, two hours. Intensive study of Joyce’s works, with emphasis on theme, style, and structure. S/U or letter grading.

530. Theory of Composition. (3) Seminar, to be arranged. Preparation: instructor of English 200 or course in composition or related field. Seminar course in the theory of composition as it relates to teaching writing in the English language. Specific topics vary from year to year.

533. Research Seminar. (4) Seminar, to be arranged. Preparation: instructor of English or graduate assistant holding research seminar. In-depth investigation of research topics; consult Schedule of Classes or department counselor for topics to be offered in a specific term. May be repeated once with topic change and consent of appropriate guidance committee.

534. Teaching Seminar. (4) Seminar, to be arranged. Preparation: instructor of English or graduate assistant holding research seminar. Seminar on teaching principles and pedagogy. Specific topics vary from year to year.

540. Special Problems. (4) Tutorial, to be arranged. Preparation: instructor of English or graduate assistant holding research seminar. Tutorial course in special problems; consult Schedule of Classes or department counselor for topics to be offered in a specific term. May be repeated once with topic change and consent of appropriate guidance committee.

545. Special Study. (4) Tutorial, to be arranged. Preparation: instructor of English or graduate assistant holding research seminar. Tutorial course in special study; consult Schedule of Classes or department counselor for topics to be offered in a specific term. May be repeated once with topic change and consent of appropriate guidance committee.

550. 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.

556. 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.

557. Preparation for Graduate Examinations. (4 to 12) Tutorial, to be arranged. Preparation: official acceptance of candidacy by department. Individual preparation for MA comprehensive examination or PhD qualifying examinations. May be taken only once for each degree examination and only in term that comprehensive or qualifying examinations are to be taken. S/U grading.


SPEECH

See Communication

STATISTICS

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Assistant Professors
Arash A. Amini, PhD
Frederic R. Paik Schoenberg, PhD
Theodore M. Porter, PhD
Janice L. Reiff, PhD (Waldo W. Neikirk Term Professor)

Assistant Professors
Kevin F. McCordle, PhD
Frederic R. Paik Schoenberg, PhD
Theodore M. Porter, PhD

Assistant Professors
Arash A. Amini, PhD
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Theodore M. Porter, PhD

Professors Emeriti
Richard A. Berk, PhD
Jan de Leeuw, PhD

Assistant Professors
Arash A. Amini, PhD
Alyson K. Fletcher, PhD
Tao Gao, PhD
Erik K. Hartman, PhD
Chad J. Hazlett, PhD
Jingyi Jessica Li, PhD
Qing Zhou, PhD
Song-Chun Zhu, PhD

Lecturers
Robert L. Gould, PhD
Jan de Leeuw, PhD

Lecturers
Nicolas Christou, PhD
Maryam M. Esfandiari, PhD
Vivian Lew, PhD
Juanita Sanchez, PhD

Lecturers
Akram M. Almohalwas, PhD
Maria Cha, PhD
Miles S. Chen, PhD
Michael Tsiang, PhD
Linda A. Zanontian, PhD

Adjunct Associate Professor
Ivyday D. Dinov, PhD

Adjunct Assistant Professor
Katherine M. Mullen, PhD

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 provide 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.

Undergraduate Study
The Statistics major is a designated capstone major. 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 results to nontechnical audiences.

Undergraduate Courses
Students interested in either the major or minor in Statistics should meet with the student affairs office 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 advisor to ensure that the minor selected is one in which statistics is applied.

Learning Outcomes
The Statistics major has the following learning outcomes:

- 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 nontechnical audiences

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 Mathematics 33A, Statistics 20, and one course from Statistics 10 through 13, with grades of C or better, and a 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. Students who repeat any preparation course more than once are automatically denied admission to the major.

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.

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 130, 151 through 199, Mathematics 131A, 131B, 151A, 151B, 170B, 171, 172B, 175. Elective courses from outside the department are selected in consultation with the undergraduate faculty adviser.

The capstone consists of two courses (Statistics 140SL and 141SL) that must be completed sequentially in the final year. Students must first take courses 100B, 101B, and 130 before they can begin the capstone.

Only 4 units of course 199 may be applied toward the major. Courses 189 and 189HC may not be applied toward any of the major requirements.

Students planning to continue their study of statistics at the graduate level are strongly advised to include in their schedule as many of the following courses as possible: Mathematics 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.

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 be in good academic standing (2.0 grade-point average or better) and have taken Mathematics 31B, Statistics 20, and one course from Statistics 10 through 13 for letter grades and (2) file a petition with the undergraduate adviser in 8117A Mathematical Sciences, 310-206-3742.

Required Upper-Division Courses (28 units):
Seven upper-division courses selected from one of the following options: (1) any two sequences from Statistics 100A, 100B, 100C, and 101A, 101B, 101C, and 102A, 102B, 102C, and one elective course or (2) two courses from each of the above sequences and one elective course. Electives may be selected from any upper-division statistics course. Statistics 199 may be applied as one of the electives for both options. Courses 105 and 189 may not be applied toward the minor.

A minimum of 20 units applied toward the minor 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.

Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Statistics offers Master of Science (MS), Candidate in Philosophy (CPHil), and Doctor of Philosophy (PhD) degrees in Statistics; and a self-supporting Master of Applied Statistics (MAS) degree.

Statistics
Lower-Division Courses
10. Introduction to Statistical Reasoning. (5) Lecture, three hours; discussion, one hour; computer laboratory, two hours. Preparation: three years of high school mathematics. Not open for credit to students with credit for course 11, 12, 13, 14, or former course 10H. Introduction to statistical thinking and understanding, including strengths and limitations of basic experimental designs, graphical and numerical summaries of data, inference, regression as descriptive tool. P/NP or letter grading.
12. Introduction to Statistical Methods for Geographer and Environmental Studies. (S) Lecture, four hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for course 10, 11, 13, or 14. Introduction to statistical thinking and understanding, with emphasis on statistical techniques used in geography 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 package, including spatial statistics. P/NP or letter grading.

13. Introduction to Statistical Methods for Life and Health Sciences. (S) 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. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current importance. Taught by full-time, faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


35. Introduction to Probability with Applications to Statistics. (4) Lecture, three hours; discussion, one hour. Exploration of some main topics in introductory probability: theory of probability, discrete probability distributions, Markov processes, and Brownian motion. Examination of computer simulation in depth and discussion of computational approximations of solutions to complex problems using R, with examples of situations and concepts that arise naturally when playing Texas Hold’em and other games. P/NP or letter grading.

88. Sophomore Seminars: Statistics. (2) Seminar, two hours lecture and two hours laboratory from 10, 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. Consulting project may be required. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by 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 guidance or assistance. 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 Probability. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 20B, 33B. Not open for credit to Electrical Engineering 131A or Mathematics 170A; open to graduate students. May receive credit for only one of the following: course 100A, former course 110A, Biostatistics 157A; prerequisites: knowledge of 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, expected sums of squares principle, testing general linear hypothesis in regression, inference procedures, Gauss/Markov theorem, examination of residuals, principle component regression, stepwise procedures. P/NP or letter grading.

101A. Introduction to Data Analysis and Regression. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 101A. Applied regression analysis, with emphasis on general linear model (e.g., multiple regression and general linear models, e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping for statistical inference. 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 components of experimental design: randomization and balance, completely random 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 seniors/juniors. Applied regression analysis, with emphasis on 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 inference. P/NP or letter grading.

102A. Introduction to Computational Statistics with R. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 20, Mathematics 33A. Introduction to computer simulation 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 10, 20, 100B, Mathematics 33A. Introduction to computational methods and optimization useful for statisticians. Use of computer programming to solve statistical problems. Topics include vector/matrix computation, multivariable normal distribution, principal component analysis, clustering analysis, gradient-based optimization, EM algorithm for mixtures, and dynamic programming. P/NP or letter grading.


105. Statistics for Engineers. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Electrical Engineering 131A or Mathematics 170A. Foundation of basic concepts and techniques of statistics. Topics include sampling distributions, statistical estimation (including maximum likelihood estimation), statistical inference, hypothesis testing, with emphasis on application of these concepts. Discussion of methods for checking whether assumptions required for mathematical foundations are approached. May be repeated with permission as a prerequisite. P/NP or letter grading.


C116. Social Statistics. (4) Lecture, three hours. Preparation: some knowledge of basic calculus and linear algebra. Requisites: courses 100A and 100B, or 101B and 101C, or one course from 10, 11, 12, 13 and one lower-division statistics course. Statistical consulting. Designed for social sciences graduate students and advanced undergraduate students seeking training in data issues and methods employed in social sciences. Concurrently scheduled with course C216. P/NP or letter grading.

130. Getting Up to Speed with SPSS, Stats, SAS, and R. (4) Lecture, three hours; discussion, one hour. Requisite: courses 102A. Introduction to statistical literacy. Study of four commonly employed solutions—SPSS (Statistical Package for Social Sciences), Stats, SAS (Statistical Analysis System), and R—for data analytic and statistical issues in health sciences, engineering, economics, and government. Emphasis on applied problem solving, measurement issues in data analysis, use of computer for analysis of large-scale data. P/NP or letter grading.

131. Python and Other Technologies for Data Analysis. (4) Lecture, three hours; discussion, one hour. Requisite: course 102A. Limited to junior/senior statistics majors and minors. Use of Python and other technologies for data analysis and data science. Focus on programming with Python and selection of its libraries—NumPy, pandas, Matplotlib, and scikit-learn—for purpose of data processing, data cleaning, data analysis, and machine learning. Topics covered include Jupyter notebook, Structured Query Language (SQL), and git. P/NP or letter grading.

134. Practice of Statistical Consulting. (4) Lecture, one hour; discussion, two hours. Enforced requisites: courses 100B, 101B, 130. Limited to seniors. Opportunity to solve real data analysis problems for real community-based or campus-based clients. Students work in small groups with faculty member and client to frame client’s question in statistical terms, create statistical model, analyze data, and report results. Weekly meetings in classroom setting to study basic consulting skills, analyze case studies, share ideas, and make reports. On-site visits as necessary. Courses 140SL and 141SL must be taken in consecutive terms. In Progress grades only. Credit to be given only on completion of course 141SL.

141SL. Practice of Statistical Consulting. (4) Seminar, one hour; discussion, one hour; research group meeting, two hours. Requisite: course 140SL. Limited to seniors. Opportunity to solve real data analysis problems for real community-based or campus-based clients. Students work in small groups with faculty member and client to frame client’s question in statistical terms, create statistical model, analyze data, and report results. Weekly meetings in classroom setting to study basic consulting skills, analyze case studies, share experiences, exchange ideas, and make reports. On-site visits as necessary. Courses 140SL and 141SL must be taken in consecutive terms. Letter grading.


M154. Measurement and Its Applications. (4) (Same as Psychology M144.) Lecture, three hours. Requisite: one course from 10, 12, 13, or Psychology 100A. Selected theories for quantification of psychological, educational, social, and behavioral science data. Classical test, factor analysis, generalizability, item response, optimal scaling, ordinal measurement, comparison-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, 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 generating efficient and precise estimates of population characteristics. Practical applications of sampling methods via lectures and hands-on laboratory exercises. Concurrently scheduled with course CM248. P/NP or letter grading.

157. Probability and Statistics Data Modeling and Analysis using Statistics Online Computational Resource. (4) Lecture, three hours; discussion, one hour. Requisites: courses 100B, 101B, or 102A. Introduction to statistical methodology and its role within the scientific community. Techniques/formats such as relational databases/SQL and shell, Python, R, and Processing and data technologies used and developed for these topics in statistical modeling and inference, including probability sampling, regression estimation, complicated sampling, and cluster sampling. S/U 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, 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 written communication skills through variety of 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 applications of statistics by weekly guest speakers. Course open to upper-division and graduate students. May be repeated for credit. 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 repeated toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

195. Community or Corporate Internships in Statistics. (4) Tutorial, 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. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in Statistics. (1 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

200A. Applied Probability. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Mathematics 170A. Limited to graduate statistics students. Simulation, renewal, martingales, and selected topics from queuing, reliability, speech recognition, computational biology, mathematical finance, epidemiology. S/U or letter grading.


200C. High Dimensional Statistics. (4) Lecture, three hours; discussion, one hour. Survey of modern techniques in analyzing high-dimensional and nonparametric estimation problems. Emphasis on non-asymptotic bounds via concentration inequalities. S/U or letter grading.

201A. Research Design, Sampling, and Analysis. (4) Lecture, three hours; discussion, one hour. Designed for graduate students. Basic principles, ANOVA block design, unequal probability sampling, regression estimation, stratified sampling, and cluster sampling. S/U or letter grading.

201B. Statistical Modeling and Learning. (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. Interest in either obtaining suitable conditional expectation function or estimating meaningful parameters of underlying probabilistic model to make inferences or predictions from data. Focus on what is to be done when linear 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 of generalized linear models. Exploration of broader regression/classification techniques that have been ubiquitous in machine learning literature, with special attention to regularization and kernelized methods. S/U or letter grading.

201C. Advanced Modeling and Inference. (4) 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 models, missing data problems, mixture modeling, additive modeling, hidden Markov models, and Bayesian networks. 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 technologies 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. Requisite: course 202A. Survey of computational methods that are especially useful for statistical analysis with implementation of statistical package R. Topics include matrix analysis, multivariate regres-
202C. Monte Carlo Methods for Optimization. (4) Lecture, three hours; discussion, one hour. Recommended: course 202A. Monte Carlo methods and numerical integration. Importance and rejection sampling. Sequential importance sampling. Markov chain Monte Carlo (MCMC) sampling techniques, with emphasis on Gibbs sampling and Metropolis-Hastings simulated annealing. Exact sampling with coupling from past. Permutation testing and bootstrap confidence intervals. S/U or letter grading.

203. Large Sample Theory, Including Resampling. (4) (Formerly numbered 203B.) 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 to stress 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 show how to fit the models using freely available software packages. Topics include regression, poststratification, matching, regression discontinuity, and instrumental variables, as well as multilevel logistic regression and missing-data imputation. Practical tips regarding building, fitting, and understanding models provided. S/U or letter grading.


207. Statistical Learning with Sparsity. (4) Lecture, three hours. Study of methods that exploit sparsity to help recover underlying signal in data. S/U or letter grading.


211. Social Statistics. (4) Lecture, three hours. Preparation: some knowledge of basic calculus and linear algebra. Requisites: courses 100A and 100B, or 101B and 101C, or one course from 10, 11, 12, 13 and one upper-division statistics course using regression. Designed for social sciences graduate students and advanced undergraduate students seeking training in data issues and methods employed in social sciences. Concurrently scheduled with course C116. S/U or letter grading.

218. Statistical Analysis of Networks. (4) Lecture, three hours. Limited to graduate students. Introduction to analysis of social structure, conceived in terms of social networks. Key concepts of social network theory and mathematical representation of social concepts such as role and position. Use of graphical representations of network information. S/U or letter grading.


222. 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. Implementation of various techniques using real data sets from diverse fields, including neuroimaging, geo- graphy, seismology, demography, and environmental sciences. S/U or letter grading.


232B. Statistical Computing and Inference in Vision and Cognition. (4) (Same as Computer Science M266B.) Lecture, three hours. Preparation: basic sta- tistics, linear algebra (matrix analysis), computer vi- sion, introduction to broad range of algorithms for statistical inference and learning that could be used in vision, pattern recognition, speech, bioinformatics, data mining. Topics include Markov chain Monte Carlo computing, sequential Monte Carlo, genetic algorithm, belief propagation, partial differential equations, S/U or letter grading.

232C. Cognitive Artificial Intelligence. (4) Lecture, three hours. Recommended requisites: courses M232A, M232B. Demonstration of how to build artifi- cial intelligence by following principles of human intel- ligence revealed by cognitive science, including learning from small data, expressing causality of observed phenomena, and simulation of models for intuitive social interactions. Draws from statistical modeling, cognitive science, artificial intelligence, computer vision, and robotics. S/U or letter grading.

233. Introduction to Bayesian Statistics. (4) Lecture, three hours. Preparation: recommended requisite: course 200A or 200B. Designed for graduate students. Introduction to statistical inference based on use of Bayes theorem, covering founda- tional aspects, current applications, and computa- tional issues. Topics include Stein paradox, nonpara- metric Bayes, and statistical learning. Examples of applications vary according to interests of students. Concurrently scheduled with course C180. S/U or letter grading.

234. Statistical Learning as Bayesian Inference. (4) Lecture, three hours. Requisite: course 200A or 200A. Formu- lation of vision as Bayesian inference using models developed for designing artificial vision systems. Ap- plication to statistics, they define ideal observer models that can be used to model human performance and serve a benchmark. S/U or letter grading.


242. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M208D and Psy- chology M257.) Lecture, three hours. Introduction to models and methods for analysis of data hypotho- sized to be generated by unmeasured latent vari- ables, including latent variable analogues of tradi- tional methods in multivariate analysis. Causal mod- els, testing theory against observed moment structures. Measurement models such as confirmatory, higher-order, and structurally-measured factor analy- sis. Structural equation models, including path and simultaneous equation models. Parameter estimation, hypothesis testing, and other statistical is- sues. Computer implementation. Applications. S/U or letter grading.


246. Statistical Model Selection. (4) Lecture, three hours. Preparation: basic knowledge of calculus, linear algebra, and computer programming. Modern methods for constructing and evaluating statistical models, including non-Bayesian and Bayesian statis- tical modeling approaches. Discussion of theoretical aspects and data analysis. Letter grading.
CM240. Applied Sampling. (Same as Epidemiology M216.) Lecture, three hours; discussion, one hour. Recommended 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 generating efficient and precise estimates of population characteristics. Practical applications of sampling methods via lectures and hands-on laboratory exercises. Concurrently scheduled with course C155. S/U or letter grading.

M250. Statistical Methods for Epidemiology. (Same as Biostatistics M231.) Lecture, three hours; discussion, one hour. 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 Epidemiology 200B and 200C and introduction of new topics, including principles of epidemiologic analysis, trend analysis, smoothing and sensitivity analysis. S/U or letter grading.

M254. Statistical Methods in Computational Biology. (Same as Bioinformatics M223 and Biomathematics M271.) Lecture, three hours; discussion, one hour. Preparation: introductory probability and statistics. Enforced requisites: course 100A or 200A or Bioinformatics M221. Introduction to statistical methods developed and widely applied in several branches of computational biology, e.g., 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.

C261. Introduction to Pattern Recognition and Machine Learning. (Same as Bioinformatics M221.) Lecture, three hours; discussion, one hour. Recommended requisites: courses 208, M231. Introduction of mathematical tools for analysis of learning with neural networks and graphical models with latent variables. S/U or letter grading.

C270. Mathematical Machine Learning. (Same as Bioinformatics M221.) Lecture, three hours; discussion, one hour. Preparation: courses 100B, Mathematics 33A. Introduction to pattern recognition and machine intelligence designed for advanced undergraduate and graduate students. Concurrently scheduled with course C161. S/U or letter grading.

C271. Probabilistic Models of Visual Cortex. (Same as Bioinformatics M221.) Seminar, three hours; discussion, one hour. Enforced requisites: course 100B or Mathematics 33A. Recommended: Computer Science 211. Lecture, three hours; discussion, one hour. Preparation: courses 100A or 200A or Bioinformatics M221. Introduction to statistical methods developed and widely applied in several branches of computational biology, e.g., 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.

C276. Introduction to Pattern Recognition and Machine Learning. (Same as Bioinformatics M221.) Lecture, three hours; discussion, one hour. Recommended requisites: courses 208, M231. Introduction of mathematical tools for analysis of learning with neural networks and graphical models with latent variables. S/U or letter grading.

C271. Probabilistic Models of Visual Cortex. (Same as Bioinformatics M221.) Seminar, three hours; discussion, one hour. Enforced requisites: course 100B or Mathematics 33A. Recommended: Computer Science 211. Lecture, three hours; discussion, one hour. Preparation: courses 100A or 200A or Bioinformatics M221. Introduction to statistical methods developed and widely applied in several branches of computational biology, e.g., 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.

C283. Statistical Models in Finance. (Same as Biostatistics M231.) Lecture, three hours; discussion, one hour. Recommended requisites: course 100B. Designed for graduate students. Statistical techniques for applications of real market data. Portfolio management, risk diversification, efficient frontier, single index model, capital asset pricing model (CAPM), beta of a stock, European and American options (Black-Scholes model), binomial models. Concurrently scheduled with course C183. S/U or letter grading.

C285. Seminar: Computing for Statistics. (2 to 4) Seminar, one to three hours. Topics in various statistical areas by means of lectures and informal conferences with staff members. S/U grading.

C286. Seminar: Statistical Problem Solving for Population Biology. (Same as Ecology and Evolutionary Biology M212.) Seminar, two hours. Hours. Designated for graduate students. Statistical solutions to complex data analysis and/or experimental design problems encountered by biology graduate students in their own research. May be repeated for credit. S/U grading.

C287. Seminar: Gene Expression and Systems Biology. (2) Seminar, two hours. Designated for graduate students (open to undergraduate students with consent of instructor) and interested with content of instruction of high throughput technologies such as genomic sequencing, microarray gene expression, Chromatin-ImunoPrecipitation DNA chip (ChIP-chip), and mass spectrometry (MS/MS) proteomics, scientists are collecting genetic, genomic, and pathway data at rates far beyond imagination one decade ago. Such gigantic volumes of data produced cannot be analyzed and understood without highly sophisticated computational methods guided by mathematical and statistical principles. Cutting-edge genomics research from statistical data analytic point of view. S/U or letter grading.

C290. Current Literature in Statistics. (2) Seminar, one hour. Topics in recent literature in statistical areas by means of lectures and informal conferences with staff members. S/U grading.

C291SL. Service Learning and Community Learning Seminar. (1 to 2) Seminar, two hours. Introduction to various statistical packages for graduate students. How to handle data in different packages (input, output, data management, treatment of missing data), general syntax of different programming languages, and good practice for writing own statistical functions. S/U grading.

C292. Graduate Student Statistical Packages Seminar. (1 to 2) Seminar, two hours. Introduction to various statistical packages. How to handle data in different packages, input, output, data management, treatment of missing data, general syntax of different programming languages, and good practice for writing own statistical functions. S/U grading.

C294. Scientific Writing. (2) Seminar, two hours. Development of the capacity for presents representations of statistical data. Objectives and techniques of scientific writing and practice with different forms of professional writing. Participation in oral presentations of student work. S/U or letter grading.


C297SL. Service Learning and Community Learning Seminar. (2 to 4) Seminar, three hours; fieldwork, 10 hours. To further knowledge by applying what students have learned in class to an actual service work setting under guidance of faculty mentor. Interaction with nonprofit organizations can be either on location or over the Internet. May be used for MS thesis; research paper/project required. S/U or letter grading.

C375. Teaching Apprenticeship Practicum. (4) Seminar, one hour. Preparation: appointment as teaching assistant, associate, or fellow. Teaching apprentice ship under active guidance and supervision of regular faculty member responsible for content 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 of data analysis and statistical inference and how these are applied in wide variety of settings. Arc of statistical investigation, including data collection, data exploration, 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. Statistical solutions to complex data analysis and/or experimental design problems encountered by biology graduate students in their own research. May be repeated for credit. S/U 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 theorems, with emphasis on real-world applications. Estimation and statistical inference. Random variables and their distributions; random vectors, their means, variances, variance covariance matrix; and important limit theorems such as central limit theorem.


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 forms of data, working with databases, data cleaning, valida- tion, transformation, exploratory data analysis, and in- troductory data visualization and data mining tech- niques. Exploration of open source, big data security, ethics, and scalability. Introduction to and use of va- riety 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. Recommended: courses 10, 20, and 101A, or equivalent level of discipline. Limited to Master of Applied Statistics students. En- forces students working knowledge of basic concepts underlying most important multivariate techniques, with overview of actual applications in various fields, and with experience in using such techniques on problem of their own choosing. Addresses underlying mathematics and probability, including multivariate normal distribution, maximum likelihood estimation, classification, and resampling. Graphics and real examples used to illustrate techniques. Analyses of both real and simulated data. S/U or letter grading.

412. Advanced Regression and Predictive Model- ing. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. En- forces students working knowledge of basic concepts underlying most important multivariate techniques, with overview of actual applications in various fields, and with experience in using such techniques on problem of their own choosing. Addresses underlying mathematics and probability, including multivariate normal distribution, maximum likelihood estimation, classification, and resampling. Graphics and real examples used to illustrate techniques. Analyses of both real and simulated data. S/U or letter grading.
Upper-Division Course
199. Directed Research in Surgery. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

THEATER
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Scope and Objectives
The Department of Theater offers comprehensive training for the profession, including study of theater’s long history and rich literature. Drawing on this vibrant heritage, the curriculum promotes an awareness of theater as a global practice embodying the contributions of diverse cultures and explores theater and performance as a form for reflecting the human experience. Students engage in theatrical performance in a community where creativity and critical thought combine in the exploration of the artistic and intellectual challenges inherent in theater making. Manifesting talent and promise as well as representing a wide range of backgrounds and interests, prospective students are selected by the faculty through auditions and interviews in cities throughout the U.S.

At the undergraduate level, students receive education in acting, design and production, directing, formal and textual analysis, musical theater, performance studies, and playwriting, all within the 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 fieldwork setting, communicate effectively orally and in writing, and engage with a community of artists and scholars presenting theatrical work.

Theater BA
Capstone Major

The Theater BA provides students with a liberal education by combining critical study of theater and performance with experiential practice in one or more of its component parts. Students explore acting, design, directing, formal and textual analysis, playwriting, and production to build a foundation for future creative work. Specialized and advanced training is available to prepare students for a variety of careers, further training, or graduate study. At the upper-division level, students may choose from an array of advanced elective courses including those in acting, design and production, directing, musical theater, playwriting, theater history, and dramatic literature. Internships in areas such as producing and casting are also available.

Learning Outcomes
The Theater major has the following learning outcomes:

• Demonstrated broad knowledge of fundamentals 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. All applicants must also sign up for an audition 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, 101C, one course from 102A through 113, 131C or 163C or 180 (capstone seminar), 150 (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 emphasis or who wish to pursue an individualized plan are expected to meet with the undergraduate vice chair at the beginning of each year to plan their course of study.

Theater Minor
The Theater minor is designed for students who wish to augment their major program of study with a series of courses that promote the study of theater as a global phenomenon for reflecting the human experience. The minor consists of a selection of lower-division courses that expose students to the fundamental aspects of theatrical production, as well as acting, writing, and directing. Upper-division courses offer more focused study of those areas, as well as theater design, history, education, and theater of non-Western cultures.

To enter the minor students must be in good academic standing (minimum 2.0 grade-point average), have completed at least one approved UCLA theater minor course with a grade of C or better, and file a petition at the Student Services Office, 103 East Melnitz Building, 310-206-8441. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by each student’s school or College.

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, 102B, 102C, M103A through M103G, 105, 106, 107, 108, M109, 110, or 113, and four courses from 118A, 118B, 118D, 120A, 120B, 120C, 121, 123, 130A, 138, 139, C146A, C146B, C146C, 149, 195. A minimum of 20 units applied toward the minor requirements is to 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 average of 2.0 or better in 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 Graduate Council of the UCLA Academic Senate voted to suspend admissions to the Theater CPhil and PhD degrees effective fall quarter 2014. Suspension of admissions to the Theater MA degree was granted some time ago.

The Department of Theater offers a Master of Fine Arts (MFA) degree in Theater and Candidate in Philosophy (CPhil) and Doctor of Philosophy (PhD) degrees in Theater and Performance Studies.

Theater
Lower-Division Courses
1A-1B-1C. Introduction to Dance for Music Theater. (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.
2. Tai Chi. (1) Studio, two to four hours. Emphasizes proper form, etiquette as coexistent 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.
4. Israel and Palestine in Literature and Media. (5) Lecture, three hours; discussion, two hours. Readings in English. Exploration of Israel and Palestine through artistic, cultural, and political modes of analysis. Examination of selected works of literature, theater, and film dramatic by Israeli, Palestinian, and Western artists, looking beyond facile cultural clichés to deeper insights. Letter grading.
10. Introduction to Theater. (5) 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. Understanding of and access to live theatrical events and enhanced appreciation of value of theater to society; development of critical skills through consideration of representative examples of theatrical production from Europe, Asia, Africa. P/NP or Letter grading.
11. Approaches to Interpretation of Theater and Performance: Global Perspective. (5) Seminar, four hours. Introduction to basic methods of interpretation in theater and performance throughout world. Topics illustrated by faculty members and guest speakers, with emphasis on off-campus theater. Letter grading.
12. Introduction to Performance. (4) 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. (5) Lecture, four hours. Provides base for subsequent study in theater. Development of techniques of play reading and habits of scholarship useful to further study in each of theater’s subdisciplines, including acting, directing, design, playwriting, and critical study. Letter grading.
14A-14B-14C. Introduction to Design. (5–5–5) Lecture, three hours; studio, six hours. Exploration of visual interpretation of drama. Study of styles and techniques of design, collaborative role of designer, principles of design for scenery, lighting, costumes, and sound. Both technical and aesthetic groundwork for further study. Letter grading.
15. Introduction to Directing. (4) Lecture, two hours; studio, four hours. Investigation of role of director in theatrical production and theories of play direction, with emphasis on analysis and interpretation of dramatic work and its realization in production. Letter grading.
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of greatest intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
20. Acting Fundamentals. (4) Studio, four hours. Introduction to interpretation of drama through art of actor. Development of individual insights, skills, and disciplines in presentation of dramatic material to audiences. P/NP or letter grading.
23. Musical Literacy for Singing 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.
24A. Actor’s Voice. (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.
25. Articulation and Body. (2) Formerly numbered 25A. Studio, three to four hours. Physical awareness for actors, concentrating on warming up, relaxation, control, stunts, gymnastics, martial arts, and use of weapons. Letter grading.
26. Alexander Techniques. (2) Studio, three hours. Study and practice in Alexander techniques as method of developing balance, poise, and coordination of body and mind. Exploration of use of rhythm to expand movement potential of actors and relevant use of visual arts and animal studies to character development and to expansion of movement potential. P/NP or letter grading.
27. From Vaudeville to Standup Comedy. (4) Studio, three to four hours. Exploration of many aspects of comedy using American vaudeville traditions, acts, and performers as historical base to experience important of rhythm, timing, delivery, speech, and body. Performance will be a comedy, to find value of improvisation/imagination as well as innovative writing skills in all comic forms, to discover how comedy draws from so many art forms, including music, song, storytelling, clowning, magic, design, and tumult/stunts, and to build overall confidence/ease 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 movement. May be repeated for maximum of 12 units. Letter grading.

30. Dramatic Writing. (4) Studio, three hours. Intended for Theatre minors and other nonmajors. Exploration 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 (1–1–1) Studio, four to five hours. Exploration of muscular dynamics and development of singing techniques for musical 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 one or more of 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) Lecture, three hours. Exploration of laboratory experience in one or more of various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be taken for maximum of 8 units. Letter grading.

95. Introduction to Community or Corporate Internships in Theater, Film, and Television. (2 to 4) Seminar, six to 12 hours. Limited to freshmen/sophomores. Internship at various theaters, studies, or entertainment organizations. May be repeated for maximum of 4 units. Individual contract with supervising faculty member required. 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.

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). May be taken for maximum of 4 units. Individual contract with supervising faculty member. Letter grading.

Upper-Division Courses

101A. Making Theater. (3) Lecture, four hours; discussion. Exploration of traditional performance traditions in terms of how they were produced, including training techniques, archive practices, and forms of history. Examples include classical Greek tragedy, Noh and Kabuki, Quem Queritis/English medieval festival plays, Sar- skrit drama, Yoruba/Efugun, Yaqui dance drama, depending on faculty and resources available. Letter grading.

101B. Reconstructing Theatrical Past. (5) Lecture, three hours; discussion, one hour. Reconstructing theater is understood in several ways: construction of performance of new Globe and of specific productions and traditions such as neoclassicism that seem to reestablish classical traditions. Letter grading.

102A. Contemporary Chicano Theater: Modern Civil Rights Era to Black Lives Matter and Beyond. (4) Lecture, three hours. Examination of black theater from Black Arts Movement of 1960s until today. Exploration of social and historical implications of work, and aesthetic experimentation and contemporary African American playwrights and movements. Letter grading.

104D. New Playwrights, New Playwriting. (5) Seminar, three hours. Required for students in playwriting sequence. How to approach diverse range of new plays currently changing American theater. Con- temporary look at plays written in last 15 years and how they reflect society. Reading of plays to build skills of manuscript analysis; development of working vocabulary of dramatic elements and understanding of different styles of acting, directing, and design that playwrights of today draw from. Letter grading.

130A. African American Theater History: Slavery to Mid-1800s. (4) Same as African American Studies M103A.) Lecture, three hours. Designed for juniors/ seniors. Exploration of antebellum material on history and literature of theater as developed and performed by African American artists in America from slavery to mid-1800s. Letter grading.

130B. 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 minstrel material on history and literature of theater as developed and performed by African American artists in America from minstrel stage to rise of American musical. Lecture grading.

130C. Origins and Evolution of Chicano Theater. (5) Same as Chicano Studies M103C.) Lecture, three hours. Designed for juniors/seniors. Exploration of ex- tant material on history and literature of theater as developed and performed by Chicano American artists in America from origins to mid-1800s. Letter grading.

130D. Contemporary Chicano Theater: Beginning of Chicano Theater Movement. (5) Same as Chicana and Chicano Studies M103D.) Lecture, three hours. Analysis and discussion of historical and political events from 1965 to 1980, as well as theatrical traditions that led to emergence of Chicano theater. Letter grading.

130E. Modern African American Drama: Harlem Renaissance to Black Arts Movement. (4) Same as African American Studies M103E.) Lecture, three hours. Survey and examination of African American plays from 1920s until birth of modern civil rights era. Examination of sociocultural evolution out of which plays were created that illustrate development of African American playwrights and their significant influence in creation of diversified American theatrical tradition. Letter grading.

130F. Native American Theater. (3) Lecture, three hours. Study of American Indian as theater art form. P/NP or letter grading.


1303. Israel and Palestine: Conflicts, Cultures, and Arts in Middle East. (4) Lecture, three hours. No background on or prior interest in history or region or arts required. Land variously known by names of Zion, Holy Land, Palestine, and Israel is not just one place. It is a realm of imagination, envisioned and self-reenvisioned throughout history. It is at once real and surreal, sturdy and fragile, all-enduring and ephemeral. Examination of selected works of litera- ture, performance, visual, film, and media by Is- raeli and Palestinian artists, as well as Western artists with interest in region. Looking beyond headlines and facile cultural clichés for deeper insights arts can offer in cultural conflict too large, to emerge with surprising conclusions. Letter grading.


140D. New Playwrights, New Playwriting. (5) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of post-Renaissance architectural and inter-ior decor as manifestation of cultural, social, eco- nomic, and political influences to provide historical framework for design of scenic costumes, and lighting for theater, film, and television. May be repeated once for credit. Concurrently scheduled with course C404E. Letter grading.

140E. History of Design Décor Part I: Architecture and Decor—Antiquity to Early Neoclassical. (5) 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 scenic costumes, and lighting for theater, film, and television. May be re-peated once for credit. Concurrently scheduled with course C404E. Letter grading.

140F. History of Design Décor Part II: Architecture and Decor—Industrial Revolution to 21st Ce- ntury. (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 scenic costumes, and lighting for theater, film, and television. May be repeated once for credit. Concurrently scheduled with course C404E. Letter grading.

140G. History of Design for Performance Produc- tion Part I: Historic Costume from Prehistoric to Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Design of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of history of Western costume and civilian at- tire. May be repeated once for credit. Concurrently scheduled with course C404G. Letter grading.

140H. History of Design for Performance Produc- tion Part II: Historic Costume from Neoclassical 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 scenic costumes, and lighting for theater, film, and television. May be repeated once for credit. Concurrently scheduled with course C404H. Letter grading.

140I. History of Design for Performance Produc- tion Part III: Historic Costume from Prehistoric to Neoclassical to 21st Century. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of historic costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of history of Western costume and civilian at- ture with global emphasis. May be repeated once for credit. Concurrently scheduled with course C404I. Letter grading.


107. Drama of Diversity. (5) Lecture, three hours; discussion, one hour (when scheduled). Investigation of diversity in American society as manifested in dramatic works and theatrical presentations. P/NP or Letter grading.

108. Undergraduate Seminar: History and Criticism. (5) Seminar, four hours; seminar, limited to 15 students. Selected topics in history and criticism of theater and performance. Study of how experimental theaters originate, how they imagine their form of performance, their audience, and their goals. Concentration on theater that regarded themselves, in some way, as experimental. Examples primarily from theaters within U.S. from 1960s to present, although examples from other countries, specifically Poland, also considered. Letter grading.

M109. Art and Performance: Interdisciplinary Approach to Collections of Getty Center. (4) (Same as Honors Theatre, M116A) Seminar, four hours; discussion, one hour. Drawing from objects in five major collections at Getty Museum, focus on five parallel historical periods in which political, social, and aesthetic philosophy of the time is reflected in musical and dramatic performance. Letter grading.


111. Special Topics in Critical Studies. (5) Lecture, three or four hours. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit. P/NP or letter grading.

M114. Variable Topics in Performance and Disability Studies. (4) (Same as Disability Studies M114.) Seminar, four hours; discussion, one hour. May be repeated for credit. P/NP or 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 inter- relationships 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 designed to examine racial stereotypes, sexual harassment, and other issues that divide members of campus community, as well as issues that divide campus from Los Angeles community. Selected to increase social and political awareness of problems and ideas fundamental to in- tellectual development, exercises and games nurture skills and attitudes useful in facilitating discussions between actors and audience participants. Use of techniques of sensorimotor training, physical stimuli. Letter grading.

118D. ArtsBridge Teaching Practicum. (4) Lecture, four hours. Requisites: courses 118A, 118B. Develop- ment of K-12 theater education program with specific core curricula. Collaboration with class- room teacher to identify core subject to be taught. Language arts, science, history, mathematics, and social sciences as possible curricular areas. Devel- opment 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 Califor- nia Teaching Content Standards, objectives, moti- vation, 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. P/NP or letter grading.

120A-120B. Acting and Performance in Film. (5-5) Lecture, six hours. Exploration of acting and perfor- mance 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 discussions, examination of methods, styles, and performances of some of world's most highly regarded actors and their work. Letter grading.

121. Acting Workshop. (2) Studio, to be arranged. Requisite: course 20. Courses 160, 163A, 163B, and 163C may be taken concurrently. Workshop that pro- vides 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 to character development. History and overview of hair and makeup in fashion and motion pictures. Collaboration of makeup artists and hairstylists with costume designer, actors, production designer, and director to conceptualize people in 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 pro- ductions. Concurrently scheduled with course C222. Letter grading.


124A-124B-124C. Voice and Speech II. (1–1–1) Studio, three to four hours. Development of voice and speech techniques for stage. Letter grading.


125A. Topics in Partnering for Performer. (2) Studio, three to four hours. Requisite: course 25. Explor- ation of physical partnering in performance, within established methodology. Topics may include contact improvisation, vintage dance, alikido. Letter grading.

125B-125C. Movement and Combat II. (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.

125D-125E-125F. Movement and Combat III. (1–1– 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.


128A. Acting, Voice, and Movement Workshops II. (2) Studio, four to six hours. Study of advanced acting techniques, 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 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. Overview of individual contributions in collaborative effort; examina- tion of distinctiveness and interrelations among these arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently sched- uled with course CM229. P/NP or letter grading.


130B. Fundamentals of Playwriting II. (4) Lecture, three hours plus conference. Requisite: course 130A. Study in original material for theater, its preparation and development. Designed to give further insight into critical and creating aspects of short and full- length plays and guidance in completion of one-act and full-length plays. May be repeated twice for credit. P/NP or letter grading.

130C. Writing for American Musical Theater. (4) Lecture, three hours. Study of scriptwriting techniques used in writing libretto for musical theater: opening numbers, romance, subplots, and comedy. May be repeated once for credit. P/NP or letter grading.


C133A. Script Development Workshops. (4 to 8) Lecture, three hours; studio, four to 24 hours. Guided process of script development, with emphasis on communication between writer and producer, and professionalism. 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 first year 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 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.

135B. Singing for Musical Theater II. (1) Studio, five hours. Designed for Theater majors. Exploration of vocal styles and development of singing techniques for musical theater. Letter grading.

135C. Musical Theater Vocal Styles: Legitimate/Operaetra. (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 jazz, legitimate/operetta music, with emphasis on vocal and body strengthening exercises and solo song coaching. Letter grading.

135D. Musical Theater Vocal Styles: Rock: Roll. (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 rock music, with emphasis on vocal and body strengthening exercises and solo song coaching. Letter grading.

135E. Singing for Musical Theater III. (1) Studio, five hours. Designed for Theater majors. Exploration of vocal styles and development of singing techniques for musical theater. Letter grading.

135F. Singing: Individual Instruction. (1) Studio, one hour. Private vocal coaching with emphasis on focusing on breath support, vocal shape, range expression, and overall mastery of vocal instrument. May be repeated four times for credit. Letter grading.

136. Advanced Acting for Stage. (4) Studio, four hours. Requisite: course 123. Study and practice of art of acting through progression to more advanced acting problems. May be repeated twice for credit. Concurrent enrollment with same instructor not permitted. Total units for courses 136, 137A, 137B, and 137C may not exceed 12 units. Letter grading.

137. Emerging Technologies and Their Uses in Live Performance. (4) Seminar, four hours. Survey of major emerging and contemporary technologies and their potential uses in and impact on live performance, from augmented and virtual reality to electronic text and digital theater, and Modern approaches to artificial intelligence. Offers solid basis for engaging in future collaborations with technologists, for self-study of new technologies, and, for those already working in digital technologies, theoretical background for engaging with social context of these technologies. Concurrently scheduled with course C437. P/NP or letter grading.

138. Special Problems in Performance Techniques. (4) Studio, four hours. Study of complex problems in voice, movement, and acting. May be repeated twice for credit. P/NP or letter grading.

139. Play Reading and Analysis. (5) Lecture, three hours. Investigation of dramatic texts, with focus on play structure, plot, character, dialog, ideas, and various other elements essential to effective theatrical interpretation and realization. Letter grading.


C140B. Advanced Programming for Entertainment Design. (4) Studio, three hours. Study and practice in object-based programming using MAX/MSP programming language to control sound and video. May be repeated once for credit. Concurrently scheduled with course C440B. Letter grading.

C140C. Advanced Projects in Programming for Entertainment Design. (4) Studio, 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 C440C. Letter grading.

C144A-C144B-C144C. Advanced Sound Design. (4–4–4) Lecture, four hours; laboratory, four hours. Concurrently scheduled with courses C444A-C444B-C444C. Letter grading.

C144A. (4) Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to performance environments, techniques associated with recording, mixing, processing, automation, and reproduction of dialogue, effects, and music tracks for the theater sound design. May be repeated once for credit. Letter grading.

C144B. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on analogous disciplines such as soundsculpture, computer music, and multitrack recording techniques to realize design. May be repeated once for credit. Letter grading.

C144C. (4) Lecture, four hours; laboratory, four hours. Study and practice in processing and mixing of live and recorded sound; mix-down of multitrack recordings; preparation of sound tracks and sound reinforcement in theater. Study of creation of sound effects, control of MIDI data, and design techniques for music theater. May be repeated once for credit. Letter grading.


C146A. (4) Lecture, three hours. Exploration of original theatrical experience through lectures, presentations, and seminar participation. Students form collaborative teams to conceive and propose interactive entertainment events. Letter grading.

C146B. (4) Lecture, three hours. Prototype development; two to five proposals to be more completely defined and developed. Students form collaborative teams for further conceptual development of their project proposals. May be repeated once for credit. Letter grading.

147A. Drafting. (4) Studio, four hours. Development of visual communication skills through drafting. Exploration of drafting for scenic and lighting designs. May be repeated once for credit. Letter grading.

147B. Drawing Scenery. (4) Studio, four hours. Introductory course for basic principles necessary for drawing, building, and scenic design for the theater. Letter grading.

148. 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. Letter grading.

149. Introduction to Design. (5) Lecture, three hours. Exploration of interpretation of drama through design, including study of styles and techniques of design, collaborative role of designer, principles of design for scenery, lighting, costumes, and sound. Both technical and aesthetic groundwork for further study. Investigation of techniques for realization of designs in production. Letter grading.

150. Theater Production and Performance. (1 to 2) Laboratory, three to six hours. Laboratory experience in various aspects of theater production, including performance in project or production, stage management, member of crew, or assignment as designer or director on production. May be repeated for maximum of 8 units. Letter grading.

C151A. Scenic Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Imaginative concept for design of a metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design. May be repeated once for credit. Concurrently scheduled with course C451A. Letter grading.


C151C. Production Design for Film, Television, and Video. (4) Lecture/studio, four hours. Study of role of art director, scenic design for single-camera and multicamera production, and set decoration. May be repeated once for credit. Concurrently scheduled with course C451C. Letter grading.


C152D. Lighting Design for Performances and Special Events. (4) Lecture, four hours. Requisites: courses C152A, C152B, C152C. Advanced topics in lighting design, including live performances for concerts, exhibits, and live events. Concurrently scheduled with course C452D. Letter grading.

C152E. Lighting Design for Dance. (4) Lecture, four hours. Requisite: course C152A, C152B, or C152C. Advanced topics in lighting design, concentrating on the live dance performance in all styles. Concurrently scheduled with course C452E. Letter grading.

C153A. Costume Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C; for transfer students, courses 14A, 14B, 14C. Preparation for design of theater costume. Study, text analysis, metaphor, and conceptualization. Investigation of design research process, composi-
tion, and style leading to visual presentation of design. May be repeated twice for credit. Concurrently scheduled with course C453A. Letter grading.


C153C. Costume Design for Film and Television. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C; for transfer students: course 149. Study of current professional costume design and wardrobe decisions for film and television, including the effect of differing media on design choices. May be repeated twice for credit. Concurrently scheduled with course C453C. Letter grading.

C153D. Projects in Costume Design Management. (4) Lecture, three hours. Examination of professional duties of costume designers, set costumers, and supervisors, especially management of production logistics, including but not limited to costume breakdowns, costing budgets, adhering to and overseeing them, as well as set costumer training for film and television, practicing on-set protocol, breakdown of daily responsibilities, and assembling set kits ready for load-in. Practice with professional resourcefulness to move from abstract to substantive problem solving, maintaining creative and collaborative environment while adhering to logistical obstacles and tasks. Letter graded. Concurrently scheduled with course C453D. Letter grading.

C153E. History of Costume Design in Movies. (4) Lecture, three hours; screenings, two to six hours. History of costume design in the context of 20th-century fashion and film history, including evolution of role of costume designer since early days of film industry. Role of costume designer and contribution of costume design to cinematic storytelling. Concurrently scheduled with course C453E. Letter grading.

C153F. Practice of Costume Design for Film Productions. (4) Lecture, three hours. Introduction to costume design as tool for storytelling, exploring integration of costume design and filmmaking process and what it takes to bring characters to life. Skills needed to effectively costume short narrative films, including script breakdown, collaboration with directors and actors, and understanding production schedules. Concurrently scheduled with course C453F. Letter grading.

C154A. Sound Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Introduction to sound design, including MIDI data, and design techniques for musical theater. Study of creation of sound effects, control of processing. Topics include use of delay, equalization, and reverb, and their application through preparation of scenes under rehearsal conditions. P/NP or letter grading.

C154B. Multimedia 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 demonstrations of wide variety of materials and techniques. Digital manipulation of watercolor, markers, pastel, and collage rendering. May be repeated twice for credit. Letter grading.

C155C. Digital Rendering. (2) Studio, four hours. Study and practice in rendering costumes, lighting, and scenic elements with combination of hand and digital rendering techniques. Coverage of rendering from life, enhancing final rendering with variety of computer programs. Development of sophisticated presentations for theater, film, and television productions. May be repeated twice for credit. Letter grading.

C155D. 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. Letter grading.

C155E. Life Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice in drawing of human form. Letter grading.

C155F. Costume Rendering. (2) Studio, four hours. Requisite: study of sketching and rendering techniques for rendering theatrical costumes, with emphasis on figure, clothing, and fabrics. Letter grading.

C155G. Scene Painting Techniques. (2) Studio, two hours; laboratory, four hours. Requisite: course 147A or 147B. Study of practical application of techniques for realization of scenic designs for theater, film, and television. Study of design, operation, and performance of lighting instruments, dimming equipment, and control systems, including automated fixtures, projection equipment, and computer systems for lighting. Concurrently scheduled with course C455B. Letter grading.


159. Fundamentals of Play Direction. (5) Lecture, two hours; laboratory, four hours. Course 121 may be taken concurrently. Basic theories of play direction and their application through preparation of scenes under rehearsal conditions. P/NP or letter grading.

C160. Fundamentals of Stage Production. (1–3) Lecture, two hours; laboratory, to be arranged. Creative participation as actor or stage manager in public presentation of departamental productions. May be repeated once for credit. Concurrently scheduled with course C260D. 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 project. Students direct one or more scenes or projects. May be repeated once for credit. Concurrently scheduled with course C263D. Letter grading.

C170. Design and Production Project. (4) Laboratory, eight hours. Requisite: course 14A, 14B, 14C. Experience as stage manager or designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs, or stage management in production. May be repeated once for credit. Letter grading.

C171A. Advanced Theater Laboratory. (1 to 4) Laboratory, to be arranged. Creative participation as actor or stage manager in public presentation of departamental 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 departamental productions. May be taken for maximum of 4 units. P/NP or letter grading.
172. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three to eight hours. Exploration and laboratory experience in one or more various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 24 units. Letter grading.

173A. Design Assignment: Assistant Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as assistant designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.

173B. Production Design Assignment: Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as designer, including preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.


174B. Project in Stage Management. (3) Studio, nine hours. Requisite: course 174A. Laboratory experience in professional duties of assistant stage manager, including participation as assistant stage manager in preparation, rehearsal, and performance phases of productions. May be repeated once for credit. Letter grading.

174C. Project in Stage Management. (4) Studio, 12 hours. Requisite: course 174A. Laboratory experience in professional duties of stage manager, including participation as stage manager in preparation, rehearsal, and performance phases of productions. Problems of unions, 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 to cue, preshow setup, performance reports, and quick change rehearsals. Letter grading.

175A-175C-175D. Summer Theater Workshops. (4 or 8 each) Laboratory, 12 to 24 hours. Participation in various aspects of theater production and performance linked to plays and performances appropriate to approach. May be repeated twice for credit. 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. Preparation of conceptual or creative project to provide culminating experience for student and production of creative or research work. May be repeated twice for credit. Letter grading.

181. Career Development for Actors. (2) Lecture, three hours; fieldwork, three hours. Limited to seniors. Study of career practices, career entry, and development for actors. P/NP or letter grading.

C165A. Role of Producer in Professional Theater. (2) Lecture, three hours. Study of structure governing economic and artistic decision-making processes in professional theater of America. Concurrently scheduled with course C128A. P/NP or letter grading.

C165B. Role of Manager in Educational and Community Theater. (2) Lecture, three hours. Study of artistic, social, and economic criteria in administration of educational and community theater. Concurrently scheduled with course C128B. 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.

196. Community or Corporate Internships in Theater, Film, and Television. (2, 4, or 8) Tutorial, eight, 16, or 24 hours. Limited to juniors/seniors. Internship at various theaters, studios, or entertainment organizations accentuating creative contributions, organization, and work of professionals in their various specialties. Students meet on regular basis with instructor and provide periodic reports of their experience. May be taken for maximum of 8 units. Individual contact with supervising faculty member required. Letter grading.

199. Directed Research or Senior Project in Theater. (2 to 8) Tutorial, three hours. Limited to juniors/seniors. Supervisor presents research or investigation under guidance of faculty mentor. Culating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


206. Themes in World Theater and Drama. (5) (Same as Film and Television CM206.) Seminar, three hours. Designed for graduate students. Individual units include participation of leading theater artist from history of world theater, with significant work was generated. May be repeated four times for credit. S/U or letter grading.

208A-208B. Dramaturgy I, II, (4 to 4)–4 Lecture, three hours; laboratory, one hour. Designed for graduate students. Letter grading. 208A. Theoretical and practical aspects of dramaturgy's work in contemporary theater. 208B. Continuation of study of theory and practice of dramaturgy.

208C. Practicum in Dramaturgy. (2 to 12) Laboratory, to be arranged. Requisites: courses 208A, 208B. Demonstration of competence in practice of drama- turgy through completion of approved dramaturgical assignment. May be taken for maximum of 12 units. Letter grading.

209. Theater Authors. (5) Seminar, three hours. Designed for graduate students. Investigation of work of one theater artist from history of world theater, with special emphasis on relationship to time in which work was generated. May be repeated four times for credit. S/U or letter grading.

210. Topics in World Theater and Drama. (5) Seminar, three hours. Designed for graduate students. Investigation of selected topics in world theater, drama, production, and architecture. May be repeated four times for credit. S/U or letter grading.

216A. Approaches to Representation. (5) Lecture, three hours; laboratory, one hour. Overview of strategies of representation from classical aesthetic theories to postmodern 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. Overview of key methodologies, methods, and debates of performance texts of self-identity structure between audience member or spectator 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 grading.

221. Introduction to Performance Studies. (5) Seminar, three hours. Investigation of performance as sustainable practice in traditional disciplines such as theater, music, dance, and film, and its role in thinking about human experience in fields such as philosophy, literature, cultural anthropology, linguistics, education, and law. Emphasis on establishing inter- and intra-play dialogues across many fields. Letter grading.

C222. 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 makeup artists and hairstylists with costume designer, actors, production designer, and director. May be repeated two times for credit. S/U or letter grading.

CM229. Contemporary Topics in Theater, Film, and Television. (2) (Same as Film and Television CM229.) 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. Overview of individual contributions and examination of distinctive and interrelationships among these arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated twice for credit. S/U or letter grading.

230A-230B-230C. Writing for Contemporary Theater. (4 to 8 each) Lecture, three hours; studio, two hours. Designed for graduate students. Letter grading. 230A. One-Act Play. Analysis of strategy and dramatic structure of selected contemporary short plays leading to guided completion and critique of student-written one-act plays. 230B. Full-Length Play. Analysis of strategy and dramatic structure of selected contemporary full-length plays leading to guided completion and critique of student-written full-length plays. 230C. Production. Collaboration of students with faculty mentor. Analysis of structural strategies, political implications, and technical demands of selected contemporary American plays leading to guided completion and critique of student work.

231. Special Topics in Playwriting. (4) Lecture, three hours. Analysis and practice of various aspects of playwriting. Variable content selected from topics such as comedy writing, docudrama, experimental theater, writing for film and television productions. Concurrently scheduled with course CM122. Letter grading.

232. Manuscript Analysis. (4) Lecture, three hours. Designed for graduate students. Critical and contextual study of dramatic television as employed by playwrights and screenwriters in selected examples of contemporary work. May be repeated once for credit. S/U or letter grading.
242. Introduction to Design in Production. (4) Lecture or studio, four hours. Introduction to process of design for entertainment, collaborative role of designer, and realization of designs in production. May be repeated once for credit. Letter grading.

243A-243B. Stage Design (3–4–4) Studio, four hours. Advanced study and practice in scenic design for theater. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design. May be repeated once for credit. S/U or letter grading.

244A-244B. Advanced Theater Production. (2 to 8) Studio, 12 to 24 hours. Designed for graduate students. Directed one-act play or project. Exploration of production with emphasis on production and presentation of theatrical production. Each course 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 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.

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.

247. Collaborative Project in Design and Production. (3 to 4) Studio, four hours. Designed for graduate students. Collaborative project in design, including analysis, conceptual development, and preparation of scenic, lighting, costume, or sound design. May be repeated once for credit. Letter grading.


251. Directing Post-Realist Drama. (4) Lecture, four hours; studio, 30 hours. Designed for graduate students. Problems in direction of post-realist plays through interpretation and laboratory scene work. Letter grading.

253. Production Project in Direction for Stage. (2 to 8) Discussion, 12 to 20 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.

C263D. Directing Project for Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requisites: courses 163A, 163B, 163C. Application of stage directing techniques in production of short play or project. Students direct one-act play or project. May be repeated once for credit. Concurrently scheduled with course C163D. Letter grading.

254. Directing Classical and Historical Drama. (4) Lecture, four hours; studio, 30 hours. Designed for graduate students. Direction of a play; interpretation and execution of historical or classical drama through medium of laboratory scene work. May be repeated once for credit. Letter grading.

255. Modern Theories of Production. (4) Lecture, four hours. Examination of modern theories of production from emergence of director in 19th century to present. Investigation of different responses to problems of creation and vital theatrical event in context of ongoing evolution of theater as art form. Examination of contribution of significant directors and movements; relation between theater and other forms of representation. Letter grading.

256. Theatrical Conceptualization. (4) Lecture, four hours. Examination of process of conceptualization in dramatic production; centrality of theatrical conceptualization in interpretation of dramatic text; exploration of range of possibilities inherent in different theatrical spaces and options in design components. Consideration of visual arts and music as sources of stimuli for theatrical conceptualization, with focus on collaborative aspect of theatrical production. Letter grading.

272. Production Practice in Theater, Film, and Digital Media. (1 to 8) Studio, three to eight hours. Preparation 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. Concurrently scheduled with course C285A. S/U or letter grading.

C285A. Role of Producer in Professional Theater. (2) Lecture, three hours. Designed for graduate students. Study of structure governing economic and artistic decision-making processes in professional theater. Designed for graduate students. Concurrently scheduled with course C185A. S/U or 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.

296A-296B. Special Studies in Theater Arts. (2 or 4 each) 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.

C404E. History of Design Décor Part I: Architecture and Decor—Antiquity to Early Neoclassical. (4) Lecture, four hours; studio, 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. 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 members responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

C404F. History of Design Décor 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.


C404H. History of Design for Performance Production Part II: Historic Costume from Neoclassical to 21st Century. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of historic costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of history of Western costume and civilian attire with global emphasis. Concurrently scheduled with course C104H. Letter grading.

C404J. History of Design for Performance Production: Selected Topics of Decor and Costume Design History. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Historic survey and in-depth exploration of selected periods and subcategories of decor and costume. Visual representation, with emphasis on influences of global diverse cultures. May be repeated three times for credit. Concurrently scheduled with course C104J. Letter grading.


240A, (4 to 8) Studio, six to 18 hours. Development of interpretative technique, beginning with study of dramatization of one's personal history. Scene work follows, with emphasis on off-stage preparations, improvisations capturing circumstances, life of character, and intentions of scene writing.

240B, (4) Studio, six to 18 hours. Scene work, usually from 20 to 30 minutes in length. Continuation of work on off-stage preparation, with further development of how actor goes about doing research and fieldwork on character being played.

240C, (4) Studio, six to 18 hours. Development of external technique through comedy and of skits, improvisation, physical humor, delivery of lines, rhythm, timing, and public cabaret. Fusion of internal; use of action and objective with external. Letter grading.


241B. Continued character behavior study through language and movement. Working on actions, objectives, and researching role. 241C. Comedy workshop. Exploration of craft of comedy and development of cabaret pieces.

242. Advanced Acting for Theater, Film, and Television. (8 to 12) Studio/laboratory, eight to 12 hours. Intensive performance experience. May be repeated for maximum of 24 units. Letter grading.


244A. Advanced Voice and Speech I. (2 or 4) Studio/laboratory, three to six hours. Development of voice and speech techniques for stage, including those of relaxation, breathing, resonance, and development of speaking voice. Speech training uses International Phonetic Alphabet to train students in standard American speech. Text work in poetry and prose. Letter grading.

244B. Vowels and Voice Placement. (1) Studio, three hours. Requisite: course 424A. Builds on course 424A. Introduction of vowel diphthongs and triphthongs; development of forward sound, including consistent thought energy. Exercises to develop, and text to implement forward sound, including consistent thought energy. Text and warm-up exercises also covered. Letter grading.

244C. Voice in Action. (1) Studio, three hours. Requisite: course 424A. Physical explorations and techniques for breath sourcing and increasing awareness of voice in action. Sensory and voice exercises. Water and Barini techniques, and Knight-Thompson model may also be explored. Letter grading.

244D-244F. Advanced Voice and Speech II. (2 or 4 each) Studio/laboratory, three to six hours. Advanced voice problems. Extension of first-year work, with increased demands on voice. Range, resonance, and breathing capacity extension. Articulation and phonetic alphabet. Text work in classical verse. Letter grading.

424G-424H. Advanced Voice and Speech. (2) (4)
Lecture/studio, three hours. Study and practice in object-based programming using MAX/MSP programming language. May be repeated once for credit. Concurrently scheduled with course C140A. Letter grading.

431A. Script Development Workshop. (4 to 8) Lecture, three hours; studio, four to 24 hours. Designed for graduate students. Guided process of script development, with emphasis on dramatic and performance aspects. May be taken for maximum of 6 units. Concurrently scheduled with course C133A. Letter grading.

431B. 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 production, artistic growth, and professional process. May be taken for maximum of 8 units. Letter grading.

431F. Advanced Voice and Speech III. (4-5-4) Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to performance spaces and their potential uses, and to the use 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.

435D. Advanced Movement I. (2 or 4) Studio/laboratory, three to six hours. Discovery of body’s unique language through exercises designed to explore and free total instrument. Development of flexible actor with range, expression, and confidence physically. May be repeated for maximum of 12 units. Letter grading.

435E-435F. Advanced Movement II. (2 or 4) Studio/laboratory, three to six hours. Discovery of body’s unique language through exercises designed to explore and free total instrument. Development of flexible actor with range, expression, and confidence physically. May be repeated for maximum of 12 units. Letter grading.

435G-435H-435I. 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 techniques. Letter grading.

436A-436B-436C. Alexander Techniques. (2 or 4 each) Studio, three to six hours. Study and practice in Alexander techniques as method of developing balance, poise, and coordination of body and mind. Exploration of use of rhythm to expand movement potential and self-awareness, and discovery of origins of variety of acrobatic and dance disciplines, including ballet, ballroom, period dance, and circus techniques. Letter grading.

436D. 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 character development, physical idiosyncrasies and acting tendencies, body and breath control. May be repeated once for credit. Letter grading.

441A-441B-441C. Lighting Design. (4–4–4) Lecture, three hours. Study and practice in object-based programming using MAX/MSP programming language to control light and sound. May be repeated once for credit. Concurrently scheduled with course C140A. Letter grading.

441D. Programmable Lighting and Media Techniques. (4) Lecture, three hours. Study and practice in object-based programming using MAX/MSP programming language to control light and sound. May be repeated once for credit. Concurrently scheduled with course C140B. Letter grading.

441F. Advanced Projects in Programming for Entertainment Design. (4) Studio, three hours. Study and practice in object-based programming using MAX/MSP programming language to control light and sound. May be repeated once for credit. Concurrently scheduled with course C140C. Letter grading.

441G. Art and Process of Entertainment Design. (4) Lecture, three 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 directors, and design for single- and multiple-camera productions. Each course may be repeated once for credit. Letter grading.

445A-445B-445C. Production Design for Film, Television, and Entertainment Media. (4–4–4) Lecture/studio, four hours. Study and practice in design of scenic environment for film, video, and entertainment media, including effect of differing media on design choices, role of production designers and art directors, and design for single- and multiple-camera productions. Each course may be repeated once for credit. Letter grading.


446A. Lecture, three 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. Letter grading.

446B. Lecture, three hours. Prototype development; two to five proposals to be completely defined and developed. Students form collaborative teams for further conceptual development of their project proposals. May be repeated once for credit. Letter grading.

448A-448B-448C. Costume Design for Film, Television, and Entertainment Media. (4–4–4) Lecture/studio, four hours. Study and practice in design of costume design for theatrical productions, ballet, opera, and musical theater. Each course may be repeated once for credit. Letter grading.

449A-449B-449C. Costume Design. (4–4–4) Lecture, four hours. Study and practice in costume design for theater. Immersion as imputes for design, text analysis, metaphor, and conceptualization, investigation of design research process, period style, and character analysis leading to visual presentation of design. Study of costume design for theatrical productions, ballet, opera, and musical theater. Each course may be repeated once for credit. Letter grading.

450A. Advanced Scene Design. (4 each) (Formerly numbered 443.) Studio, four hours. Advanced study and practice of scenic design for theater, with emphasis on cultivating imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design, as well as exploration of students’ individual cognitions and artistic process and re- finement of techniques. Each course may be repeated twice for credit. S/U or letter grading.

450A. Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to performance environments, techniques associated with recording, mixing, production, and reproduction of dialogue, effects, and music tracks for the theater sound design. May be repeated once for credit. Letter grading.

450B. Lecture, four hours; laboratory, four hours. Study and practice in recording and mixing of live and recorded sound; mix-down of multitrack recordings; preparation of sound tracks and sound reinforcement in theater. Study of creation of sound effects, control of MIDI data, and design techniques for multitrack theater. May be repeated once for credit. Letter grading.

450A-450B-450C. Production Design for Film, Television, and Entertainment Media. (4–4–4) Lecture/studio, four hours. Study and practice in design of scenic environment for film, video, and entertainment media, including effect of differing media on design choices, role of production designers and art directors, and design for single- and multiple-camera productions. Each course may be repeated once for credit. Letter grading.
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 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 C153E. Letter grading.

C453F. Practice of Costume Design for Film Productions. (4) Lecture, three hours. Introduction to costume design as tool for storytelling, exploring integration of costume design and filmmaking process and what it takes to bring characters to life. Skills needed to effectively costume short narrative films, including script breakdown, collaboration with directors and actors, and how to manage production challenges. Concurrently scheduled with course C153F. Letter grading.

C454A. Sound Design. (4) Lecture/studio, four hours. Introduction to sound and audio in acoustic, audio, and digital domain. Study and practice of technological recording equipment, 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. Study of current professional sound recording, re-recording, mixing, and synchronizing practices for film and television. Study of creation of sound effects, control of MIDI data, and design techniques for musical theater. May be repeated once for credit. Concurrently scheduled with course C154B. Letter grading.

C454C. Sound for Film and Television. (4) Lecture/studio, four hours. Study of current professional sound recording, re-recording, mixing, and synchronizing practices for film and television. 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 C154C. Letter grading.


C455A. Perspective Drawing. (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 demonstrations of wide variety of art media, including watercolor, markers, pastel, and collage rendering. May be repeated twice for credit. Letter grading.

C455B. Multimedia 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 demonstrations of wide variety of art media, including watercolor, markers, pastel, and collage rendering. May be repeated twice for credit. Letter grading.

C455C. Digital Rendering. (2) Studio, four hours. Study and practice in rendering costumes, lighting, and scenic elements of hand and digital rendering techniques. Coverage of rendering from life, enhancing final rendering with variety of computer-assisted formats to create polished sophisticated presentations for theater, film, and television productions. May be repeated twice for credit. Letter grading.

C455D. Model Making. (2) Studio, four hours. Study and practice in rendering costumes, lighting, and scenic elements in the form of model for representation of artistic designs from initial working prototypes to finished color models. Use of wide variety of materials and techniques for execution of model. Graduate students expected to produce models demonstrating higher level of proficiency and skill. Letter grading.

C455E. Life Drawing. (2) Studio, four hours. Requirements: course 147A or 147B. Study and practice in drawing of human form. Letter grading.

C455F. Costume Rendering. (2) Studio, four hours. Requirements: course 147A or 147B. Study of techniques for rendering theatrical costumes, with emphasis on figure, clothing, and fabrics. Letter grading.

C455G. Scene Painting Techniques. (2) Studio, four hours. Requirements: course 147A or 147B. Study of scenic painting techniques and materials and their relationship to color design and set elements. May be repeated once for credit. Letter grading.

C455H. Selected Topics in Graphic Representation of Design. (2) Studio, six hours. Group study of selected subjects in techniques for interpretation of design for theater. May be repeated once for credit. Letter grading.


C457D. Advanced Historical Costume Interpretation and Construction. (4) Lecture/studio, four hours. Introduction to costume design as tool for interpretation of one renowned artwork and as intrinsic element of art history and fashion. Analysis of costume and pattern making, while creating half-scale costume inspired by masterpiece and to gain familiarity with artist’s life and social milieu. Letter grading.

C458A. Scene Design Technology. (4) Lecture/studio, four hours. Study of role of director, scenic design for single-camera and multicamera production, and set decoration. May be repeated once for credit. Concurrently scheduled with course C158A. Letter grading.

C458B. Advanced Scene Design Technology. (4) Lecture/studio, four hours. Study of role of director, scenic design for single-camera and multicamera production, and set decoration. May be repeated once for credit. Concurrently scheduled with course C158B. Letter grading.


C458D. Introduction to Computer-Assisted Rendering. (4) Studio, four hours. Study of role of director, scenic design for single-camera and multicamera production, and set decoration. May be repeated once for credit. Concurrently scheduled with course C158D. Letter grading.


and materials for construction, finishing, and rigging of scenery and properties. Concurrently scheduled with course C158A. Letter grading.


460AF-460AW-460AS. Contemporary Issues in Di-rection. (1–1–1) Discussion, three hours. Designed for graduate students. Discussion of role of director in contemporary professional practice. Review discussion of directing and laboratory experiences in directing projects. Each course may be repeated for maximum of 4 units. Letter grading.

462. Advanced Directing. (8 or 12) Studio, 12 or 30 hours. Designed for graduate students. Advanced problems in directing theater, 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 conceptu-alization and preparation of dramatic work. Letter grading.

472. Production Practice in Theater, Film, Video, and Digital Media. (1 or 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 contributing artistic member of design team, creative re-sponsibilities 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 design and drawings for theatrical, film, operatic, and theatrical productions and assembling of design portfolio and résumé. Information about industry demands and protocol for portfolio presentation and review, with projects prepared under guidance of respective 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 (PhD) students who have responsibility to assist in teaching undergraduate courses in department. Discussion of problems common to teaching experience. Letter grading.

498. Professional Internship in Theater, Film, and Television. (4, 8, or 12) Tutorial, to be arranged. Full or part-time at studio or on professional project. De-signed for advanced MFA students. Internship at vari-ous film, television, or theater facilities acquaints with creative contribution, organization, and work of profes-sionals 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 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.

590A. 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.

590B. 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.

590C. 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.

590D. Directed Individual Studies: Design. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

590E. Directed Individual Studies: Acting. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

590F. Directed Individual Studies: Production. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations in Theater Arts. (2 to 12) Tutorial, to be arranged. Writing of prospects 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: advance to PhD candidacy. Research for and writing of PhD dis-sertation. May be repeated for credit. S/U grading.

Scope and Objectives

Available to all undergraduate students, the University Studies curriculum seeks to promote academic success and facilitate the transition of new students as they enter UCLA. Courses are tailored to specific undergraduate populations and are designed to introduce students to the research university and academic culture of UCLA. Beyond addressing themes of academic success, the courses also introduce students to the unique opportunities and experiences available at a large research university. For more information, contact Marian Gabra or David Maldonado.

University Studies

Lower-Division Courses

10A. ACE UCLA|Critical Strategies to Achieve Under-graduate Excellence for Incoming Freshmen. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10C, 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 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 scholar-ship. P/NP grading.

10B. ACE UCLA|Critical Strategies to Achieve Under-graduate 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 first-year 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, 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 scholar-ship. P/NP grading.

10C. ACE UCLA|Critical Strategies to Achieve Under-graduate 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 majors 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 scholar-ship. P/NP grading.

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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. Concentric 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 MArch in the Department of Architecture and Urban Design, an MA in Latin American Studies, or an MPH in Community Health Sciences and 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 program director or counselor.

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, 104, C115, M120, C147, Urban Planning 120 (unless taken under item 1), 121 (unless taken under item 1), 130, C133, 141, M150, M160, M165, M175, C184 and (b) up to two courses from Anthropology 146, Chicana and Chicano Studies 181, Geography 150, History 145A, 145B, 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 183SL—service learning project; (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 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
Urban Planning

Lower-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 these situations. 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 social theory, current growth trends, system of cities, urban economy and economic restructuring, traditional and alternative location theories, urban transportation, and residential location and segregation. P/NP or letter grading.

M122. Policy, Planning, and Community. (4) (Same as Asian American Studies M122.) Lecture, three hours; field laboratory. Project-oriented methods course on conducting needs assessment in Asian American communities. Geographic information systems (GIS) to be used to define problems and needs. Letter grading.

129. Special Topics in Urban Policy and Research. (4) Lecture, three hours. Examination of particular planning/policy subfield (e.g., economic development, housing and community development, international planning and development, land use, or urban design) in some depth. Specific topic area rotates depending on instructor. May be repeated for credit with topic change. P/NP or letter grading.

M130. Fundamentals of Urban and Regional Economics. (4) Lecture, three hours. Preparation: one introduction to microeconomics course. Most U.S. populations live in organized areas, and the world’s population is becoming more urbanized with each passing decade. National, state, and local governments are engaged in managing, planning, policy making, and financing urban growth. And, within this context, urbanizing, and making decisions can be influenced by understanding of economic forces acting on urban areas. Basic concepts related to economic perspective, including agglomeration economies, effects of scale, and specialization by cities and transportation. P/NP or letter grading.

C133. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to new approaches to urban studies, basic concepts and analytical approaches of urban political economy, with major emphasis on 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 crises, and urban gentrification. Concurrently scheduled with course C233. P/NP or letter grading.

CM137. Southern California Regional Economy. (4) (Same as Labor and Workplace Studies M180.) Lecture, three 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. Focus on major theoretical models that explain urban poverty and application of them in comparative context while exploring differences between 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 immigrant 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 vulnerable communities. Topics range from discussion of intersection between race and income, critical race theory, community development, residential segregation, spatial mismatch, and environmental justice to social justice. P/NP or letter grading.

M150. Transportation Geography. (4) (Same as Geography M149.) Lecture, three hours. Designed for juniors/seniors. 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.

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.

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, and special emphasis on incentives of polluters to reduce their pollution and incentives of local, state, and national governments 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. (3) (Same as Disability Studies M164A.) Seminar, three hours; discussion, one hour. 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 and the experiences of commuting. Concurrently scheduled with course C233. P/NP or letter grading.

M165. Environmentalism: Past, Present, and Future. (4) (Same as Environment M132 and Geography M132.) Lecture, three hours; discussion, one hour. Examination of history and origin of major environmental ideas, movements, or countermovements they spawned, and new and changing nature of modern environmentalism. Introduction to environmental history, how rise of modern sciences reshaped environmental thought, and how this was later transformed by 19th-century ideas and rise of American conservation movements. Review of politics of American environmental thought and contemporary environmental questions as they 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.


M167. Environmental Justice through Multiple Lenses. (4) (Same as Environment M167.) Lecture, three hours. Examination of intersection between race, class, and environment. Critical legal academic, U.S., with focus on issues related to social justice. Because environmental inequality is highly complex phenomenon, multidisciplinary and multipopulation approach is used. Use of alternative voices, including academic, interpreting, and taking action. P/NP or letter grading.

M171. Planning Issues in Latina/Latino Communities: Preserving and Strengthening Community Assets in Mexican and Salvadoran Los Angeles. (4) (Same as Chicana and Chicano Studies M171 and Labor and Workplace Studies M122.) Lecture, four hours. How community and economic development interact, role of assets in community development, and unique synergies and pitfalls that enable or disable communities from developing to their potential. How to strengthen and how to preserve community resources in Pico-Union neighborhood in Los Angeles. Research entails historical analysis, reviews, in-
Graduate Courses

M201. Theories of Architecture. (4) (Same as Architecture and Urban Design M201.) Lecture, three hours. Exploration of conceptual and historical structures that shape current issues in architectural theory. Readings in primary texts serve as framework for understanding nature of speculative inquiry in architectural context. Lecture. Preparation: successful completion of Urban Planning M202A-202B.

M202A-202B. Land Use. (202A: 3 or 4; 202B: 1 or 2) Lecture, three hours. Course 202A is enforced requisites to 202B. Exploration of 21st-century land-use public controls, private practice, and litigation in California for basic principles of land use and controls, and official mapping to regional growth management, sustainability, and environmentally sensitive land protection. Concurrently scheduled with Law 286. In Progress (202A) and S/U or letter grading (202B) grading.

M203. Housing Segregation, Housing Discrimination, and Evolution of Public Policy. (1 to 6 each) (Same as Law M526.) Seminar, three hours; two field trips. Course M203A is enforced requisites to 203B. Consideration of selected aspects of housing law and policy, including current federal and state housing subsidies; remedies of housing consumers; impacts of market discrimination against children, racial minorities, and women; and local governmental laws influencing cost and supply, such as antispreadetic and rent control legislation. Catalytic role of economic and community development and the evolution of housing supply also considered. Letter grading.

M203A-203B. Seminar: Housing Segregation, Housing Discrimination, and Evolution of Public Policy. (1 to 6 each) (Same as Law M526.) Seminar, three hours; two field trips. Course M203A is enforced requisites to 203B. Consideration of selected aspects of housing law and policy, including current federal and state housing subsidies; remedies of housing consumers; impacts of market discrimination against children, racial minorities, and women; and local governmental laws influencing cost and supply, such as antispreadetic and rent control legislation. Catalytic role of economic and community development and the evolution of housing supply also considered. In Progress (M203A) and letter (M203B) grading.

M204. Research Design and Methods for Social Policy. (4) (Same as Public Policy M218.) Lecture, three hours; outside study, nine hours. Limited to graduate students. How to become more sophisticated consumers and producers of qualitative and quantitative policy analysis. Emphasis on development of problem/question to study, reviewing previous research design course that guides students in selecting problem/question to study, review competing and alternative approaches to scholarship. Letter grading.

M205A-205B. MURP Comprehensive Examination: Applied Planning Research Project I, II. (4–4) Required of all second-year students completing applied planning research project, and instructors. Preparations of executive summary and poster synthesizing their work.

M206A. Introduction to Geographic Information Systems. (4) (Same as Public Policy M224B.) Lecture, three hours; laboratory, one hour. Preparation: successful completion of Applied Planning Research Project, and instructors. Preparations of executive summary and poster synthesizing their work.

M206B. Advanced Geographic Information Systems. (4) (Same as Public Policy M224B.) Studio, three hours. Required: course M206A or Public Policy M224A. Advanced topics in geographic information systems (GIS) utilizing geoprocessing tools in ArcGIS, spatial data processing and analysis, and spatial analysis. Letter grading.

207. Applied Microeconomics for Urban Planning. (4) Lecture, three hours. Preparation: passing score on microeconomics examination given first day of class. Practical use of economics in analyzing public resource allocation problems. Topics include review of marginal analysis, difference between equity and efficiency, public goods and services, environmental 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 planning 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/hypotheses, development of qualitative and quantitative methods of data collection, analysis, and reporting. 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 problem/question, framing 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.

211. Law and Quality of Urban Life. (4) Lecture, three hours. Introduction to law as urban system, differentially oriented toward the ordering of law and policy: broad array of urban issues examined, as is law’s role as partial cause and cure of urban problems. Examination of law as changing process rather than collection of principles, so that students develop facility to interact with law and lawyers in positive and forceful manner. S/U or letter grading.

212. International/Comparative Planning Workshop. (2 or 4) Seminar, three hours; field trips, five to 10 days. Topics of planning and policy in various international or domestic sites. Topics may include urban design, urban development, urban governance, law, environmental issues, transportation, infrastructure planning, housing development, community development, and/or physical planning. May be repeated for credit. S/U or letter grading.

214. Neighborhood Analysis. (4) Lecture, two hours; laboratory, two hours. Experience with GIS and statistical software useful but not necessary. Methods-oriented studio course, with focus on developing data and analytical skills required to profile and analyze neighborhood conditions. Working in teams, students develop quantitative neighborhood profiles that can be used in community planning and at other geographical levels (e.g., cities, counties, and regions). Students gain proficiency in experience and understanding of benefits that larger community. Data management and analysis, including accessing, cleaning, and presenting data. Letter grading.

195. Environmental Planning. (4) Lecture, three hours. Applications of environmental planning in developing countries. Emphasis on environmental quality and sustainability, implementation of environmental policies, and how to use graphic materials to support verbal presentations or written reports. Letter grading.

229. Special Topics in Planning Methods. (4) Lecture, three hours. Topics in planning methodology selected by faculty members. May be repeated for credit S/U or letter grading.

M230. Introduction to Regional Planning. (4) Same as Geography M230A. Lecture, three hours. Critical and historical survey of evolution of regional planning theory and practice, with particular emphasis on relations between urban development and development within Western and political philosophy. Major concepts include regions and regionalism, theories of regional growth and decline, regional economic systems, their geographies, and social and political factors in regions. Letter grading.

M231. Disaster Management and Research. (4) Lecture, three hours. Through readings and presentaton, examination of disaster management and response in both U.S. and developing countries. Explanation and implications of development that relate to economic vulnerability and political factors, in addition to acts of nature. Structured to allow students to focus on different disaster contexts and thematic as seen in reading and weekly sessions. Letter grading.

M232. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to new approaches to urban studies, basic concepts and analytical approaches of urban political economy, with major emphasis on American urban problems and restructuring of modern metropolises. Topics include historical geography of urbanization and development, processes of regional growth and decline, regional performances in globalized economies, and urban social and economic systems. Letter grading.


M235. Urban Planning / 729
cross-disciplinary perspectives. Development of ability to analyze major environmental and resource issues as well as to read, discuss, and write critically about environmental policy. Letter grading.

2.64. Environmental Law. (4 or 6) Lecture, three or four hours. Examination of field of environmental law through analysis of various legal issues and public policy; legal consequences of public decision-making strategies 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. S/U or letter grading.

264A-264B. Environmental Law. (264A: 3 or 4; 264B: 3 or 4) Three hours. Course 264A is enforced to requisite to 264B. Examination of field of environmental law through analysis of various legal issues and public policy: legal consequences of public decision-making strategies 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. S/U or letter grading.

M265. Environmentalisms: Climate Dimensions and Politics, Past, Present, Future. (4) (Same as Geography M265.) Lecture, three hours; discussion, one hour. Focus on conceptual and methodological theories and their practices in dynamic U.S. and international contexts. Issues of climate change, scenario planning, and matrix ecology, and their implications in both urban and rural contexts. Analysis of problems associated with increasing internationalization (or international implications) of environmental practices as part of both green and black economies. What does integrated environmental planning look like in this century? Letter grading.


265C. Food Systems. (4) Lecture, three hours. Review of array of food and production systems, systems of consumption, and systems of production to address most widespread human impacts on planetary biodiversity, landscapes, climates, and social systems. Letter grading.


M267. Environmental and Resource Economics and Policy. (4) (Same as Public Policy CM250.) Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 204 and 208. Survey of ways economics is used to define, analyze, and resolve problems of environmental management. Overview of analytical questions addressed by environmental economists that bear on public policies. Letter grading.

M268. Policy Analysis of Emerging Environmental Technologies. (4) (Same as Public Policy M245.) Lecture, three hours. Acquisition and utilization of economic, financial, planning, and policy analytic tools needed to evaluate factors that drive market adoption from early to middle market phases. Rooftop 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, 90 minutes. Topics in environmental analysis and policy selected by faculty members. May be repeated for credit. S/U or letter grading.

M270. Homelessness: Housing and Social Service Issues. (4) (Same as Social Welfare M206A.) Lecture, 90 minutes; discussion, 90 minutes; one field trip. Review of current status of homelessness: who homeless are, what social 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.

271A. Community Economic Development. (4) Lecture, three hours. Introduction to fundamentals of community economic development and neighborhood development strategies. Overview of planning approaches, important concepts, resources, and language of field, and major strategies for revitalization of neighborhoods. Letter grading.

271B. Labor and Economic Development. (4) Lecture, three hours. Exploration of economic development and identification of ways that labor and labor unions directly and indirectly influence and shape 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.

272A. Real Estate Development and Finance. (4) (Same as Architecture and Urban Design M272.) Lecture, three hours; discussion, two hours; outside study, eight hours. Requisites: courses 220A, 220B. Recommended for first-year students in community development and built environment area of concentration. Introduction to the development and financing process. Students will critically analyze the development of a project developed in years of federal and state programs to stem urban decay, and the economic, social, and political issues underlying field. Letter grading.

272B. Advanced Real Estate Projects. (4) Studio, three hours. Study and research of real estate development and design, and gain better ability to determine real estate project feasibility, deeper understanding 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. Design 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.

M275. Community Development and Housing Policies: Roles of State, Civil Society, and Nonprofits. (4) Lecture, three hours; discussion, one hour. Study, analysis, and research of public, private, and nonprofit sector policies, programs, and problems in community development and housing policy. Trends and processes of urban design in last century; examination of social, political, and economic development. Letter grading.

M276A-276B. Urban Housing. (1 to 8 each) (Same as Law M227.) Lecture, three hours. Course M276A is enforced requisite to 276B. Examination of past 40 years of economic, political, and social history of urban decline and improve housing in U.S.; comparison and contrast of legal and policy initiatives in areas of public housing, housing segregation, mortgage sub-
M286. Management Challenges and Tools for Nonprofit Sector. (4) (Same as Public Policy M226 and Social Welfare M290V.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Fundamental building blocks for successful management in nonprofit sector. Students develop management skills in strategic thinking/problem solving, project management, team building, and negotiation. Use of case studies to troubleshoot critical challenges, from management to creative problem solving, that nonprofit managers typically face. Letter grading.

M287. Politics, Power, and Philanthropy. (4) (Same as Public Policy M226 and Social Welfare M290V.) 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 movements. 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.

M288. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Public Policy M228 and Social Welfare M241E.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Introduction to history and strategies of community action for attaining social welfare objectives; research and field experience directed toward study of social problems within context of community planning; emerging trends in economic and social planning within framework of social change theory. Letter grading.

M289. 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 M241F.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Technical processes of problem solving regarding 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. Letter grading.

M291. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Architecture and Urban Design M271.) Lecture, three hours. Relationships 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. Letter grading.

M292. Elements of Urban Design. (4) (Same as Architecture and Urban Design M271.) Lecture, three hours. Introduction of basic knowledge of elements and methods of urban design. Multidisciplinary approach leading to understanding of political, socioeconomic, and technological framework of urban systems and its dynamic interrelationships. S/U or letter grading.

M293. Politics, Ideology, and Design. (4) (Same as Architecture and Urban Design M293.) Lecture, three hours. Exploration of cultural and political context of architecture and planning work. Examination of theory and practice from variety of perspectives applied to set of varied physical environments and to set of current spatialized projects. Consideration of theoretical propositions that are shaping present urban and architectural debate and concrete case studies where politics and ideology shape design process. Letter grading.

M294. Housing in Developing Countries: Policy Objectives and Options. (4) Lecture, three hours. Examination of relevance of public policies and their intended and unintended effects on housing demand and supply in developing countries. How definition of housing problems, and scope of solutions, has changed over time. Critical assessment of some key solutions that have been tried in past, their advantages, shortcomings, and resultant trade-offs, and likely directions for future housing policy. Letter grading.

M295. Introduction to Urban Humanities. (4) (Same as Architecture and Urban Design M295.) Seminar, six hours; studio, six hours. Core introduction to urban humanities. Analytical and descriptive methods of humanities paired with speculative and projective methods of architectural and urban design to better understand contemporary state of human environment. Focus on Los Angeles, with concepts seminar, methods laboratory, projects studio, and site visit components. Offered in summer only. S/U or letter grading.

M297. Current Issues in Urban Planning. (2 to 4) Seminar, three hours. Current issues in urban planning selected by students in conjunction with faculty members. May be repeated for credit. S/U grading.

M298. Special Topics in Emerging Planning Issues. (2 or 4) Seminar, three hours. Topics in newly emerging planning issues such as role of cutting-edge technology, innovative policies, and experimental programs. May be repeated for credit. Letter grading.

M375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel, academic advisor, academic counselor, faculty sponsor, 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.

M404. Joint Planning/Architecture Studio. (4) (Same as Architecture and Urban Design M404.) Lecture, one hour; discussion, one hour; studio, four hours. Opportunity to work on joint planning/architecture project for client. Outside speakers; field trips. Examples of past projects include Third Street Housing, Santa Monica; New American House for nontraditional households; Pico-Aliso Housing, Boyle Heights; working with resident leaders at Los Angeles City public housing developments. S/U or letter grading.

M470. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) (Same as Community Health Sciences CM470 and Environmental Health Sciences M470.) 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. S/U or letter grading.

M496. Field Projects. (4) Tutorial, four hours. May not be repeated for credit. S/U grading.

M501. 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.

M596. MA Research in Planning. (2 to 4) Tutorial, one and one-half to three hours. May be repeated once for credit for maximum of 8 units. S/U grading.

M597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4 to 12) Tutorial, four hours. May be repeated for credit by PhD students. S/U grading.

M598. 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.

M599. PhD Dissertation Research in Planning. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

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UROLOGY
David Geffen School of Medicine
379 Wasserman Building
Box 957383
Los Angeles, CA 90095-7383

Urology
310-794-8492
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, pediatric, and acquired, pediatric and adult, male and female, malignant and benign. The department functions to acquaint students with the skills necessary to manage these conditions in the initial stages and over the long term.

Instruction spans all four years of the undergraduate medical school curriculum but is concentrated during the clinical rotations. Students spend two weeks on the urology service during the third year and may return for an additional three-week elective rotation during the fourth year. The clinical experience includes time spent in the faculty and resident clinics, on ward rounds, and in didactic conferences that cover general urology, urological subspecialties, uropathology, and uroaradiology. Urology teaching settings include the Reagan UCLA, Harbor-UCLA, Olive View-UCLA, Santa Monica-UCLA, and West Los Angeles VA medical centers.

For more details on the Department of Urology and courses offered, see the department website.

Urology

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 Urology. (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.
Performing Arts Education
Interdisciplinary Minor
School of the Arts and Architecture
2101 Broad Art Center
Box 951620
Los Angeles, CA 90095-1620

Visual and Performing Arts Education
310-794-4822
Minor e-mail
Angelia S.-Y. Leung, MA, CMA, Chair

Faculty Committee
Lily Chen-Haftek, PhD (Music)
Perry M. Daniel, MFA (Theater)
David H. Gere, PhD (World Arts and Cultures/Dance)
Angelia S.-Y. Leung, MA, CMA (World Arts and Cultures/Dance)
Victoria E. Marks, BA (World Arts and Cultures/Dance)
Hirsch Perlman, BA (Art)
Karen H. Quartz, PhD (Education)
David J. Rousséve, BA (World Arts and Cultures/Dance)

Scope and Objectives
The Visual and Performing Arts Education minor is an interdisciplinary and interdepartmental series of courses designed to (1) introduce students to the field of arts education for multiple publics in general and specifically in relationship to the K-12 public school system, (2) introduce students to the profession of the teaching artist and to a broad range of careers in the arts, including K-12 teaching, community arts education, museum education, creative arts therapies, and arts advocacy and to a variety of arts-related programs and cultural agencies, including community arts centers, museums, after-school programs, and nonprofit arts institutions, (3) expand the ongoing dialogue and interaction between UCLA, extended Los Angeles community, K-12 public school system, and students in the arts, and (4) extend the School of the Arts and Architecture commitment to UCLA and community partnerships by linking teaching and research with 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 School of Art, Art History, Design, Media Arts, Ethnomusicology, Music, Theater, and World Arts and Cultures majors. To apply to the minor, students must have completed at least 50 percent of the lower-division requirements of their specific majors and Arts Education M102 with a grade of B or better, be in good academic standing with an overall grade-point average of at least 2.7, and submit a minor application, which includes a concentration proposal to be developed in consultation with the Visual and Performing Arts Education director.

Required Courses (28 to 32 units with a minimum of 24 upper-division units): (1) Core and capstone seminar requirement: Arts Education M102, M192, M192SL (Arts Education M192 and M192SL include a guided teaching experience), (2) arts education requirement: two courses selected from Arts Education 20, 101, 103, 105, 195 (minimum 4 units), 197 (minimum 4 units), (3) one upper-division Education course (list of recommended courses available from the Arts Education program office or the school Office of Student Services), and (4) one upper-division elective course (minimum 4 units) selected from Arts Education or, by petition, an arts education related course (list of recommended courses available from the Arts Education program office or the school Office of Student Services).

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Arts Education

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual and historical 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 engagements and arts education informed by fields of community engagements and social justice movements. By looking at community engagements as inclusive and social justice, examination of basic theories of creativity, artistic development, and community partnership, and history, philosophies, politics, and sociocultural trends of community engagement in American society. Attendance at UCLA arts presentations and introduction to creative process. Readings and discussions to understand community engagement and arts education as crucial elements of comprehensive education, with emphasis on writing process, including regular writing assignments that require students to read, analyze, critique, and evaluate community arts practices and arts education scholarship. P/NP or letter grading.

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
101. Selected Topics in Arts Education. (4) Formerly numbered Arts and Architecture 101.) 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, writing, visual and audio documentation, oral presentation, and visual 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) Formerly numbered Arts and Architecture 102.) 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 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.

103. 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 pedagogy and arts practice through variety of approaches that may include readings, visual and audio documentation, discussion, research papers, oral presentations, and relevant guest speakers. P/NP or letter grading.

105. Arts Programs in Correctional Institutions: History, Theory, and Practice. (4) Lecture, three hours; outside study, nine hours. Examination of attitudes of prison arts programming with correctional staff, artists working in prison, 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) Formerly numbered Arts and Architecture M192.) Seminar, three hours; outside study, nine hours. Enforced requisites: course M102. 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. (Formerly numbered Arts and Architecture M192SL) Seminar, three hours; practicum, three hours; outside study, six hours. Enforced requisites: courses M102, M192. Limited to seniors. Continuation of arts education training and supervised practicum for advanced undergraduate students participating in Visual and Performing Arts Education
minor. Students continue to implement and evaluate original arts education programs under guidance of faculty members and designated guiding teachers in K-12 public school settings. May be repeated for credit with consent of instructor. P/NP or letter grading.

195. Community Internships in Arts Education. (2 to 4) (Formerly numbered Arts and Architecture 195.) 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) (Formerly numbered Arts and Architecture 197.) 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.

WOMEN’S STUDIES

See Gender Studies

WORLD ARTS AND CULTURES/DANCE

School of the Arts and Architecture

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Lionel A. Popkin, MFA, Chair
Aparna Sharma, PhD, Undergraduate Vice Chair
Janet M. O’Shea, PhD, Graduate Vice Chair

Professors

Kyle G. Abraham, MFA, in Residence
Judith F. Baca, MA
Susan L. Foster, PhD
Daniel Z. Froot, MFA
David H. Gere, PhD
Victoria E. Marks, BA
Peter Nabokov, PhD
Janet M. O’Shea, PhD
Lionel A. Popkin, MFA
Allen F. Roberts, PhD
Mary Nooter Roberts, PhD
David J. Rousseau, BA
Peter M. Sellars, BA
David Delgado Shorter, PhD
Patricia A. Turner, PhD
Christopher A. Waterman, PhD
Cheng-Chieh Yu, MFA

Professors Emeriti

Judith B. Alter, EdD
Donald J. Cosentino, PhD
Irina Dosamantes-Beaudry, PhD
Elsie A. Dunin, MA
Pia S. Gilbert
Michael G. Jones, PhD
Angela S.-Y. Leung, MA, CMA
Judy M. Miltoma, MA
Colin H. Quigley, PhD
Marta E. Savigliano, PhD
Carol J. Scothorn, MA
Doris Siegel
Allegra Fuller Snyder, MA
Emma Lewis Thomas, PhD

Associate Professors

Anurima Banerji, PhD
Aparna Sharma, PhD

Assistant Professor

Tria Blu Wakpa, PhD

Lecturers

Jessica Bianchi
Gracelyn W. Coad, MA
Robert W. Een, 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
Willfried G. Souly
Ken Swift
Jason C. Tsou, MS
Natsumo Tomita
Margaret J. Williams

Adjunct Assistant Professor

Rosllyn K. Warby

Visiting Assistant Professor

Ann Carlson

Scope and Objectives

Defined by a dynamic blend of theory and practice, the Department of World Arts and Cultures/Dance (WACD) is led by a renowned faculty of scholars, activists, curators, film makers, and choreographers dedicated to critical cross-cultural analysis and art-making. The department is the place to make dances, explore digital media, curate exhibitions, become an arts activist, and develop scholarly expertise in culture and the arts. Multiple disciplines and artistic approaches are used to encourage students to position their work within broad social contexts.

In the World Arts and Cultures BA arts activism, visual cultures, and critical ethnographies are emphasized. The Dance BA integrates composition, training, and improvisation, while challenging students to locate dance politically, culturally, and historically. The MFA in 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.

**Undergraduate Study**

**Dance BA**

All students take a set of courses as preparation for the Dance major that focus on the integration of dance and critical analysis. For students who transfer into the major, depending on the year of entry and prior coursework, lower-division preparatory coursework may be waived or substituted. When students enter the major, they continue their studies of dance technique, composition, and analysis, and they also enroll in a primary and secondary research area.

The three research areas are (1) creative inquiry as research, (2) critical dance studies, and (3) dance and civic engagement. The creative inquiry 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 iden
tificatory practice are offered that enable students to analyze the rhetorical and ideological significance of dance. The dance and civic engagement area is grounded in the investigation and activist-oriented work of artists and the role of dance in the public sphere, and offers a wide range of courses in the nature of activism as well as opportunities for fieldwork, education, internshipships, and other forms of community involvement.

Students select one area as their primary area and another as their secondary area. Elective options provide further deepening of student knowledge and skills in any or all of the areas. Students may also consider courses from programs outside the department and may organize their course of study in relation to their particular interests.

Students who wish to confer with the departmental student affairs officer regarding program planning and major requirements should contact the undergraduate counselor at 310-825-8537.

**Learning Outcomes**

The Dance major has the following learning outcomes:

- Choreography of dances in various settings, cultural contexts, and media, with emphasis on progressive approaches
- Creative problem-solving of issues tied to arts and activism, dance-making, and producing in multiple formats, in an intercultural and interdisciplinary context
- Think critically about the relationship between esthetics and politics through choreography, written analysis, and multiple research methods
- Demonstrated advanced proficiency in at least two movement disciplines
- Analysis of vocabulary, location, and syntax of dance works
- Analysis of political, cultural, and historical implications of dance works
- Demonstrated ability to understand and implement collaboration in an art-making practice
- Written and oral recognition and synthesis of key concepts in critical dance studies

**Admission**

New students are admitted to the Dance major for fall quarter only. All applicants are reviewed individually, based on submission of a written research paper, transcripts, two letters of recommendation, and one personal essay. These supplementary materials are requested from students in mid-December, after the general UC application is received and processed, and are due back in the department 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 supplemental application process during fall/winter quarters for admission into the program the following spring or fall quarter. They are required to take selected departmental courses before and during the term in which they apply to the program (contact the student affairs officer for a list of selected courses). They must have a minimum 2.0 overall grade-point average, a minimum 2.0 GPA in all departmental courses taken, and no more than 90 quarter units at the time of application. All students are required to audition in early winter quarter and may be interviewed as part of the application process.

**Preparation for the Major**

Required: Dance 1, 16, 44, 45, 67A, 67B, 70.

**The Major**

The Dance major consists of 76 units of coursework.

Required: (1) Dance 101, 117A, 117B and (2) 10 units in the primary area and 5 units in the secondary area selected from the following:

- Creative inquiry as research—Dance 114, 116, 117C, 118, 119, 121, 163, 169, 170, 171, 174A, 174B, 180, or other upper-division courses with faculty approval
- Critical dance studies—Dance C145, C152, M157, 158, 159, 160, 161, CM168, C171, 182, World Arts and Cultures 199, or other upper-division courses with faculty approval
- Dance and civic engagement—Dance 165, 166, 167, C184, World Arts and Cultures 100A, 100B, 103, 114, 144, 160, 177SL, 195, or other upper-division courses with faculty approval (no more than 8 units of courses 114 and/or 160 may be applied toward this area). Students also have the option to propose a senior honors project through Dance 186A and 186B.

**Movement Arts/Dance Practices—Required:** A total of 48 units of practice courses. A minimum of two technique courses per term until completion is strongly recommended. Thirty of the total 48 units must be selected from Dance 6, 9, 13, 15, 56, 59, 63, 65, C106A, C113A, C113B, C115. 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, C112A, 116, 159, 160, World Arts and Cultures 55, 78, 80, 178. No more than 8 units of World Arts and Cultures 78 or 178 may be applied toward this requirement.

**Senior Honors Project**

Students may participate in a senior honors project consisting of 10 additional units. The project provides students with opportunity to demonstrate mastery and integration of knowledge and learned abilities from the major. The project may take various forms—from choreographic performance 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
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 communities 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 freshmen 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, 22, M23, or 51W.

The Major
The World Arts and Cultures major consists of 45 units of coursework.

Required: (1) World Arts and Cultures 100A or 100B, 104, 124; (2) a total of 20 units with a minimum of 12 units from one stream: stream 1 (arts activism) — World Arts and Cultures 103, 114, 120 (with faculty approval), 144, C146, C158, C159, 160, C164, C168, 174A, 174B, 174C, 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), C139, C141, C142, C146, C150, C151, 174A, 174B, 181, 195, 199, or other upper-division courses with faculty approval, stream 3 (visual cultures) — courses 120 (with faculty approval), M125A, M125AL, M125B, M125BL, M125C, M125CL, M126, M128, CM130, 133, C138, C139, C141, 143B, C145, C146, C152, 174A, 174B, 174C, M180, 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, documentaries, 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 the 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.

2. Moving Voice. (Formerly numbered World Arts and Cultures 5) Studio, three hours. Experiential investigation of voice as it relates to resonant, physical body. Working with primal qualities of voice and how it interfaces with breath, physical anatomy, and space around us. Physical approach to singing, with singing being defined in its broadest sense as all possible sounds emitted by human voice. May be repeated for credit without limitation. P/NP or letter grading.

3. Beginning West African Dance. (2) Studio, three hours. Beginning-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. P/NP or letter grading.


5. Beginning Martial Arts. (2) Studio, three hours. Beginning-level study of Tai Chi Chuan and other martial arts forms. May be repeated for credit without limitation. P/NP or letter grading.

6. 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.


8. Beginning Modern/Postmodern Dance. (2) Laboratory, four hours. Study of modern and/or postmodern dance movement. May be repeated for credit without limitation. 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.
44. World Dance Histories. (5) Lecture, three hours; discussion, two hours. Comparative framework for looking at dance practices through time as they have developed around world, questioning relation of dance to culture and politics and providing students with tools for investigating histories of any given dance form. P/NP or letter grading.

45. Introduction to Dance Studies. (4) Lecture, three hours. Enforced requisite: course 44. Introduction to discipline of dance studies, with focus on study of dance as key contemporary perspective on body. Multidisciplinary approach to dancing bodies conceptualized as social constructs, including attention to gender, race, class, and national identity. P/NP or letter grading.

52. Intermediate Special Topics. (2) Studio, three hours. Intermediate-level study of variable movement practices. May be repeated for credit without limitation. P/NP or letter grading.

56. Intermediate West African Dance. (2) Studio, three hours. Intermediate-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. P/NP or letter grading.


63. Intermediate Ballet. (2) Studio, three hours. Intermediate-level study of ballet as movement practice. May be repeated for credit without limitation. P/NP or letter grading.

65. Intermediate Modern/Postmodern Dance. (2) Studio, four hours. Intermediate-level work in modern and/or postmodern movement practices. Technical training with emphasis on increasing skill. May be repeated for credit without limitation. P/NP or letter grading.

67A. Theories and Methods in Dance Composition I: Languages. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisite: course 16. Examination of diverse movement sources from which dances are made. How do different choreographers envision vocabularies of movement they use? How do they select or create movement out of different strategies for their processes of creating 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. 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.

67C. Advanced Topics in Dance Composition. (4) Lecture, four hours; studio, two hours; outside study, six 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 visitors. 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.

67F. Theories and Methods in Dance Composition II: Processes. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisite: course 16. Examination of diverse processes through which creation of dance can take place. How do different choreographers conceptualize creating process of dance-making? What kinds of strategies do they use 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. Readings about and viewing of videos of selected artists’ work and their different strategies for creating languages of their dances for comparison. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

67G. Honors Seminar. (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 requirements for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in course at the time of registration for this course. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours. Grain per week per unit. Enforced requisites for lower-division students per unit. Entry-level research per unit. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

101. Theories of Dance. (4) Lecture, four hours; discussion, two hours. Enforced requisite: course 45. Ideas of dance, choreography, and movement have achieved broad resonance in contemporary performance. Theories and studies of social behavior. Examination of concepts and approaches to dance studies and deployments of its vocabulary within field and beyond, concentrated in four principal approaches: socio-historical, choreographic, analytical, and critical theory. Use of key ideas in dance to investigate allied areas of performance, embodiment, social constructions of identity and difference, and relationship between aesthetics and politics. Design of dance performances to illustrate link between theory and practice. How dance creates alternative modes of history and knowledge in range of cultural contexts. P/NP or letter grading.

106A. Advanced West African Dance. (2) Studio, three hours. Advanced-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. Concurrently scheduled with course C408A. P/NP or letter grading.

109A. Advanced Hip-Hop Dance. (2) Studio, three hours. Advanced-level study of hip-hop movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C409A. P/NP or letter grading.

113A. Advanced Ballet. (2) Studio, three hours. Advanced-level study of ballet as movement practice. May be repeated for credit without limitation. Concurrently scheduled with course C413A. P/NP or letter grading.

114. Performance Practicum. (1 to 4) Studio, three to 12 hours. Rehearsal and performance in selected choreographers’ work, limited to 20 students. Designed as adjunct to lower-division lecture course. May be repeated for credit without limitation. P/NP grading.

117A. Theories and Methods in Dance Composition III: Locations. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisites: courses 16, 67A, 67B. Examination of location of dancing impacts its meaning. How does occasion of dance, concert, festival, ritual, or celebration influence experience of it? What are factors that need to be considered when locating dance in one particular 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 performance spaces, stages, theaters, sidewalks, parks, temples, amphitheaters, village squares, and other site-specific locations that endow dance with specific significance and how various artists have worked with place in creation of dances. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

117B. Theories and Methods in Dance Composition IV: Impacts. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisites: courses 16, 67A, 67B. Examination of relation of dance to its audience. Synthesis of analyses undertaken in previous courses to determine how dances move their visitors. How do dances appeal to or address their audiences? How do dance vocabulary, sequencing, and location combine to create particular effects? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Different approaches to dance result in highly distinctive kinds of responses from audiences. Focus on creation of three in-depth studies, each of which endeavors to construct distinctive kind of response from viewers. P/NP or letter grading.

117C. Advanced Topics in Choreography. (4) Lecture, four hours; studio, two hours; outside study, six hours. Enforced requisites: courses 16, 67A, 67B. Directed exploration in composition, with focus on 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 imaging an abstraction; home, history, and memory; interculturalism; constructing identity. May be repeated for credit without limitation. P/NP or letter grading.

118. Advanced Interdisciplinary Composition. (4) Lecture, four hours; studio, two hours. Enforced requisites: courses 16, 67A, 67B. Directed exploration in composition, with focus on developing works that engage two or more disciplines, such as dance, music, visual art, performance art. Theoretical engagement with selected topics through lectures, readings, and discussions. May be repeated for credit without limitation. P/NP or letter grading.

119. Advanced Intercultural Composition. (4) Lecture, four hours; studio, two hours. Enforced requisites: courses 16, 67A, 67B. Directed exploration in composition, with focus on developing works that engage two or more disciplines, such as dance, music, visual art, performance art. Theoretical engagement with selected topics through lectures, readings, and discussions. May be repeated for credit without limitation. P/NP or letter grading.

122. Music and Dance Collaborations. (4) Studio, four hours. Requisites: courses 16, 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 choreographers, and composers to work together creating and developing material in their respective disciplines. Exploration of different forms and ways of approaching composition process of music and dance, presenting material on weekly basis, and developing skills for discussion, critique, and review. Concurrently scheduled with course C222; P/NP or letter grading.

C145. Selected Topics in Dance Studies. (4) Lecture, four hours; outside study, eight hours. Designated for juniors/seniors. 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 C245. P/NP or letter grading.

C152. History and Theory of Modern/Postmodern Dance. (4) Lecture, four hours; studio, two hours; outside study, six hours. Introduction to key figures in creation of modern dance, with special attention to

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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 C271. 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 in- quiry into practice and opportunities for students to reflect on their own work and that of others. Compo- sition 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, perfor- mance, 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, perfor- mance, 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 aes- thetic when they are combined. Analysis of record and documentary dance film, choreo-cinema, and im- pact of MTV, as well as integration of media with per- formance. Letter grading.

C180. 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 footage—stu- dents create their own dance for camera video proj- ects. Students gain deeper understanding of concep- tualization, 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 administra- tion, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, history and theories of pro- ducing, mission statements, budgeting, marketing, public relations, fund-raising, legislatures, and archiving. 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. Course 186A is requisite to 186B. Limited to senior Dance majors. Application of concepts, skills, and content from interdisciplinary major to individual projects. Methodologies may include critical, comparative, eth- nographic, and performance approaches. Lecture/ seminar format with Dance faculty during first term; faculty-directed presentations of individual projects during second term. 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 when content varies. P/NP or letter grading.

Graduate Courses

211A-211F. Advanced Choreography. (4 each) Lecture, two hours; studio, two hours. Theoretical as- pects of advanced choreography for students who have reached level of self-initiation of substantial cre- ative works. Reflection and realistic self-evaluation; critical course-acknowledged choreographers. S/U or letter grading.

222. 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- phers, and composers to work together creating and developing material in their respective disciplines. Exp- loration of different forms and ways of approaching creative process of making work by jointly presenting conceptual material on weekly basis, and developing skills for discussion, critique, and review. Concur- rently scheduled with course C122. S/U or letter grading.

C243. Production Arts Seminar. (4) Seminar, four hours. Theory and practice of production administra- tion, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, history and theories of pro- ducing, mission statements, budgeting, marketing, public relations, fund-raising, legislatures, and archiving. Concurrently scheduled with course C184. S/U or letter grading.

C245. Selected Topics in Dance Studies. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Selected topics in study of dance and corporeality. Course modules and classes for topics to be offered in specific term. May be re-peated 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; 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 choreo- graphy and writing. Concurrently scheduled with course C152. S/U or letter grading.

C268. Beyond Academia: Making Art in Real World. (4) Same as World Arts and Cultures C268B.) Lecture, four hours; outside study, eight hours. De- signed for graduate students. Focus on under- standing bureaucratic structures and regional histo- ries conditioning creation of art in real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course C168B. S/U or letter grading.

C271. 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 in- quiry into practice and opportunities for students to reflect on their own work and that of others. Compo- sition of production project required. May be repeated for maximum of 12 units. Concurrently scheduled with course C171. 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 footage—stu- dents create their own dance for camera video proj- ects. Students gain deeper understanding of concep- tualization, practice, theory, history, and current state of dance for camera. Concurrently scheduled with course C180. Letter grading.

C406A. Advanced West African Dance. (2) Studio, three hours. Advanced-level study of dance origi- nating 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 C146A. S/U or letter grading.

C409A. Advanced Hip-Hop Dance. (2) Studio, three hours. Advanced-level study of hip-hop move- ment practices. May be repeated for credit without limitation. Concurrently scheduled with course C190A, S/U or letter grading.
World Arts and Cultures

Lower-Division Courses


2. Lower Division Seminar. (5) Seminar, four hours; outside study, 15 hours. Variable topics seminar with focus on scholarly and practice-based research in arts. In-depth investigations of topics ranging from body in cultural context, interdisciplinary art-making, visual practice, material culture study of culture and performance, including individual and cultural identity through arts, creation of dance/theatrical performance, theoretical and analytical approaches to arts and culture, 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 comparative assignments, and/or practice-oriented processes. Substantial culminating project integrating theoretical and practical components of selected seminar topic 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 the field. Review of the concepts 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, hegemony, gender, race, class, and national identity. Letter grading.

21. Introduction to American Indian Studies. (5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Cultural/historical survey of role of folklore, development of Native American and influence of American experience in shaping folklore in American society; attention also to representative areas of inquiry and analytical procedures. P/NP or letter grading.

M23. Introduction to American Indian Studies. (5) (Same as American Indian Studies M103) Lecture, three hours; discussion, one hour; activity, one hour. Survey of selected Native North American cultures from pre-Western contact to contemporary period, with particular emphasis on early cultural diversity and diverse patterns of political, linguistic, social, legal, and cultural change in postcontact period. P/NP or letter grading.

24. World Arts, Local Lives. (5) Lecture, three hours; discussion, one hour. Introduction to study of indigenous worldview as they are expressed through art, myth, ritual, health practices, language, and ecology. With examples spanning globe, consideration of issues of colonialism, tradition, 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.

33. Colonialisms and Resistance. (5) Lecture, three hours; discussion, one hour. Introduction to study of indigenous worldviews as they are expressed through art, myth, ritual, health practices, language, and ecology. With examples spanning globe, consideration of issues of colonialism, tradition, 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 requisites: English Composition 3 or English as a Second Language. Examination of interactions among various modes of creative expression, role of style in daily life, life after death, and other-than-human life. Satisfies Writing II requirement. Letter grading.

520A. Art as Social Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Discussion of what constitutes artist's social responsibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of this world and powers of art. P/NP or letter grading.

520B. 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, perception, 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 responsibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of this world and powers of art. P/NP or letter grading.

100B. Art as Moral Action. (5) Lecture, four hours; discussion, one hour. Designed for 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, perception, and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

101. Theories of Performance. (5) Lecture, four hours; studio, two hours. Performance commonly refers to activities on proscenium stage. Explosion 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 performance works that engage with and amplify theories studied. P/NP or letter grading.

102. Ancient: East and West. (5) Lecture, four hours; discussion, one hour; 6003/6004 mandatory, 6005 mandatory. In-depth investigations of topics ranging from body in cultural context, interdisciplinary art-making, visual practice, material culture study of culture and performance, including individual and cultural identity through arts, creation of dance/theatrical performance, theoretical and analytical approaches to arts and culture, 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 comparative assignments, and/or practice-oriented processes. Substantial culminating project integrating theoretical and practical components of selected seminar topic 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 the field. Review of the concepts and illuminating many paths of discovery at UCLA. P/NP grading.

M79. Food Politics: Cultural Solutions to Political Problems. (5) (Same as Food Studies M79) Lecture, four hours; discussion, one hour. Examination of issues of environmental and public health effects of intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.

80. Video Tools and Techniques. (2) Laboratory, four hours. Introduction to video tools and techniques to train students in key techniques of video production. Basic and advanced技能培训 to shoot, edit and use video 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 exercises 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 exploring resources of department and University as whole. 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 grading.

99. Student Research Program. (1 to 3) 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.
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 without limitation. 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 specified term. May be repeated for credit with topic change. P/NP or letter grading.

121. Ethnography and Performance. (4) Lecture, four hours; four hours lab. Survey of some ways that ethnography and performance interrelate, as well as development of some preliminary approaches to effectively document performance events. Requisite: course M125B. P/NP or letter grading.

124. Introduction to Field-Based Research Methods. (8) Lecture, four hours; scheduled hours with laboratory tech support. It offers a survey of methods, techniques, and issues in conducting field-based research, including nature, uses, and limitations of major-data-gathering procedures, ethical concerns, sampling, data collection, fieldwork, interventions, and results as not only tangible and impersonal outcomes of inquiry but also personal and intangible. Through readings, discussion, and hands-on exercises, students will learn how to plan field projects and write proposals, prepare consent forms and deal 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 M126C and Chicana and Chicano Studies M186C.) Studio/lecture, six hours. Requisites: courses M125B, M125CL. 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. 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, M125CL. 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 development of 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 artist. Use of urban Los Angeles as textbook in urban space issues such as who is public, what is public space at end of 20th century, what defines neighborhoods, and do different ethnic populations use public space differently. P/NP or letter grading.

M128. Chicana Art and Artists. (4) (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.

M129. Food Customs and Symbolism. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to foodways, with particular attention to customs and symbols in China and other countries. Sensory realm, child rearing practices, foodsharing, food and identity, food and its emotional significance, auras and taboos, advertising, changing food habits, and American diet. Concurrently scheduled with course C225, 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 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 non-built and built environments, which are built and used by members of small scale, traditional, and transitional communities around world. Concurrently scheduled with course CM230, P/NP or letter grading.

132. Narrative and Oral Performance. (4) Lecture, four hours. Survey of concepts of story as text versus narrating as oral performance, studies of individual narrators, how stories are performed, 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.

133. 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 have hands-on experience with cultural history. May be repeated twice for credit. P/NP or letter grading.

C138. 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 convey cultural antecedents. Seminar covers range of American Indian art and craft traditions within fullest possible range of such contexts, with performance given its most generous definition. Study of specific artists, contexts, historical and cultural phases, special media, 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 objects. Concurrently scheduled with course C228. P/NP or letter grading.


CM140. Healing, Ritual, and Transformation. (4) (Same as Gender Studies CM143.) Lecture, four hours. Outside study, eight hours. Designed for juniors/seniors. Examination of role of healers, historically and within contemporary culture-specific contexts. Exploration of psychological functions served by rituals of healing and massage and role of healing rituals practiced by women and men in times of instability and caretaking in healing troubled communities. Concurrently scheduled with course CM240. P/NP or letter grading.

C141. Carnival and Nationality. (4) Lecture, three hours; fieldwork, one hour. Study of traditional calendrical, religious, and local festivals and related events in their cultural and historical contexts, with emphasis on American festival occasions and their Old World antecedents. Topics include carnivale and carnival-esque and politics of celebration. Concurrently scheduled with course C241. P/NP or letter grading.

C142. Myth and Ritual. (4) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Myths as means of world making, as purgative forces, and as a means for understanding human purposes, and places. Rituals embody and activate myths through dramatic transformative devices. Concurrently scheduled with course C242. 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 epidemic. 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 Brazil. Collaborative theory-in-practice projects. P/NP or letter grading.


C146. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for juniors/seniors. Opportunity to reflect on artists and intellectuals as cultural workers operating in domains of ideology, aesthetics, and theory. Analysis of such key words as ideology, aesthetics, theory, art, politics, intervention, intellectuals, and artists. Concurrently scheduled with course C246. P/NP or letter grading.

C150. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of major tropes and rhetorical strategies to explicitly localise ethnographic theory and practice, and to situate contemporary cross-cultural understanding. Examination of categorical notions of insider and outsider while also developing various perspectives on performed acts of identity formation. Concurrently scheduled with course C250. P/NP or letter grading.

C151. Ethnography of Religions. (4) Lecture, three hours. Religions are cultural systems helping people to cope with misfortune, deal with death, and find fulfillment in daily life. Case studies across cultures as cosmologies define moral being in world, divination determines causes of difficulty, spirit mediumship embodies divine intervention, and sacred and secular deities interact. Nonjudgmental comparative investigation stressng conversation. Concurrently scheduled with course C251. P/NP or letter grading.
Arts activist projects organized by seminar members. Particular activist project, with focus on ongoing activism. Consideration of particular projects. Readings include theoretical texts and curricular materials. Historicizing and theorizing of arts activism to choreography, performance, cultural studies, production, and editorial decisions. Concurrently scheduled with course C252. P/NP or letter grading.

159. Art and Global Health. (4) Seminar, three hours. Exploration of interface of arts and health-based methodologies in pursuit of improved health outcomes, using examples from international projects created and supported by UCLA Art and Global Health Center. Arts activist projects organized by seminar members supported and encouraged. 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 nonjudgmental pro-sex approaches have been utilized to open empowering and educational dialogues about sexual health by and for diverse range of communities. Intensive training in sex, sexuality, HIV/AIDS, and powerful history of interventions to open urgent dialogues on these taboo topics. May be repeated for maximum of 12 units. P/NP or letter grading.

164. 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 reflect power differential between art makers and commentators. Concurrently scheduled with course C264. P/NP or letter grading.

CM168. Beyond Academia: Making Art in Real Worlds. (4) Seminar (and C168). Lecture, three hours; studio, one hour; outside study, eight hours. Designed for seniors/juniors. 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 CM268. P/NP or letter grading.

C173. Sound Resources for Performance. (4) Lecture, three hours; studio, one hour; outside study, eight hours. Designed for juniors/seniors. Exploration of music, in search of interesting, new, and unusual. Investigation of musical possibilities via record store. Interpreting and improvising to open empowering and educational dialogues about sexual health by and for diverse range of communities. Intensive training in sex, sexuality, HIV/AIDS, and powerful history of interventions to open urgent dialogues on these taboo topics. May be repeated for maximum of 12 units. 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 organizations and institutions. Reflection on impact of service on communities and theories. May be repeated once for credit. P/NP or letter grading.

178. Advanced Private Instruction in World Arts and Cultures. (4) Studio, three to 12 hours. Enforced requisite: three courses. Designed for seniors/juniors. Private or semiprivate instruction in one world arts practice with distinguished community-based artist to be arranged by students and approved by instructor. May be repeated for maximum of 24 units. P/NP grading.

180. Variable Topics in Video Production/Practice. (4) Lecture, two hours; laboratory, two hours. Enforced requisite: course 80. Training in low-budget and independent video and documentary practice as research tool. Visual ethnography combined with experimental film. 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 analyze and critically assess forms of visual documentation. Skills include cinematography, sound recording, interviews, and digital editing. May be repeated once for credit. Concurrently scheduled with course C280. 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 visual study of culture, community, and arts. P/NP or letter grading.


185. Junior-Year Proposal. (1) Lecture, 90 minutes; outside study, 90 minutes. Limited to World Arts and Cultures majors. Planning and execution of proposal (either senior focus or senior honors project) for senior-year study, with attention to exploring resources of department and University as whole. May be repeated once for credit. P/NP or letter grading.

186A-186B. Senior Honors Projects in World Arts and Cultures. (5-6) Lecture, four hours; outside study, 11 hours. Enforced 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 critical, comparative, ethnographic, and documentary approaches. Lecture/seminar format with World Arts and Cultures faculty during first term; faculty-directed presentations of individual projects during second term; and faculty-directed presentation of theses. P/NP or letter grading.

187. Indigenous Film. (5) Same as American Indian Studies M187.) Lecture, four hours; discussion. Enforced requisite: one hour. Introduction to study of indigenous filmic images and representations, with focus on selected ethnographic and experimental selected, and feature films ranging from 1920 to present. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjacent 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 billed toward honors for eligible students. Honors content noted on transcript. P/NP or letter grading.

195. Community or Corporate Internships in World Arts and Cultures. (2 to 4) Tutorial, six hours. Internship in prescribed service agencies or business. Students meet on regular basis with instructor and provide periodic reports of their experiences. May be repeated for credit. P/NP or letter grading.

199. Directed Research in World Arts and Cultures. (2 to 4) 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. Culumnizing paper or project required. May be repeated for maximum of 8 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 in art in arts and social sciences. Analysis of contemporary debates concerning ownership and use of word “culture” and critical elucidation of study of culture. S/U or letter grading.

201. Theories of Performance. (4) Seminar, three hours; outside study, nine hours. Close reading and analysis of classic and contemporary studies of performance and related aesthetic practices. Familiarization with ways in which “performance” is defined and deployed by scholars working in disciplines of anthropology, dance, folklore, linguistics, literature, musicology, performance studies, philosophy, sociology, and theater. S/U or letter grading.

202. Research Methodologies. (4) Seminar, three hours; outside study, nine hours. Hands-on course designed to help students develop understanding of many developed qualitative research methods and 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, eth- nicity, and class identities), and analysis of dance and other somatic modes of performance. S/U or letter grading.

207. Ethnography of Performance. (4) Seminar, three hours; outside study, nine hours. Survey of methods and methodological issues in ethnographic study of performance in cultural context. Field documentation, participation in historical 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 the process important to study of postcolonial cultural perspectives bear on anthropological and historical studies of indigenes. Regions include southwest Co-
C229. Food Customs and Symbolism. (4) Lecture, three hours. Designed for graduate students. Introduction to foodways, with particular attention to customs and symbolism in America. Topics include the history of American foods, food and identity, food and its symbolic meanings, aversions and taboos, advertising, change in food habits, and American identity. Concurrently scheduled with course C129. S/U or letter grading.

CM230. Space and Place. (Same as Architecture and Urban Design CM230.) Lecture, three hours. Survey of places from post-modern to cultural or comparative perspective and with performance emphasis, with focus on mutual interaction of human beings and their created environments. Emphasis on historical, anonymous, 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 CM230. 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 cultures of performance and material culture and development of ability to focus on them and learn to conduct research on them. Examination of wide range of American Indian art and craft traditions within fullest possible range of such contexts, with performance giving definitive form. 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 in sound, speech, word, silence, and even dreams and visions. Concurrently scheduled with course C138. S/U or letter grading.


CM240. Healing, Ritual, and Transformation. (Same as Gender Studies CM243.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Examination of role of healing, historical and within contemporary culture-specific contexts. Exploration of psychological functions served by rites of passage and healing rituals and of role of arts in healing communities. Concurrently scheduled with course CM140. S/U or letter grading.

C241. Carnival and Festivity. (4) Lecture, three hours; fieldwork, one hour. Study of traditional calendrical, religious, and local festivals and related events in their cultural and historical contexts, with emphasis on American festival occasions 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 theory. Analysis of such key works as performance art, concepts, politics, intervention, intellectuals, and artists. Concurrently scheduled with course C146. S/U or letter grading.

C250. Critical Ethnographies. (8) Lecture, three hours. Enforced requisite: course 20 or 35. Survey of ethnographic method as key component of cross-cultural understanding. Examination of categorical 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 liberation. 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 one particular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health Center. Art activist projects of seminar members supported and encouraged. 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-based 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 development of ability to focus on them and learn to conduct research on them. Examination of role of arts activist projects organized by seminar members and supported by UCLA Art and Global Health Center. Concurrently scheduled with course C164. S/U or letter grading.

C268. Beyond Academia: Making Art in Real World. (Formerly numbered C268.) (Same as Dance CM268.) Lecture, four hours; outside study, eight hours. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as public visibility and grant-writing. 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; patterns; body movements (walking, singing); and hardware store (found sound). Participants 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/Pract. (4) Lecture, two hours; laboratory, two hours. Enforced requisite: course 80. Training in low-budget and independent documentary and short feature videography as research tool. Visual ethnography combined with experimental 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: apprentice per- sonal and professional development as teaching assistant, fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Directed Professional Activities. (2 to 8) Lecture, to be arranged. Directed projects in professional editing, bibliography, filmography, videography, conference and festival direction, and other professional activities. May not be applied toward MA degree requirements. May be repeated. S/U grading.

451. Teaching Assistant Seminar. (2) Seminar, one hour; laboratory, three hours. Required of all World Arts and Cultures Department teaching assistants. Lectures, discussion, readings, and practice teaching. May be repeated once for credit. S/U grading.

478. Advanced Private Instruction in World Arts and Cultures. (2 to 8) Studio, three to 12 hours; outside study, three to 12 hours. Private or semiprivate instruction with distinguished community-based artist to be arranged by students and approved by instructor. May be repeated for maximum of 24 units. S/ U grading.

480. Seminar: Research Topics. (2 to 4) Seminar, three hours; outside study, three to nine hours. Forum in which faculty, students, and visitors make presentations and obtain feedback on their work. May be repeated. S/U grading.
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 an equivalent 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) (Formerly numbered 32.) Lecture, four hours. Emphasis on speaking fluency in English by examining rules of conversation, participating actively in class discussions, making group presentations, and completing out-of-class assignments designed to promote interaction with native speakers and familiarize international students with UCLA campus and local community. Offered in summer only. P/NP or letter grading.

21. Pronunciation. (4) Lecture, four hours. Designed to improve clarity, accuracy, and understanding of spoken English through study and practice of pronunciation features as they occur in real speech, using models from television, movies, and online talks. Emphasis on individualized feedback through audio-recording and videorecording technology. Offered in summer only. P/NP or letter grading.

22. Public Speaking. (4) Lecture, four hours. Emphasis on making presentations, interacting with audience members, and leading group discussions. 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 suitable undergraduate or graduate programs, interview advisers at local universities, and learn to write effective personal statements. Additional focus on academic reading, vocabulary, and speaking skills. Offered in summer only, P/NP or letter grading.

25. Academic Reading and Writing. (4) Lecture, four hours. Designed to improve reading speed, comprehension, and knowledge of academic writing conventions. Emphasis on synthesizing information from sources, providing personal interpretations, 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-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 selective language structures through their occurrence within contemporary cultural and societal topics within the English language learning environment. Focus on understanding and applying these structures to improve fluency while enhancing critical thinking skills. May be repeated for credit with topic change. P/NP (undergraduates), S/U (graduates), or letter grading.

29. Workshop in Disciplinary Writing for Multilingual Students. (4) Lecture, four hours. Instruction on 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.

30. Pronunciation for Multilingual Students. (4) Formerly numbered 38B.) Lecture, four hours. Emphasis on accurate articulation of sounds, word stress, rhythm, linking, and other features of fluent spoken English, using video-recorded models and online pronunciation resources. Individualized feedback provided through frequent recording assignments. P/NP or letter grading.

31. Public Speaking for Multilingual Students. (4) Formerly numbered 34.) 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.


33. Workshop in Academic Writing for Multilingual Graduate Students. (4) Lecture, four hours. Instruction in and practice of academic writing skills using authentic university texts. Focus on improving writing rate and comprehension, expanding academic vocabulary, and developing critical reading skills. P/NP or letter grading.

34. Literature and Language for Multilingual Students. (4) Lecture, four hours. Emphasis on English as a Second Language requirement. Writing of texts that are rhetorically appropriate for discipline-specific audiences. Extensive revising of papers to allow writers to edit their texts for grammatical appropriateness and for clear and coherent style. Focus on language and writing issues of concern to multilingual writers. P/NP or letter grading.

35. 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.

36. Language and Language for Multilingual Students. (4) Lecture, four hours. Emphasis on English as a Second Language requirement. Introduction to effective reading and analyzing variety of literature written in English. Review of literary techniques and terms to deepen understanding of poetry, short stories, and novels. Focus on author styles and grammatical and vocabulary choices. P/NP or letter grading.

37. Advanced 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. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

38. 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 to 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.

39. Variable Topics in English as a Second Language. (2) Lecture, two hours. Enforced requisite: course 33B or proficiency demonstrated on English as a Second Language Placement Exam. Emphasis on oral fluency. May be repeated for credit with topic change. P/NP (undergraduates), S/U (graduates), or letter grading.

40. 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

103. Pronunciation for Multilingual Students. (4) Formerly numbered 38B.) Lecture, four hours. Emphasis on accurate articulation of sounds, word stress, rhythm, linking, and other features of fluent spoken English, using video-recorded models and online pronunciation resources. Individualized feedback provided through frequent recording assignments. P/NP or letter grading.

104. Public Speaking for Multilingual Students. (4) Formerly numbered 34.) Lecture, four hours. Emphasis on making presentations in academic and professional settings, interacting with audience members, leading group discussions, and preparing for job interviews. Videorecording of student performances to allow students to improve through self and peer evaluation, as well as through individualized instructor feedback. P/NP or letter grading.


106. Workshop in Disciplinary Writing for Multilingual Students. (4) Lecture, four hours. Emphasis on reading and comprehension, expanding academic vocabulary, and developing critical reading skills. P/NP or letter grading.

107. Academic Reading and Vocabulary for Multilingual Students. (4) Lecture, four hours. Emphasis on improving reading rate and comprehension, expanding academic vocabulary, and developing critical reading skills. P/NP or letter grading.


109. Advanced 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. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

110. 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 to 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.

111. Variable Topics in English as a Second Language. (2) Lecture, two hours. Enforced requisite: course 33B or proficiency demonstrated on English as a Second Language Placement Exam. Emphasis on oral fluency. May be repeated for credit with topic change. P/NP (undergraduates), S/U (graduates), or letter grading.

112. 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

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 Exam. Development of academic writing, reading, and listening skills with focus on reading comprehension, vocabulary development, and analysis of discipline-specific research articles, with additional work on fundamental composition techniques, grammar, and editing. S/U or letter grading.

301. High-Intermediate Writing and Communication for International Graduate Students. (4) Formerly numbered 201.) Lecture, five hours. Enforced requisite: course 300 or proficiency demonstrated on English as a Second Language Placement Exam. 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. Enforced requisite: course 301 or proficiency demonstrated on English as a Second Language Placement Exam. Writing and revision of papers for academic work or publication in student field of study. Emphasis on rhetorical strategies as well as stylistic and organizational conventions for preparing research papers and arguments in disciplines including humanities, social sciences, and pure and applied sciences. Focus on grammar structures and vocabulary that contribute to clear and coherent writing style. S/U or letter grading.

310. Pronunciation for International Teaching Assistants. (4) Formerly numbered 210.) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on accurate articulation of sounds, word stress, linking, and other features of fluent spoken English, using authentic models of classroom language. Additional emphasis on comprehending typical undergraduate speech. Frequent audiorecordings and videorecordings provide opportunity for self-review and individualized instruction. S/U or letter grading.

311. Classroom Communication for International Teaching Assistants I. (4) Formerly numbered 211.) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on accurate articulation of sounds, word stress, linking, and other features of fluent spoken English, using authentic models of classroom language. Additional emphasis on comprehending typical undergraduate speech. Frequent audiorecordings and videorecordings provide opportunity for self-review and individualized instruction. S/U or letter grading.

312. Classroom Communication for International Teaching Assistants II. (4) Formerly numbered 212.) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Course 311 is not requisite to 312. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, evenings’ own foci, handling questions and answering academic questions in office hours. Microteaching performances videorecorded for self, peer, and instructor evaluation. S/U or letter grading.

313. Classroom Communication for International Teaching Assistants III. (4) Formerly numbered 213.) Lecture, five hours. Specialized topics in English as a Second Language Placement Exam. Emphasis on oral fluency. May be repeated for credit with topic change. P/NP (undergraduates), S/U (graduates), or letter grading.

314. Plan for International Graduate Students. (4) Formerly numbered 214.) Lecture, five hours. Specialized topics in English as a Second Language Placement Exam. Emphasis on oral fluency. May be repeated for credit with topic change. P/NP (undergraduates), S/U (graduates), or letter grading.
English Composition

Lower-Division Courses

1. Introduction to University Discourse. (4) Formerly numbered A. Lecture, four hours. Enforced 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, and fundamental academic composition techniques, with additional work on grammar and editing. Letter grading.

2. Intermediate Composition for Multilingual Students. (4) Formerly numbered English as a Second Language 33B.) 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). Development of academic writing skills with focus on reading, writing, and rhetorical skills. Emphasis on revision, developing syntactic variety and academic vocabulary, and editing for grammar and style. Completion of course with grade of C or better is requisite to course 2. Letter grading.

3. High-Intermediate Composition for Multilingual Students. (4) Formerly numbered English as a Second Language 33C.) 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) (enforced) or course 1A (C or better). Development of academic writing skills with focus on synthesis of sources, strategies of argumentation, rhetoric, and vocabulary. Emphasis on revision, additional work on grammar and editing. Letter grading.

4. Advanced Composition for Multilingual Transfer Students. (5) Formerly numbered English as a Second Language 35.) Lecture, four hours. Enforced requisite: proficiency demonstrated on Analytical Writing Placement Examination (enforced) or course A (C or better). Second course in university-level discourse. Enforced requisite: proficiency demonstrated on Analytical Writing Placement Examination (transfer students). Development of academic writing skills with focus on reading, writing, and rhetorical skills. Emphasis on revision, developing syntactic variety and academic vocabulary, and editing for grammar and style. Letter grading.

5. Approaches to University Writing. (5) Lecture, four hours. Enforced requisite: proficiency demonstrated on Analytical Writing Placement Examination (enforced) or course A (C or better). Second course in university-level discourse, with analysis and critique of university-level texts. Emphasis on revision for argumentative coherence and effective style. Completion of course with grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

6. Approaches to University Writing for Multilingual Students. (5) Lecture, six hours. Enforced requisite: proficiency demonstrated on Analytical Writing Placement Examination (enforced) or course 1B (C or better). Second course in university-level discourse, with analysis and critique of university-level texts. Emphasis on strategies for developing coherent and well-argued pieces of academic writing and for achieving effective and clear style in academic prose. Completion of course with grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

7. English Composition, Rhetoric, and Language. (5) Lecture, three hours. Enforced requisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better), skillful argument, with focus on diversity and inclusiveness. Analysis of varieties of academic texts 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.

8. English Composition, Rhetoric, and Language (Service Learning). (5) Lecture, three hours; fieldwork, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Investigation of diversity and difference, through writing and rhetoric. Critical examination of the multiple institutions and identities that promote asymmetrical power relations as well as responses of diverse groups to these inequalities. Original argumentation that engages with difference and responds to complexities of diverse societies. Service-learning adds to understanding of diversity by offering firsthand inter- actions with diverse communities students are learning about. Completion of 20 hours of on-site service learning adds to understanding 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.

9. English Composition, Rhetoric, and Language for Engineers. (5) Lecture, three hours. Enforced requisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Rhetorical techniques and skillful argument. Analysis of varieties of academic prose and writing of minimum of 20 pages of revised service. Service learning component includes meaningful work of off-campus agencies with instruction. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

10. Literature, Culture, and Critical Inquiry. (5) Lecture, four hours; fieldwork, two hours. Enforced requisite: course 3 or 3H (C or better). Introduction to basic concepts in English grammar and survey of development of English grammar and survey of development of modern grammars. Introduction to basic concepts in English grammar and survey of development of modern grammars. Introduction to basic concepts in English grammar and survey of development of modern grammars. Introduction to basic concepts in English grammar and survey of development of modern grammars. "Understanding of diversity by offering firsthand interactions with diverse communities students are learning about." Completion of 20 hours of on-site service learning adds to understanding 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.

11. Writing Workshop. (2) Lecture, five hours. Designed for any students who have not yet enrolled in any UC campus who have not completed their first year of college coursework. Intended to demand of university writing and often unstated conventions that govern it. Addresses not only specific writing tasks such as timed examinations, effective e-mails, and college papers, but also broad communication concerns such as classroom participation and oral presentations. P/NP grading.

12. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Directed writing seminar. 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.

13. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Developed in direct collaboration with 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 contract required. Honors content noted on transcript. Letter grading.

14. 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

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 comprehensive writing such as argument, research paper, and/or critical essay. Satisfies Writing II requirement. Letter grading.

110. Writing Adjunct. (4) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing requirement, course 3 or 3H. Students are enrolled in course offered in conjunction with course 110 (consult Schedule of Classes for courses so designated). Writing assignments use materials from adjudged 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: satisfactory fulfillment of Entry-Level Writing and English Composition requirements. Survey of topics in English linguistics of particular interest to elementary school teachers. Subjects include approaches to English language acquisition and development; language attitudes; regional and social dialects of American English; bilingual schooling; contribution of English language study to teaching of reading, writing, spelling, and literature. P/NP or letter grading.

120B. Language Study for Teachers of English: Secondary School. (4) Lecture, four hours. Requisite: satisfactory fulfillment of Entry-Level Writing and English Composition requirements. Survey of topics in English grammar and survey of development of modern grammars. Introduction to basic concepts in English grammar and survey of development of modern grammars. Introduction to basic concepts in English grammar and survey of development of modern grammars. Introduction to basic concepts in English grammar and survey of development of modern grammars. "Understanding of diversity by offering firsthand interactions with diverse communities students are learning about." Completion of 20 hours of on-site service learning adds to understanding 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.
123. Information Literacy and Research Skills. (1) Lecture, one hour. Preparation: satisfaction of Writing I requirement. Designed to help students become information literate, so they know how to identify, locate, critically 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 each) Lecture, four hours. Designed for juniors/seniors. Advanced study of writing conventions in specific disciplinary areas, with focus on analysis and development of expertise in common discourse 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, Language; 129C, Physical and Life Sciences; 129D, Fine Arts.


131A-131C-131D. Specialized Writing. (4-4-4) Lecture, four hours. Preparation: 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 a variety of writing tasks, including different sections that emphasize rhetorical values of major professions and research areas. Each course may be taken independently for credit. P/NP or letter grading.

131A. English and Social Policy. (5) Lecture, four hours. Preparation: 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 a variety of writing tasks, including different sections that emphasize rhetorical values of major professions and research areas. Each course may be taken independently for credit. P/NP or letter grading.

131B. Specialized Writing: Business and Social Policy. (5) Lecture, four hours. Preparation: 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 a variety of writing tasks, including different sections that emphasize rhetorical values of major professions and research areas. Each course may be taken independently for credit. P/NP or letter grading.

131C. Medicine and Public Health. (5) Lecture, four hours. Preparation: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Specialized writing course designed to help students develop stylistic, formal, and argumentative sophistication in a variety of writing tasks, including different sections that emphasize rhetorical values of major professions and research areas. Each course may be taken independently for credit. P/NP or letter grading.

131D. Media and Communications. (5) Lecture, four hours. Preparation: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Specialized writing course designed to help students develop stylistic, formal, and argumentative sophistication in a variety of writing tasks, including different sections that emphasize rhetorical values of major professions and research areas. Each course may be taken independently for credit. P/NP or letter grading.

132A-132D. Topics in Rhetoric and Writing. (4 each) Lecture, four hours. Preparation: discussion, one hour. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Topics in rhetoric and writing. English majors who wish to use course to satisfy English Composition requirement must take it for letter grade. 132A, Gender and Writing; 132B, Autobiographical Writing; 132C, Cultural Studies; 132D, Variables Topics. 136A-136B-136C. Practical Writing and Editing. (4-4-4) Lecture, three hours; Preparation: one course from 131 series. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Sequence in practical writing and editing alphabetically designated to suit students' careers. Analysis of prose and literary styles necessary to variety of writing in professional, nonacademic fields combined whenever possible with practical experience in variety of writing and editing contexts under the editorial skills. In Progress (136A) and P/NP or letter (136B, 136C) grading.

138. Topics in Creative Writing. (5) Same as English 138. Seminar, three hours. Requisite: English Composition 3 or 3D or 3LS. Introductory workshop in genre(s) of instructor choice, that may include mixed genres, playwriting, screenwriting, literary fiction, 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.

141. Current Methods of Language Teaching. (5) Same as Linguistics 141. 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 and in rational base for design, development, implementation, and evaluation of second language instruction programs. P/NP or letter grading.

157. Apprenticeship in Composition Tutoring. (2) Seminar, two hours. Enforced requisite: satisfaction of Writing II requirement. Composition Peer Learning Facilities (PLFs) who work in Undergraduate Writing Center provided with ongoing mentoring in composition and peer learning methodologies. Overview of language, writing, and literacy needs of diverse college populations. Includes writing, multi-lingual writers, and non-native English-speaking (NNS) writers. Provides opportunity to reflect critically on theoretical and practical frameworks for tutoring to which students have exposure. PLFs receive guidance in the tutoring their process observations by course instructor and their peers. May be repeated for credit with consent of instructor. P/NP grading.

180. Advanced Research Writing. (5) Lecture, three hours; laboratory, four hours. Preparation: writing in English M138.) Seminar, three hours. Enforced requisite: Research Writing II requirement. Composition Peer Learning Facilities (PLFs) who work in Undergraduate Writing Center provided with ongoing mentoring in composition and peer learning methodologies. Overview of language, writing, and literacy needs of diverse college populations. Includes writing, multi-lingual writers, and non-native English-speaking (NNS) writers. Provides opportunity to reflect critically on theoretical and practical frameworks for tutoring to which students have exposure. PLFs receive guidance in the tutoring their process observations by course instructor and their peers. May be repeated for credit with consent of instructor. P/NP 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. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

192. Undergraduate Practicum in English: Journals. (2) Same as English M192 and Environment 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 Sustainability, and/or Writing Programs. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in English. (1) Seminar, four hours. Preparation: Requisites: course 3 or 3H, satisfaction of Writing II requirement. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Includes work with the 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.

199. Directed Research or Senior Project in English Composition. (2 to 4) Tutorial, to be arranged. Requisite: course 3 or 3H. 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

300. Teaching English. (4) Lecture, four hours. Requisite: English Composition course 2 or 2H. Seminar, four hours. Preparation: satisfactory completion of at least one college-level writing class. In-depth study of writing pedagogy. Focus on writing teaching pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching ESL courses. S/U grading.

401. Current Issues in University Writing Pedagogy. (4) Formerly numbered 494.) Seminar, three hours. Limited to graduate students. Exploration of literature and theories of postsecondary writing pedagogy that may include focus on changing institutional role of writing instruction, multimodal composition, and linguistic/educational diversity. Letter grading.

402. Writing Pedagogy across Disciplines: Genre and Discourse. (4) Seminar, three hours. Limited to graduate students. Survey of disciplinary writing across curriculum. Examination of writing conventions, genres, and styles in graduate student academic disciplines, with focus on evolving academic discourse in emerging and hybrid areas of inquiry. Development of best practices for adapting writing pedagogy to changes in disciplinary academic discourse, with discussion of challenges for multilingual learners. Letter grading.

403. Language Pedagogy: Form, Meaning, and Function. (4) Seminar, three hours. Limited to graduate students. Preparation: survey of theories and applications of language structures and conventions, with insights from discourse analysis and functional grammar. Designed to develop instructor ability to explain structures and to articulate language-based issues of meaning. Integration of theoretical and applications of knowledge for improved language-realted instruction and feedback in composition studies. Letter grading.

404. Diversity and Student-Centered Pedagogy. (4) Seminar, three hours. Limited to graduate students. Examination of language in heterogeneous classrooms, with focus on diversity of race, socioeconomic status, geographic background, linguistic skills, and academic preparedness. Development of teaching practices for accommodating diverse student populations and building active inclusive curriculum and classroom environments at university level. S/U or letter grading.

495A. Teaching Preparation Seminar: Second Language Learners. (4) Formerly numbered 495G.) Seminar, three hours. Limited to graduate students. Preparation: of all English as a second language (ESL) teaching assistants and open to students seeking Graduate Certificate in Writing Pedagogy. Focus on pedagogical issues specifically related to academic reading and composition skills for second language learners, including course design, assessment of student writing, conferencing, and specialized problems that may occur in teaching ESL courses. S/U grading.

495B. Supervised Teaching of Second Language Learners. (4) Seminar, two hours. Enforced requisite: course 495A. Required of all English as a second language (ESL) teaching assistants and open to students seeking Graduate Certificate in Writing Pedagogy. Focus on pedagogical issues specifically related to academic reading and composition skills for second language learners, including course design, assessment of student writing, conferencing, and specialized problems that may occur in teaching ESL courses. S/U grading.

495C. Teaching Preparation Seminar: First-Year Composition. (4) Formerly numbered 495B.) Seminar, three hours. Limited to graduate students. Preparation: of all English as a second language (ESL) teaching assistants each term they are assigned to teach ESL courses. Focus on composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching ESL courses. S/U grading.

495D. Teaching Preparation Seminar: Writing for Traditional Students. (4) Seminar, two hours. Limited to graduate students. Preparation: of all English as a second language (ESL) teaching assistants each term they are assigned to teach ESL courses. Focus on composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching ESL courses. S/U grading.
495D. Supervised Teaching of First-Year Composition. (2) (Formerly numbered 495C.) Seminar, two hours. Enforced requisite: course 495C. Required of all teaching assistants who are assigned to English Composition 3 courses. Focus on composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching English Composition 3. May be repeated for credit. S/U grading.

495E. Teaching Preparation Seminar: Writing in Disciplines. (2) (Formerly numbered 495A.) Seminar, three hours every other week. Limited to graduate students. Required of all teaching assistants for Writing II courses not exempt by appropriate departmental or program training and open to students seeking Graduate Certificate in Writing Pedagogy. Training focused on composition 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.

495F. Supervised Teaching of Writing in Disciplines. (2) (Formerly numbered 495D.) Seminar, two hours. Enforced requisite: course 495E. Required of all teaching assistants for Writing II courses not exempt by appropriate departmental or program training. Mentoring conferences and teaching observations, with focus on student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in disciplinary contexts. Practical concerns of creating assignments, marking and grading essays, and conducting peer reviews and conferences. May be repeated for credit. S/U grading.

495G. Teaching Preparation Seminar: Writing for Engineers. (4) (Formerly numbered M495E.) (Same as Engineering M495L) Seminar, two and one half hours. Limited to graduate students. Required of all teaching assistants for Engineering writing courses not exempt by appropriate departmental or program training. Training and mentoring, with focus on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in engineering writing contexts. Practical concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

495J. Supervised Teaching of Writing for Engineers. (2) (Formerly numbered M495F) (Same as Engineering M495J) Seminar, one hour. Enforced requisite: course M495L. 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 concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

495K. Teaching Preparation Seminar: Teaching and Writing Pedagogies for Electrical Engineers. (2) (Same as Electrical and Computer Engineering M495K) Seminar, two hours. Limited to graduate electrical engineering students. Required of all departmental teaching assistants (TAs). May be taken concurrently while holding a TA appointment. Seminar on pedagogy and logistics of being a TA with emphasis on student-centered teaching, clear communication, and multimodal teaching and learning. S/U grading.

495L. Teaching Preparation Seminar: Writing for Engineers. (4) (Formerly numbered M495E.) (Same as Engineering M495L) Seminar, two and one half hours. Limited to graduate students. Required of all teaching assistants in their first quarter with Clusters. Training focused on student-centered pedagogy, reflective teaching, composition pedagogy, assessment of student writing, guidance of revision process, and specialized teaching issues that may occur in Clusters context. 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 Clusters teaching assistants in quarter prior to their first Clusters seminar and open to students seeking Graduate Certificate in Writing Pedagogy. Training focused on developing writing-intensive seminar with emphasis on identifying course objectives, choosing appropriate readings, sequencing and scaffolding curriculum, drafting integrated assignments, and foregrounding writing in discipline-specific context. Production of syllabus for seminar that satisfies Writing II requirement. S/U grading.

495N. Teaching Preparation: Writing-Intensive Seminar Development. (2) Seminar, two hours. Limited to graduate students. Required of all Clusters teaching assistants in quarter prior to their first Clusters seminar and open to students seeking Graduate Certificate in Writing Pedagogy. Training focused on developing writing-intensive seminar with emphasis on identifying course objectives, choosing appropriate readings, sequencing and scaffolding curriculum, drafting integrated assignments, and foregrounding writing in discipline-specific context. Production of syllabus for seminar that satisfies Writing II requirement. S/U grading.

495O. Supervised Teaching of Clusters Seminar. (2) Seminar, two hours. Requisite: course 495N. Required of all Clusters teaching assistants teaching their first Clusters seminar. Mentoring conferences and teaching observations, with focus on student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in Clusters contexts. Practical concerns of creating assignments, responding to and grading essays, and conducting peer reviews and conferences. May be repeated for credit. S/U grading.
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 pur-
suing alternative academic careers. Speaker sessions
and panels to be followed by workshops. Revision of
application letter, CV, teaching portfolio, or other rele-
vant 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 (including 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 grounds 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 230.2, 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 310-825-3871. 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 Coordinator, 2241 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 re-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 fi-
nal 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 course, without the informed permission/consent of the instructor of the second course; or the submission by a student of any work submitted for credit in identical or similar form in one course to fulfill the requirements of a concurrent course, without the permission/consent of the instructors of both courses.

102.01e: Facilitating Academic Dishonesty. Facilitating academic dishonesty includes, but is not limited to, knowingly helping another student commit an act of academic dishonesty.

102.01f: Coercion Regarding Grading or Evaluation of Coursework. Threatening personal or professional repercussions or discipline against an instructor to coerce the instructor to change a grade or otherwise evaluate the student's work by criteria not directly reflective of coursework.

102.01g: Unauthorized Collaboration. Unauthorized collaboration means working with others without the expressed permission of the instructor on any submission, whether in draft or final form, to meet course requirements (including a paper, project, take-home examination, computer program, oral presentation, or other work). Collaboration between students will be considered unauthorized unless expressly part of the assignment in question, or expressly permitted by the instructor.

102.02: Other Forms of Dishonesty. Other forms of dishonesty, including but not limited to fabricating information or knowingly furnishing false information or reporting a false emergency to the University.

102.03: Forgery. Forgery, alteration, or misuse of any University document, record, key, electronic device, or identification, or submission of any forged document or record to the University.

102.04: Theft, Damage, or Destruction of Property.

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 Policies or 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 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.

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 preinitialization into a campus organization or other activity engaged in by the organization or members of the organization at any time that causes, or is likely to cause, physical injury or personal degradation or disgrace resulting in psychological harm to any student or other person.

102.13: Obstruction or Disruption. Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other University activities.

102.14: Disorderly Behavior. Engaging in disorderly or lewd conduct.

102.15: Disturbing the Peace. Participation in a disturbance of the peace or unlawful assembly.
102.16: Failure to Comply. Failure to identify oneself to, or comply with directions of, a University official or other public official acting in the performance of her or his duties while on University property or at official University functions, or resisting or obstructing such University or other public officials in the performance of or the attempt to perform their duties.

102.17: Controlled Substances. Manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of controlled substances (including medicinal marijuana), identified in federal and state laws or regulations, which is unlawful or otherwise prohibited by, or not in compliance with, any University policy or campus regulations or being unable to exercise care for one’s own safety because one is under the influence of controlled substances. NOTE: This provision shall not apply to circumstances wherein the person under the influence was given a controlled substance without her or his knowledge and permission.

102.18: Alcohol. Manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of alcohol which is unlawful or otherwise prohibited by, or not in compliance with, University policy or campus regulations, or being unable to exercise care for one’s own safety because one is under the influence of alcohol. NOTE: This provision shall not apply to circumstances wherein the person under the influence was given alcohol without her or his 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. Except as expressly permitted by law, possession, use, storage, or manufacture of a firearm or other weapon capable of causing bodily injury is prohibited.

102.20a: 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. Terrorizing 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, of 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, nor to lawful official law or policy enforcement activities. These provisions may not be utilized to impinge on the lawful exercise of constitutionally protected rights of freedom of speech or assembly.

Sexual Assault and Other Sexual Violence

UCLA does not tolerate sexual violence and responds to all reports of sexual violence in accordance with UCLA procedures and the UC Policy on Sexual Violence and Sexual Harassment. Sanctions for a student found re-
sponsible 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. The Title IX Office may be able to help through interim measures so individuals do not experience harassment or sexual violence. Those measures can include, for example, a no contact directive prohibiting contact.

Utilize confidential campus and community support services:
1. Contact a Campus Assault Resources and Education (CARE) advocate. CARE Advocates are available to support and advocate for UCLA victims or survivors. They can discuss options and alternatives, help identify the most appropriate support services, and provide information about medical care, psychological counseling, academic assistance, legal options, how to file a police report, and how to file a complaint with the Title IX Office. CARE advocates are available to assist any member of the UCLA community regardless of where or when the assault occurred. For assistance, contact CARE at 310-206-2465 or go to Wooden Center West first floor and ask to speak to a CARE advocate.
2. Contact the Rape Treatment Center at Santa Monica-UCLA Medical Center (424-224-7208) for free emergency medical treatment and counseling services. Caring assistance is available for persons who have been subjected to sexual violence. They are encouraged in the strongest terms to make a report to the Title IX Office.

Harassment
Sexual Harassment
The University of California is committed to creating and maintaining a community where all persons who participate in University programs and activities can work and learn together in an atmosphere free from all forms of harassment, exploitation, or intimidation. Every member of the University community should be aware that the University is strongly opposed to sexual harassment and that such behavior is prohibited both by law and by the UC Policy on Sexual Violence and Sexual Harassment (hereafter referred to as the SVSH Policy). The University will respond promptly and effectively to reports of sexual harassment and will take appropriate action to prevent, correct and, if necessary, discipline behavior that violates the SVSH Policy. See the Title IX sexual harassment prevention website.

Definitions
For detailed definitions of sexual harassment, refer to the SVSH Policy.

Complaint Resolution
An individual who believes that they have been sexually harassed may contact the Title IX Coordinator, 2241 Murphy Hall, 310-206-3417. If a student reports sexual harassment or sexual violence to a responsible employee, as defined under the SVSH Policy, the responsible employee must report it to the Title IX Coordinator. Responsible employees include student personnel, faculty members, and most other employees who are not defined as a confidential resource under the SVSH Policy.

Title IX prohibits sex discrimination, including sexual harassment and sexual violence, in any education program or activity receiving federal financial assistance. Inquiries regarding Title IX may be directed to the Title IX Coordinator, 2241 Murphy Hall, 310-206-3417, or the U.S. Department of Education Office for Civil Rights.

Other Forms of Harassment
The University strives to create an environment that fosters the values of mutual respect and tolerance and is free from discrimination based on race, ethnicity, sex, religion, sexual orientation, disability, age, and other personal characteristics. Certainly harassment, in its many forms, works against those values and often corrodes a person’s sense of worth and interferes with one’s ability to participate in University programs or activities. While the University is committed to the free exchange of ideas and the full protection of free expression, the University also recognizes that words can be used in such a way that they no longer express an idea, but rather injure and intimidate, thus undermining the ability of individuals to participate in the University community. The University of California Policies Applying to Campus Activities, Organizations, and Students (hereafter referred to as Policies) presently prohibit a variety of conduct by students which, in certain contexts, may be regarded as harassment or intimidation.

For example, harassing expression which is accompanied by physical abuse, threats of violence, or conduct that threatens the health or safety of any person on University property or in connection with official University functions may subject an offending student to University discipline under the provisions of the Policies. Similarly, harassing conduct, including symbolic expression, which also involves conduct resulting in damage to or destruction of any property of the University or property of others while on University premises may subject a student violator to University discipline under the provisions of Section 102.04 of the Policies.

Further, under specific circumstances described in Section 102.11 of the Policies, students may be subject to University discipline for misconduct which may consist solely of expression. Copies of these Policies are available in the Office of Student Conduct, 1104 Murphy Hall.

Complaint Resolution
One of the necessary measures in our efforts to assure an atmosphere of civility and mutual respect is the establishment of procedures which provide effective informal and formal mechanisms for those who believe that they have been victims of any of the above misconduct.

Many incidents of harassment and intimidation can be effectively resolved through informal means. For example, an individual may wish to confront the alleged offender immediately and firmly. An individual who chooses not to confront the alleged offender and who wishes help, advice, or information is urged to contact the Office of Student Conduct.

In addition to providing support for those who believe they have been victims of harassment, the Office of Student Conduct can help students to consider which of the available options is the most useful for the particular circumstances.

With regard to the Universitywide Student Conduct Harassment Policy, complainants should be aware that not all conduct which is offensive may be regarded as a violation of this Policy and may, in fact, be protected expression. Thus, the application of formal institutional discipline to such protected expression may not be legally permissible. Nevertheless, the University is committed to reviewing any complaint of harassing or intimidating conduct by a student and intervening on behalf of the complainant to the extent possible.

Faculty Code of Conduct
The entire Faculty Code of Conduct, as well as any updates, can be found in the Academic Personnel Manual of the University of California. Part IIA of the Faculty Code of Conduct outlines faculty obligations to students and reads as follows:

Teaching and Students
Ethical Principles: “As teachers, the professors encourage the free pursuit of learning of their students. They hold before them the best scholarly standards of their discipline. Professors demonstrate respect for students as individuals and adhere to their proper roles as intellectual guides and counselors. Professors
make every reasonable effort to foster honest academic conduct and to assure that their evaluations of students reflect each student’s true merit. They respect the confidential nature of the relationship between professor and student. They avoid any exploitation, harassment, or discriminatory treatment of students. They acknowledge significant academic and scholarly assistance from them. They protect their academic freedom.” (from 1966 AAUP statement, revised 1987)

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 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) must 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.

Nonimmigrants who are not precluded from establishing domicile in the U.S. include those who hold valid visas of the following types: A, E, G, H-1, H-4, I, K, L, O-1, O-3, P-1, P-2, R, T, U, or V. To establish residence students must be physically present in California for more than one year, and they must have come here with the intention to make it their permanent home as opposed to coming to this state to go to school.

Physical presence within the state solely for educational purposes does not constitute the establishment of California residence, regardless of the length of stay. Students must demonstrate their intention to make California their home by severing any and all residential ties with their former state of residence and establishing those ties with California. If these steps are delayed, the one-year duration period is extended until students have demonstrated both presence and intent for one full year. If their parents are not California residents over one year of physical presence with intent to remain in the state), students are required to be financially independent in order to be a resident for tuition purposes. Their residence cannot be derived from their spouse, registered domestic partner, or their parents.

Requirements for Financial Independence
Students are considered financially independent if one or more of the following apply: (1) they are at least 24 years of age by December 31 of the calendar year for which they are requesting residence classification; (2) they are a veteran of the U.S. Armed Forces; (3) they are a ward of the court or both parents are deceased; (4) they have legal dependents other than a spouse; (5) they are married, have a registered domestic partner, or are a graduate student or a professional student, and they were not claimed as an income tax deduction by their parents or any other individual for the tax year immediately preceding the term for which they are requesting resident classification; or (6) they are a single undergraduate student and they were not claimed as an income tax deduction by their parents or any other individual for the two tax years immediately preceding the term for which they are requesting resident classification, and they can demonstrate self-sufficiency for two full years prior to the residence determination date of the term they propose to attend the University through their own resources (such as employment, commercial loans, financial aid, and savings that can be officially documented). The two years required for self-support might not coincide with the two tax years during which they must not have been claimed by their parents.

Establishing Intent to Become a California Resident
Indications of students’ intent to make California their permanent residence can include the following: (1) registering to vote and voting in California elections, (2) designating California as their permanent address on all school and employment records, including military records if they are in the U.S. Armed Forces, (3) obtaining a California Driver License or, if they do not drive, a California Identification Card, (4) obtaining California vehicle registration, (5) paying California income taxes as a resident, including taxes on income earned outside California from the date they establish residence, (6) establishing a California residence in which they keep their personal belongings, and (7) licensing for professional practice in California.

The absence of these indicia in other states during any period for which students claim residence cannot serve as an indication of their intent. Documentary evidence is required, and all relevant indications are considered in determining the classification. Intent is questioned if students return to their prior state of residence when the University is not in session.

General Rules Applying to Minors
If students are unmarried minors (under age 18), the residence of the parent with whom they live is considered to be their residence. If they have a parent living, they cannot change their residence by their own act, by the appointment of a legal guardian, or by the relinquishment of their parent’s right of control. If students live with neither parent, their residence is that of the parent with whom they last lived. Unless they are minor aliens present in the U.S. under the terms of a nonimmigrant visa that precludes them from establishing a domicile in the U.S., students may establish their own residence when both their parents
are deceased and a legal guardian has not been appointed. If they derive California residence from a parent, that parent must satisfy the one-year durational residence requirement.

**Specific Rules Applying to Minors**

**Divorced or Separated Parents**

Minor U.S. citizens or eligible aliens may be able to derive California resident status from a California resident parent if they move to California to live with that parent before their 18th birthday. If they 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 the 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 other than a parent for a period of no less than two years. The adult or adults having control must have been residents of California during the one year immediately prior to the residence determination date. The classification continues until students have attained the age of 19 and have lived in the state the minimum time necessary to become a resident, so long as continuous full-time attendance is maintained at a public postsecondary institution.

**Self-Support**

If students are U.S. citizens or eligible aliens and are minors who can prove that they lived in California for the entire year immediately before the residence determination date, that they have been self-supporting for that year, and that they intend to make California their permanent home, they may be eligible for resident status.

**Exemptions from Nonresident Supplemental Tuition**

**Member of the U.S. Armed Forces**

Members of the U.S. Armed Forces may be exempt from nonresident supplemental tuition unless their assignment to California is for the purpose of attending a state-supported institution of higher education. Graduate and professional students are eligible for this exemption for two years, during which time they must fulfill the UC residence requirements in order to maintain their resident status. 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.

Undergraduate 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). In this case, financial independence is not a requirement.

Some members of the U.S. Armed Forces may qualify for an exemption from nonresident supplemental tuition based on the federal Higher Education Opportunity Act of 2008. Under this Act, undergraduate and graduate students who are members 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 their permanent duty station to a location outside of California.

Effective July 2015, certain nonresident veterans (and their dependents) who were separated from U.S. military service within 36 months of enrolling at UC and are eligible for G.I. Bill (Post-9/11 or Montgomery) program funds may qualify for an exemption from nonresident supplemental tuition.

**Spouse, Registered Domestic Partner, or Other Dependents of Military Personnel**

Students are exempt from payment of nonresident supplemental tuition if they are a spouse, registered domestic partner, or natural or adopted child or stepchild who is a dependent of a member of the U.S. Armed Forces stationed in California on active duty. Graduate and professional students are eligible for the exemption only until they have resided in the state the minimum time necessary to become a resident (366 days). Students must petition for a waiver of nonresident supplemental tuition each term they are eligible. If they are enrolled in an educational institution and the member of the Armed Forces is transferred on military orders to a place outside California where he or she continues to serve in the Armed Forces, or the member of the Armed Forces retires from active duty immediately after having served in California on active duty, they may retain this exemption under conditions listed above.

Some dependents of members of the U.S. Armed Forces may qualify for an exemption from nonresident supplemental tuition based on the federal Higher Education Opportunity Act of 2008. Under this Act, undergraduate or graduate students who are the spouse, registered domestic partner or natural or adopted 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 University faculty who is a member of the Academic Senate, they may be eligible for 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 ascertainable 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 until the student has resided in California the minimum time necessary to become a resident.

**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. Nonmigrant 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 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—education, 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 date 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.

**Appeal 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 advisor 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 second 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 or the registrar’s office, as the case may be, may examine the student in the field of the major and, with the approval of the Undergraduate Council, assign a credit value to such general examination. The department may also excuse the student from final examinations in courses offered by the department during that term.

An instructor may release to individual students their original final examinations (or copies). This may be done by any method that ensures the students’ right to privacy. Otherwise, the instructor shall retain final examination materials, or a copy thereof, until the end of the next succeeding regular term of instruction, during which period students shall have access to their examinations.

**Disclosure of Student Records**

Pursuant to the Federal Family Educational Rights and Privacy Act (FERPA), the California Information Practices Act, and the University of California Policies Applying to the Disclosure of Information from Student Records, students at UCLA have the right to (1) inspect and review records pertaining to themselves in their capacity as students, except as the right may be waived or qualified under federal and state laws and University policies; (2) have withheld from disclosure, absent their prior written consent, information from their student records, except as provided by federal and state laws and University policies; (3) inspect records maintained by UCLA of disclosures of personally identifiable information from their student records; (4) seek correction of their student records through a request to amend the records or, if such request is denied, through a hearing; and (5) file complaints with the U.S. Department of Education regarding alleged violations of the rights accorded them by FERPA.

UCLA, in accordance with federal and state laws and University policies, has designated the following categories of personally identifiable information as public information that UCLA may release and publish without the student’s prior consent: name, e-mail address, telephone numbers, major field of study, dates of attendance, number of course units in which enrolled, degrees and honors received, the most recent previous educational institution attended, participation in officially recognized activities (including intercollegiate athletics), and the name, weight, and height of participants on intercollegiate athletic teams.

As a matter of practice, UCLA does not publish student telephone numbers in the campus online directory unless released by the student. The term public information in this policy is synonymous with the term directory information in FERPA.

Students who do not wish certain items (i.e., name, e-mail address, telephone numbers, major field of study, dates of attendance, number of course units in which enrolled, and degrees and honors received) of this public information released and published may so indicate through MyUCLA. To restrict the release and publication of additional items in the category of public information, complete the UCLA FERPA Restriction Request form available from the Registrar’s Office, 1113 Murphy Hall.

Student records that are the subject of federal and state laws and University policies may be maintained in a variety of offices, including the Registrar’s Office, Office of Student Conduct, Career Center, Graduate Division, External Affairs Department, and offices of a student’s College or school and major department. Students are referred to the online UCLA Campus Directory, which lists all the offices that may maintain student records, together with each office campus address and telephone number. Students have the right to inspect their student records in any such office, subject to the terms of federal and state laws and University policies. Inspection of student records maintained by the Registrar’s Office is by appointment only and must be arranged three working days in advance. Call 310-825-1091, option 8; 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.

**Campus Security Information**

**UCLA Police Department**

The UCLA Police Department (UCPD), 310-825-1491, is located at 601 Westwood Plaza. The sworn UCPD police officers are empowered by the state of California with the authority to enforce all state and local laws. UCPD police officers patrol the campus 24 hours a day, 365 days a year. They enforce all applicable local, state, and federal laws; arrest violators; investigate and suppress crime; and provide a full range of police services and community safety programs.
The department is linked by computer to city, state, and federal criminal justice agencies that provide access to information concerning criminal records, wanted persons, stolen property, and vehicle identification. The detective unit handles criminal investigations, and detectives conduct interviews, arrest violators, execute search warrants, and file cases with the Los Angeles District and City Attorney offices.

**Incident Reporting**

UCPD police officers have primary jurisdiction over the UCLA campus, Reagan UCLA Medical Center, Center for the Health Sciences, Santa Monica-UCLA Medical Center, and University Apartments South. The city of Los Angeles Police Department does not routinely handle calls for service on campus or on most UCLA properties. All requests for police service should be made to UCPD. All crime occurring on campus, the Center for the Health Sciences, and other UCLA properties should be reported immediately to UCPD to ensure appropriate action is taken. Crimes occurring off campus should be reported immediately to the local law enforcement agency. UCPD does take reports from students, faculty, and staff for incidents occurring in the Westwood area.

Police, fire, or medical emergencies can be reported by calling 911 from any telephone on campus. All landline telephones (UCLA, private, public) located on UCLA grounds are tied into the 911 emergency system. Emergencies can also be reported by using the blue-hooded or yellow Emergency Reporting Telephones located throughout the campus.

Calls made to 911 from a cell phone may not go directly to UCPD depending on the tower used by the cell phone at the time of the call. Callers should advise the dispatcher and ask if they are speaking with UCPD. If not, and time permits, callers may ask to be transferred to UCPD 911. Nonemergency calls for service can be made by contacting the department at 310-825-1491. Campus community members are encouraged to program the department number into their cell phones and report on suspicious circumstances.

**Crime Statistics and Reports**

As required by the Jeanne Clery Disclosure of Campus Security Policy and Crime 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 also 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 nonintervention 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 the Campus Escort Service and UCLA Safe Ride (formerly Evening Van Service). The Campus Escort Service operates 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 listerv.

**Emergency Medical Services**

UCPD provides emergency medical assistance for the campus community through the Emergency Medical Service program, which is staffed by students certified as emergency medical technicians (EMTs). As in all emergencies, call 911 for this service.

**Alcohol and Substance Abuse Education**

Students with alcohol or substance abuse problems create safety and health risks for themselves and others. Such abuses also 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 11,000 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 commonsense crime prevention techniques. Because the campus is open 24 hours a day, visitation to residence halls and apartments is not restricted. All residence halls have 24-hour access control on entrance doors, and during the evening hours access control monitors are stationed at each entrance. UCPD police officers and CSOs are also assigned to the residence halls.

UCLA-affiliated organizations that maintain off-campus facilities are under the shared jurisdiction of their local police department and the UCLA Police Department, which provides assistance to students, faculty, and staff; and/or referrals to neighboring police departments.

Safety Tips
The nature of the studies and research done at UCLA requires many 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 one parking on campus should remember to lock their vehicles and consider investing in locking devices and/or alarms. Take advantage of all the safety services provided by the UCLA and UCPD. Use the Campus Escort Service 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
Edmund G. Brown, Jr.
Lieutenant Governor of California
Gavin C. Newsom
Speaker of the Assembly
Anthony Rendon
State Superintendent of Public Instruction
Thomas A. Torlakson

President of the Alumni Associations of the University of California
Darin Anderson (2019)
Vice President of the Alumni Associations of the University of California
Jason Morimoto (2019)
President of the University
Janet Napolitano

Appointed Regents
Maria Anguiano (2029)
Richard C. Blum (2026)
Gareth Elliott (2025)
Howard Peter Guber (2029)
George D. Kieffer (2021)
Sherry L. Lansing (2022)
Hadi Makarechian (2020)
Eloy Ortiz Oakley (2024)
Lark Park (2029)
John A. Pérez (2024)
Richard Sherman (2025)
Elien Tauscher (2029)
Charlene Zetl (2021)
Devon Graves, Student Regent (2019)

Faculty Representative to the Board of Regents
Robert C. May (2017-19)

Staff Adviser to the Board of Regents
Sherry Main (2017-19)

Officers of the Regents
President of the Regents
Edmund G. Brown, Jr.
Chair of the Regents
George Kieffer
Vice Chair of the Regents
John A. Pérez
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
Nathan Brostrom
Executive Vice President—Chief Operating Officer
Rachael Nava
Executive Vice President—UC Health
John D. Stobo
Senior Vice President—Innovation and Entrepreneurship
Christine Gulbranson
Senior Vice President—Public Affairs
Claire Holmes, Interim

Vice President—Agriculture and Natural Resources
Glenda Humiston
Vice President—General Counsel
Charles F. Robinson
Vice President—Human Resources
Dwayne B. Ducett
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
Kimberly Budil
Vice President—Research and Graduate Studies
Arthur B. Ellis
Vice President—Student Affairs
Robin H. Holmes-Sullivan
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
Happy T. Yang
Chancellor at Santa Cruz
George W. Blumenthal

UCLA Administrative Officers
Chancellor
Gene D. Block, PhD
Executive Vice Chancellor and Provost
Scott L. Waugh, PhD
Administrative Vice Chancellor
Michael J. Beck, MBA
Vice Chancellor—Academic Personnel
Michael S. Levine, PhD
Vice Chancellor and Chief Financial Officer
Steven A. Olsen, MPP
Vice Chancellor—Equity, Diversity, and Inclusion
Jerry Kang, JD
Vice Chancellor—External Affairs
Rhea Turteltaub, BA
Appendix C: Endowed Chairs / 759

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 466 endowed chairs that have been approved by the Office of the President of the University of California, as follows:

School of the Arts and Architecture
Alma M. Hawkins Memorial Chair
S. Charles Lee Chair in Architecture and Urban Design
Harvey S. Perloff Chair
Shirley and Ralph 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
Theramas R. Bales Endowed Chair in Orthodontics
Dr. Thomas K. Barber Endowed Chair in Pediatric Dentistry
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 Cartter Chair in Higher Education
Carol L. Collins UES Director’s Chair Fund
George F. Kneller Chair in Education and Anthropology
George F. Kneller Chair in Education and Philosophy
Presidential Chair in Education and Diversity
Presidential Chair in Information Studies
Pritzker Family Endowed Chair in Education to Strengthen Families
UNESCO Chair on Global Learning and Global Citizenship Education
Wasserman Endowed Deanship of Education and Information Studies

Henry Samueli School of Engineering and Applied Science
L.M.K. Boelter Chair in Engineering
Vijay K. Dhir Chair in Engineering
Engelkirk Presidential Endowed Chair in Structural Engineering
Traugott and Dorothea Frederking Endowed Chair in Cryogenics
Friedmann Chair in Knowledge Sciences
Leonard Kleinrock Chair in Computer Science
Evelyn Knight Chair in Engineering
Levi James Knight, Jr., 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 Manufacturing Engineering
Charles P. Reames Endowed Chair in Electrical Engineering
Ben Rich Lockheed Martin Chair in Aeronautics
Rockwell Collins Chair in Engineering
John P. and Claudia H. Schauerman Endowed Chair in Engineering
William Frederick Seyer Chair in Materials Electrochemistry
Ronald and Valerie Sugar Endowed Chair in Engineering
Symantec Term Chair in Computer Science
Carol and Lawrence E. Tannas, Jr., Endowed Chair in Engineering
Carol and Lawrence E. Tannas, Jr., Endowed Term Chair in Engineering
William D. Van Vorst Chair in Chemical Engineering Education
Volgenau Chair in Engineering Excellence
Volgenau Chair in Engineering Innovation
Volgenau Endowed Chair in Engineering
Wintek Endowed Chair in Electrical Engineering
School of Law
Norman Abrams Endowed Chair in Law
Omar and Azemeralda Alfi Chair in Islamic Law
Harry Graham Baltzer 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
Anjey and Frances Fearing Miller Chair in Law
Susan Westerberg Prager Endowed Chair in Law
Honorarary Harry Pregerson Endowed Chair in Law
David G. and Dallas P. Price Chair in Law
Michael H. Schill Endowed Chair in Law
Gary T. Schwartz Endowed Chair in Law
Security Pacific Bank Chair
Shirley 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 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 Amuzgar 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. Bhaumik Presidential Endowed Chair in Theoretical Physics
Paul D. Boyer 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. Cuppenshaver Chair
Lloyd E. Cotson 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
De Logi Chair in Biological Sciences
Donald R. Dickey Chair in Vertebrate Biology
Edward A. Dickson Emeritus Professorship
A. Richard Diebold, Jr., Endowed Chair in Indio-European Studies
Distinguished Chair in Environment and Sustainability
Navin and Pratima Doshi Chair in Indian Studies
Mr. and Mrs. C. N. Flint Professorship in Philosophy
Christopher S. Foote Term Chair
Evan Frankel Endowed Chair in English
Gloria and Paul Griffin Chair in Philosophy
Haruhiya Handa Professorship in Shinto Studies
John Charles Hillis Chair in Literature
Marvin Hoffenberg Chair in American Politics and Public Policy
Dr. Myung Ki Hong Endowed Chair in Materials Innovation
Dr. Myung Ki Hong Endowed Chair in Polymer Science
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
Sadie and Ludwig Kahn Chair in Jewish History
Sadie and Ludwig Kahn Endowed Directorship 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 Khaldun Endowed Chair in World History
Leon and Joanne V.C. Knopoff Assistant Professorship in Physics and Geophysics
Alexander and Renée Kolon Endowed Professorship in Molecular Biology and Biophysics
Lauren B. Leichtman and Arthur E. Levine Astrophysics Endowed Chair
Madeleine L. Leetessier Chair in French and Francophone Studies
Thomas E. Lifka Chair in History
Vladimir and Lydka Markov Chair in Russian Literature
John McTague Career Development Chair
Dorothy L. Meier Social Equities Chair
Ronald J. Mellor Chair in Ancient History
Scherie and Donald Morrison Chair in Immunology
Morrison Chair in Microbiology, Immunology, and Molecular Genetics
Morrison Family Endowed Chair
John Muir Memorial Endowed Chair in Geography
Franklin 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
Nickoll Family Endowed Chair in History
1939 Society Samuel Goetz Chair in Holocaust Studies
Joan Palevsky Chair in Classics
Pouravdavoud Endowed Director's Chair
Presidential Chair in Chemistry
Presidential Chair in Developmental Immunology
Presidential Chair in Institute of the Environment
Presidential Chair in Modern European History
Presidential Chair in Molecular Cell Biology
Pritzker Chair in Environment and Sustainability
Pritzker Chair in Environment and Sustainability
Hans Reichenbach Chair in Scientific Philosophy
Peter Reill Chair in European History
Howard Reiss Career Development Chair
Maria Rowena Ross Term Chair in Cell Biology and Biochemistry
Michael and Irene Ross Chair in Yiddish Studies
Musa Sabi Chair in Iranian Studies
David Saxon Presidential Term Chair in Mathematics
David Saxon Presidential Term Chair in Physics
David S. Saxon Presidential Chair in Physics
David O. Sears Presidential Endowed Chair in Division of Social Sciences
Johanna F. and Joseph H. Shaper Family Chair in Microbiology
Joan Silsbee Chair in African Cultural Archaeology
Louis B. and Martha B. Slichter Endowed Chair in Geophysics and Planetary Physics
Louis B. and Martha B. Slichter Endowed Chair in Geosciences
Kenneth L. Sokoloff Chair in Economic History
Charles Speroni Chair in Italian Literature and Culture
Staglin Family Chair in Psychology
Steinmetz Chair in Classical Archaeology and Material Culture
Irving and Jean Stone Endowed Chair I
Irving and Jean Stone Endowed Chair II
Irving and Jean Stone Endowed Chair III
Jean Stone Chair
Keith and Cecilia Terasaka Presidential Endowed Chair in Division of Life Sciences
Kenneth N. Trueblood Endowed Chair in Chemistry and Biochemistry
UCLA Foundation Chair
Viterbi Family Foundation Visiting Professorship in Mediterranean Jewish Studies
Alexander von Humboldt Endowed Chair in Geography
Scott Waugh Endowed Chair in Division of Social Sciences
Eugen Weber Chair in Modern European History
Robert and Dorothy Wellman Chair in Medieval History
Wendell Jeffrey and Bernice Wenzel Term Chair in Behavioral Neuroscience
Dean M. Willard Chair in Chemistry
Saul Weinstein Chair in Organic Chemistry
Appendix C: Endowed Chairs / 761

Linda and Fred Wudl Term Chair
Kyoko Yuki and Masamichi Takesaki Endowed Chair in Operator Algebras
Stanley M. Zimmerman Endowed Chair in Economics and Finance
Jeffrey and Helo Zink Endowed Professional Development Term Chair in Chemistry

John E. Anderson Graduate School of Management
Allstate Chair in Insurance and Finance
Andersen Worldwide Chair in Management
John E. Anderson Chair in Management
Marion Anderson Chair in Management
Arden Realty Chair
Donnalisa ’86 and Bill Barnum Endowed Term Chair in Management
Robert D. Beyer ’83 Chair in Management
California Chair in Real Estate and Land Economics
Edward W. Carter Chair in Business Administration
William M. Cockrum III Presidential Term Chair in Entrepreneurship
William M. Cockrum Professorship in Entrepreneurial Finance
James A. Collins Chair in Management
Warren C. Cordner Chair in Money and Financial Markets
Ernst and Young Chair in Accounting
Laurence D. and Lori W. Fink Endowed Chair in Finance
Henry Ford II Chair in International Management
Joel Fried Chair in Applied Finance
Lee and Seymour Graff Endowed Professorship
Goldyne and Irwin Hearsh Chair in Money and Banking
Hans Hufschmidt Chair in Management
IBM Chair in Management
Joseph Jacobs Chair in Entrepreneurial Studies
Neil Jacoby Chair in Management
Japan Alumni Chair in International Finance
Bud Knapp Marketing Professorship
Harry and Elsa Kunin Chair in Business and Society
J. Clayburn La Force Chair in Management
William E. Leonhard Chair in Management
Los Angeles Times Professor of Management and Policy
Justice Elwood Lui Endowed Term Chair in Management
Chauncey J. Medberry Chair in Management
Peter W. Mullin Chair in Management
Howard Noble Chair in Management
Paine Chair in Management
George Robbins Chair in Management
Sanford and Betty Sigoloff Chair in Corporate Renewal
Term Chair in Teaching Excellence
Term Chair in Management
UCLA Anderson Board of Visitors Term Chair in Management
UCLA Anderson Dean’s Term Chair in Management
UCLA Anderson Faculty Term Chair in Management

J. Fred Weston Chair in Finance
Harold Williams Chair in Management
Ho-Su Wu Chair in Management
Bing (’86) and Alice Liu Yang Endowed Term Chair in Management
Bing (’86) and Alice Liu Yang Endowed Term Chair in Teaching Excellence

David Geffen School of Medicine
William S. Adams, MD, Chair in Medicine
Ahmanson Chair in Ophthalmology
Mary D. Allen Chair in Vision Research
Lori Altshuler Endowed Chair in Mood Disorders
Wallis Annenberg Endowed Chair in Integrative East-West Medicine
Leonard Apt Endowed Chair in Pediatric Ophthalmology
Archstone Foundation Endowed Chair in Geriatrics
Stephen J. Ryan—Arnold and Mabel Beckman Foundation Chair
Casey Lee Ball Endowed Chair in Pediatric Nephrology
Wiley F. Barker Chair in Vascular Surgery
Dena Bat-Yaacov Endowed Chair in Childhood Psychiatry and Biobehavioral Sciences
Ulrich Batzdorf, MD, Chair in Spinal Neurosurgery
Louis D. Beaumont Chair in Surgery
Jerome L. Belzer Chair in Medical Research
Lillian and Alvin L. Bergman Chair in Vascular Research
Bing Professorship in Urologic Research
Anna and Harry Borun Chair in Geriatrics/Gerontology
Bower Professorship in Medical Oncology
Saul Brandman Endowed Chair in Pulmonary Arterial Hypertension
Judson Braun Chair in Biological Psychiatry
Geri and Richard Brawerman Chair in Pediatric Neurosurgery
Gary L. Brinderson Family Chair in Neuro-Intensive Care
Eli and Edythe L. Broad Foundation Chair in Inflammatory Bowel Disease Research
Rubin Brown Chair in Pediatric Neurology
Burrell Family Chair
Ellen O. and Thomas C. Calcaterra, MD, Administrative Chair in Head and Neck Surgery
Joseph Campbell Chair in Child Psychiatry
Iris Cantor Chair in Breast Imaging
Edward W. Carter Chair in Internal Medicine
Casteria Chair in Cardiology
Vincent and Stella Coates Chair in Molecular Neurobiology
Tony Coelho Chair in Neurology
Carol and James Collins Chair
James and Carol Collins Chair in Geriatric Medicine
William E. Connor Chair in Cardiothoracic Transplantation
Eliot Corday Chair in Cardiovascular Medicine and Science
Norman Cousins Endowed Chair in Psychoneuroimmunology

Crump Chair in Medical Engineering
Karen and Frank Dabby Endowed Chair in Ophthalmology
Dr. Alfonsina Q. Davies Endowed Chair in Honor of Paul Crandall, MD, for Epilepsy Research
M. Philip Davis Chair in Microbiology and Immunology
Robert and Kelly Day Chair in Cardiothoracic Surgery
Robert and Kelly Day Chair in General Surgery
Robert and Kelly Day Chair in Surgical Outcomes
Robert and Kelly Day Chair in Transplantation
Jean B. deKernion, MD, Endowed Chair in Urology
Wini and William J. Dignam Chair in Obstetrics and Gynecology
John Bartley Dillon, MD, Endowed Chair in Anesthesiology
Roy and Carol Doumani Chair in Molecular Pharmacology
Doumani Chair in Urological Oncology
Dumont-UCLA Chair in Transplantation Surgery
Max Factor Family Foundation Chair in Nephrology
Charles Kenneth Feldman Chair in Ophthalmology
Elise and Isaac Fogelman Endowed Chair in Pediatric Neurology
Dr. Daniel X. Freedman Administrative Chair in Academic Psychiatry
Joaquim M. Fuster Chair in Cognitive Neuroscience
David Geffen Chair in Informatics
David Geffen Chair in Medical Research
Larine and David Gerber Chair in Ophthalmology
Maggie G. Gilbert Endowed Chair in Bipolar Disorders
Rosalinde and Arthur Gilbert Foundation Endowed Chair in Interdepartmental Clinical Pharmacology
Joan S. and Ralph N. Goldwyn 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
Kaiser Permanente Endowed Chair in Community Medicine
Margaret Holden Jones Kanaar, MD, Chair in Cerebral Palsy
Solomon A. and Marie M. Kaplan Chair of Pediatric Endocrinology
Maddie Katz Endowed Chair in Palliative Care Research and Education
Ronald L. Katz, MD, Endowed Chair in Anesthesiology
Chizuko and Nobuyuki Kawata Chair in Cardiology
Dorothy and Robert Keyser Endowed Chair
Karl Kirchgessner Foundation Chair in Vision Science
Arnold W. Klein, MD, Chair in Dermatology
George F. Kneiller Chair in Family Medicine
Kolokotrones Chair in Ophthalmology
John J. Kuelper Chair in Nephrology and Renal Transplantation
Grace and Walter Lantz Endowed Chair in Ophthalmology
Lya and Harrison Latta Endowed Chair in Pathology
Eleanor Leslie Chair in Innovative Brain Research
Eleanor Leslie Chair in Pioneering Brain Research
Eleanor I. Leslie Chair of Neuroscience
Barbara A. Levey, MD, and Gerald S. Levey, MD, Endowed Chair
Gerald S. Levey, MD, Endowed Chair
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
Matt Eltje Endowed Chair in Pediatrics
David May II Chair in Ophthalmology
John Mazzotta Endowed Chair in Neurology
John Mazzotta, 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
S. Missouri 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
Pennington Foundation Endowed Chair in Pediatrics
Frances and Albert Piansky Chair in Anatomical and Developmental Disabilities Research
Gutiara Pierpoint 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
Revolyn Chair in Women’s Health
Leo G. Rigler Chair in Radiological Sciences
Augustus S. Rose Chair in Neurology
Arthur L. Rosenbaum, MD, Chair in Pediatric Ophthalmology
Maxine and Eugene Rosenfeld Endowed Chair in Computational Genetics
Maxine and Eugene Rosenfeld Endowed Chair in Medical Education
Carol and Saul Rosenzweig Endowed Chair in Cancer Therapies Development
Stephen J. Ryan–Arnold and Mabel Beckman Foundation Chair
Estelle, Abe, and Marjorie Sanders Chair in Cancer Research
Dalkin and Elaine Sarkaria Endowed Chair in Diagnostic Medicine
Bernard G. Sarnat, MD, Endowed Chair in Craniofacial Biology
Evelyn Scheibler Chair in Neuroscience
William Scheibler Chair in Neuroscience
Peter William Shapiro Chair for Center for Cerebral Palsy
Shapiro Family Chair in Child Development Studies and Cerebral Palsy
W. Donald and Ginny M. Shields Term Chair in Child Neurology
Fred Sloton Family Chair in Movement Disorders
Jennifer Jones Simon Chair in Radiation Oncology
Norton Simon Chair in Biophysics
Jonathan Simon Chair in Epilepsy
Henry E. Singleton Chair in Urology
Jack H. Skirball Chair in Multiple Sclerosis Research
Jack H. Skirball Chair in Ocular Immunological Disease
Jack H. Skirball Chair in Pediatrics
P. G. Gene and Elaine Smith Endowed Chair in Alzheimer’s Disease Research
Rebecca Smith Chair in Molecular and Cellular Pathology
Smrotch Family Optometric Clinician-Scientist Chair
Jerome and Joan Snyder Chair in Ophthalmology
Joan and Jerome Snyder Chair in Cornea Diseases
George F. Solomon Professorship in Psychology
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
Stiehm 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
Fixed 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
Vesey Bank-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
Wasserman Professor of Ophthalmology
David Well Chair in Psychiatry and Biobehavioral Sciences
Dr. Louis Jolyon West Chair in Psychiatry
Wildor 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
Susan G. Covel and Mitchel D. Covel, MD, Chair in Music
Mickey Katz Endowed Chair in Jewish Music
Leo M. and Elaine Krown Klein Chair in Performance Studies
Presidential Chair in Music and Interactive Arts
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

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 Endowed Chair in Health Policy 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
Coleman Chair in International Development Studies
Betsy Wood Knapp Chair in Innovation and Creativity

UCLA Institute of American Cultures
George and Sakaye Aratani Chair in Japanese American Incarceration, Redress, and Community
Ralph Bunche Chair in International Studies
Morgan and Helen Chu Endowed Chair in Asian American Studies
Helen and Morgan Chu Endowed Director’s Chair of the Asian American Studies Center
Korea Times—Hankook Ilbo Endowed Chair in Korean American Studies and Law
UCLA Alumni and Friends of Japanese Ancestry Chair in Japanese American Studies

Walter and Shirley Wang Chair in U.S./China Relations and Communications

UCLA International Institute
Rosalinde and Arthur Gilbert Foundation
Endowed Chair in Israel Studies
Dong Soon Im and Mi Ja Im Endowed Chair in Korean Christianity
Paul I. and Hisako Terasaki Chair in Contemporary Japanese Studies
Paul I. Terasaki Chair in U.S.-Japanese Relations

Appendix D: Faculty Honors

Distinguished Teaching Awards

Academic Senate Recipients

Each year the UCLA Alumni Association presents Distinguished Teaching Awards to Academic Senate faculty members. The highly prized awards are presented at the annual Andrea L. Rich Night to Honor Teaching, and selection of recipients is based on recommendations of the Academic Senate Committee on Teaching. Nominations are solicited from academic departments during fall quarter.

The Luckman Distinguished Teaching Awards Program was established in late 1991 after receipt of a generous gift from Harriet and Charles Luckman. Awards given for 1992 through 1997 were named the Luckman Distinguished Teaching Awards.

1991
John F. Barron (Economics)
Hector E. Hall (Physics)
Kenneth N. Trueblood (Chemistry and Biochemistry)

1992
Charles W. Hoffman (Germanic Languages)
Thomas P. Jenkin (Political Science)
Ken Nobe (Chemical Engineering)

1993
Carl W. Hagge (Germanic Languages)
Wendell P. Jones (Education)
Robert H. Sorgenfrey (Mathematics)
Saul Weinstein (Chemistry and Biochemistry)

1994
Mostafa A. El-Sayed (Chemistry and Biochemistry)
Leon Howard (English)
Moshe F. Rubinstein (Civil and Environmental Engineering)

1995
E.A. Carlson (Biology)
W.R. Hitchcock (History)
Allen Parducci (Psychology)
William R. Romig (Microbiology and Molecular Genetics)

1996
George A. Bartholomew (Biology)

William P. Gerberding (Political Science)
Hans Meyerhoff (Philosophy)
Joseph E. Spencer (Geography)

1967
Basil Gordon (Mathematics)
J.A.C. Grant (Political Science)
William Matthews (English)
David S. Saxon (Physics and Astronomy)
E.K.L. Upton (Physics and Astronomy)

1968
Edward W. Graham (Chemistry and Biochemistry)
W. James Popham (Education)
Sydney C. Rittenberg (Microbiology and Molecular Genetics)
Robert P. Stockwell (Linguistics)
Fred N. White (Physiology)

1969
Robert J. Finkelstein (Physics and Astronomy)
Douglas S. Hobbs (Political Science)
J.E. Phillips (English)
Raymond M. Redheffer (Mathematics)
Margret I. Sellers (Microbiology and Immunology)

1970
Ehrhard Bahr (Germanic Languages)
Joseph Cascaranaro (Biology)
B. Lamar Johnson (Education)
Daniel Kivelson (Chemistry and Biochemistry)
Richard D. Lehan (English)

1971
Vernon E. Denny (Chemical Engineering)
Peter N. Ladefoged (Linguistics)
Arthor D. Schwabe (Medicine)
Duane E. Smith (Political Science)
Andreas Tietze (Near Eastern Languages and Cultures)

1972
Barbara K. Keogh (Education)
James N. Miller (Microbiology and Immunology)
David S. Rodes (English)
Ned A. Shearer (Speech)
Charles A. West (Chemistry and Biochemistry)

1973
Kirby A. Baker (Mathematics)
David Evans (Chemistry and Biochemistry)
Albert Hoxie (History)
Nhan Levan (Electrical Engineering)
Judith L. Smith (Physiological Science)

1974
Robert B. Edgerton (Anthropology, Psychiatry and Biobehavioral Sciences)
David S. Eisenberg (Chemistry and Biochemistry)
Victoria A. Fromkin (Linguistics)
Robert C. Neerhout (Pediatrics)
Andrea L. Rich (Speech)

1975
Alma M. Hawkins (World Arts and Cultures)
Morris Holland (Psychology)
Paul M. Schaechter (Linguistics)
Stanley A. Wolpert (History)
Richard W. Young (Neurobiology)
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1976
Marianne Celce-Murcia (Teaching English as a Second Language and Applied Linguistics)
Jesse J. Ducicminier (Law)
George R. Guffey (English)
Marilyn L. Kourslyski (Education)
Chand R. Viswanathan (Electrical Engineering)

1977
Michael J.B. Allen (English)
Henry M. Cherrick (Dentistry)
Richard C. Maxwell (Law)
J. William Schopf (Earth and Space Sciences)
Verne N. Schumaker (Chemistry and Biochemistry)

1978
William R. Allen (Economics)
Michael E. Jung (Chemistry and Biochemistry)
J. Fred Weston (Management)
Thomas D. Wickens (Psychology)
Johannes Wilbert (Anthropology)

1979
Steven Krantz (Mathematics)
Paul L. Rosenthal (Communication Studies)
Christopher Salter (Geography)
James H. White (Mathematics)
Stephen C. Yeazell (Law)

1980
A.R. Braunmuller (English)
Fredi Chiappelli (Italian)
Kenneth L. Karst (Law)
Richard F. Logan (Geography)
Ronald F. Zernicke (Physiological Science)

1981
Arnold J. Band (Near Eastern Languages and Cultures)
Charles L. Batten, Jr. (English)
Lucien B. Guze (Medicine)
Gerald Lopez (Law)
Andy Wong (Dentistry)

1982
Dean Bok (Neurobiology)
Robin S. Liggert (Architectural and Urban Design, Urban Planning)
William Melznt (Theater)
Joseph K. Perloff (Medicine)
Karen E. Rowe (English)

1983
Claude Bernard (Physics and Astronomy)
Bryan C. Ellickson (Economics)
Robert S. Elliott (Electrical Engineering)
Albert D. Hutter (English)
Charles M. Knobler (Chemistry and Biochemistry)

1984
Robert Dallek (History)
Hooshang Kangerloo (Radiological Sciences)
Jeffrey Prager (Sociology)
Stanley Siegel (Law)
Sandra A. Thompson (Linguistics)

1985
Patricia M. Greenfield (Psychology)
David F. Martin (Computer Science)
Mark W. Plant (Economics)
Ross P. Shideler (Comparative Literature, Scandinavian Section)
William D. Warren (Law)

1986
Roger A. Gorski (Neurobiology)
Patricia A. Keating (Linguistics)
Leonard Kleinrock (Computer Science)
Martin Wachs (Urban Planning)
Scott L. Waugh (History)

1987
Lawrence W. Bassett (Radiological Sciences)
E. Bradford Burns (History)
Kenneth W. Graham, Jr. (Law)
Howard Super (Film and Television)
Richard A. Yarborough (English)

1988
Alison G. Anderson (Law)
Ann L.T. Bergren (Classics)
Charles A. Berst (English)
Michael J. Goldstein (Psychology)
Richard L. Sklar (Political Science)

1989
John B. Garnett (Mathematics)
Kathleen L. Komar (Comparative Literature, Germanic Languages)
William G. Roy (Sociology)
Stephen Yenser (English)
Eric M. Zoll (History)

1990
Peter M. Narins (Physiological Science)
Gary B. Nash (History)
John S. Wiley (Law)
Merlin C. Wittrock (Education)
Ruth Yeazell (English)

1991
Michael R. Asimow (Law)
Edward G. Berenson (History)
Robert A. Bjork (Psychology)
Margaret FitzSimmons (Urban Planning)
Kenneth R. Lincoln (English)

1992
Bruce L. Baker (Psychology)
Paul B. Bergman (Law)
Robert B. Goldberg (Molecular, Cell, and Developmental Biology)
Peter E. Kollock (Sociology)
Eugene F. Lutsky (History)

1993
Calvin B. Bedient (English)
Richard B. Baner (Chemistry and Biochemistry)
Katherine C. King (Classics)
William G. Ouchi (Management)
Bruce Schulman (History)

1994
David A. Binder (Law)
Jon P. Davidson (Earth and Space Sciences)
Melvin Oliver (Sociology)
Barbara L. Packer (English)
E. Victor Wolfenstein (Political Science)

1995
Noriko Akatsuka (East Asian Languages and Cultures)
Douglas Hollan (Anthropology)
V.A. Kolve (English)
Jerome Rabow (Sociology)
Paul V. Reale (Music)

1996
Carl A. Abbate (Sociology)
Judith A. Carney (Geography)
William M. Gelb (Chemistry and Biochemistry)
Phyllis A. Guze (Medicine)
Peter B. Hammond (Anthropology)

1997
Utpal Banerjee (Molecular, Cell, and Developmental Biology)
Christine D. Gutierrez (Education)
Susan McClary (Musicology)
Arnold B. Scheibel (Neurobiology, Psychiatry and Biobehavioral Sciences)
Ivan Szelenyi (Sociology)

1998
George W. Bernard (Dentistry)
Verónica Cortez (Spanish and Portuguese)
Wayne A. Dollas (Earth and Space Sciences)
Jayne E. Lewis (English)
Joshua S.S. Muldavin (Geography)

1999
Grace Ganz Blumberg (Law)
Alessandro Duranti (Anthropology)
Richard H. Gold (Radiological Sciences)
N. Katherine Hayles (English)
Bernard Weiner (Psychology)

2000
Scott H. Chandler (Physiological Science)
Efrain Kristal (Spanish and Portuguese)
Hector F. Myers (Psychology)
David Sklansky (Law)
Robert N. Watson (English)

2001
Michael J. Colacurcio (English)
Glen M. MacDonald (Geography)
Kevin Terraciano (History)
James W. Trent (Education)
Brian Walker (Political Science)

2002
Christopher R. Anderson (Mathematics)
Steven G. Clarke (Chemistry and Biochemistry)
Annie O. de Souza (History)
Lee Todd Miller (Pediatrics)
Grant S. Nelson (Law)

2003
Joseph J. DiStefano III (Computer Science, Medicine)
Robin L. Garrel (Chemistry and Biochemistry)
A.P. Gonzalez (Film, Television, and Digital Media)
Mitchell B. Morris (Musicology)
Kirk J. Stark (Law)

2004
David B. Kaplan (Philosophy)
Kathryn A. Morgan (Classics)
Kirk J. Stark (Law)

1999
Jesús Torrecilla (Spanish and Portuguese)
Joan Waugh (History)
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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 Giuliano (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. Pfieffer (Civil Engineering, Psychology)

1990
Lisa Gerrard (Writing Programs)
Andres Durstenfeld (Biology)
Dorothy Phillips (Physiological Science)

1991
Marde S. Gregory (Speech)
Betsy A. Luceigh (Chemistry and Biochemistry)
Cheryl Pfoff (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)

2005
Roger Bourland (Music)
Robert G. Fowell (Atmospheric and Oceanic Sciences)
Elma González (Ecology and Evolutionary Biology)
Elizabeth A. Marchant (Spanish and Portuguese)
Mike Rose (Education)
Keith D. Stolzenbach (Civil and Environmental Engineering)

2006
Robert A. Gurval (Classics)
Patricia M. McDonough (Education)
Albert J. Moore (Law)
Kenneth A. Nagy (Ecology and Evolutionary Biology)
David L. Rigby (Geography)
Geoffrey W. Symcox (History)

2007
John A. Agnew ( Geography)
Devon Carbado (Law)
Valerie J. Matsumoto (Asian American Studies, History)
Behzad Razavi ( Electrical Engineering)
Daniel G. Solorzano (Education)
Blaire Van Valkenburgh (Ecology and Evolutionary Biology)

2008
Elizabeth L. Bjork (Psychology)
Peggy M. Fong (Ecology and Evolutionary Biology)
Linda C. Garro (Anthropology)
Teofilo F. Ruiz (History)
Benjamin J. Schwartz (Chemistry and Biochemistry)
Robert S. Winter (Music)

2009
Roger Detels (Epidemiology)
Luisa M. Iruela-Arispe (Molecular, Cell, and Developmental Biology)
Yung-Ya Lin (Chemistry and Biochemistry)
Mark B. Moldwin (Earth and Space Sciences)
Susan J. Plann (Applied Linguistics, Spanish and Portuguese)
Janice L. Reiff (History)

2010
Katsushi Arisaka (Physics and Astronomy)
Daniel T. Blumstein (Ecology and Evolutionary Biology)
John T. Caldwell (Film, Television, and Digital Media)
Albert J. Courey (Chemistry and Biochemistry)
Jerry Kang (Law)
Steven P. Reise (Psychology)

2011
Ann E. Carlson (Law)
Andrew Christensen (Psychology)
Ian Krouse (Music)
Patricia E. Phelps (Integrative Biology and Physiology)
Yahya Rahmat-Samii (Electrical Engineering)
Philip W. Rundel (Ecology and Evolutionary Biology)

2012
C. Cindy Fan (Geography)
Brandon Koretz (Geriatric Medicine)
Mignon R. Moore (Sociology)
Claudia Parodi-Lewin (Spanish and Portuguese)
Jonathan P. Stewart (Civil and Environmental Engineering)
Christopher S. Tang (Management)

2013
Michael F. Carey (Biological Chemistry)
John J. Colicelli (Biological Chemistry)
Rachelle H. Crobbie-Watson (Integrative Biology and Physiology)
Jonathan H. Grossman (English)
Lynn A. Hunt (History)
David Delgado Shorter (World Arts and Cultures/Dance)
Megan McDonnell Sweeney (Sociology)

2014
Paul H. Barber (Ecology and Evolutionary Biology)
Earl G. Freymiller (Dentistry)
Neil K. Garg (Chemistry and Biochemistry)
Hilary A. Godwin (Environmental Health Sciences)
Hiroshi Motomura (Law)
Felicity A. Nussbaum (English)

2015
Robert W. Fink (Musicology)
Alan Garfinkel (Integrative Biology and Physiology, Medicine)
Thomas W. Gillespie (Geography)
Tyrone C. Howard (Education)
Daniel T. Kamei (Bioengineering)
Joanna C. Schwartz (Law)

2016
Joseph E. Bristow (English)
Mark S. Goorsky (Matters Science and Engineering)
Frank A. Laski (Molecular, Cell, and Developmental Biology)
Elisabeth C. Le Guin (Musicology)
James O. Lloyd-Smith (Ecology and Evolutionary Biology)
Steven A. Margulis (Civil and Environmental Engineering)

2017
Donald G. Buth (Ecology and Evolutionary Biology)
Alex C. Purves (Classics)
Eric Sung (Dentistry)
Abigail G. Saguy (Gender Studies, Sociology)
Ingrid Eagly (Law)
Alvaro Sagasti (Molecular, Cell, and Developmental Biology)

2018
 Lorrie A. Frasure-Yokley (Political Science)
Christopher M. Keity (Society and Genetics)
David W. MacFadyen (Comparative Literature, Musicology)
Vilma Ortiz (Sociology)
C.E.B. Reas (Design/Media Arts)
Sarah Abrevaya Stein (History)
### Gold Shield Faculty Prize

The $30,000 Gold Shield Faculty Prize, an award for academic excellence, was created by the Gold Shield Alumnae of UCLA in celebration of their fiftieth anniversary in 1986. The prize is funded by an endowment of $250,000 raised by Gold Shield for this purpose, which has grown to over $450,000. Guidelines provide that the prize "recognize and reward UCLA faculty members who have demonstrated extraordinary accomplishment in teaching and in research or creative activity...and who have made a significant contribution to undergraduate education." Preference for recipients is given to faculty members in mid-career, who do not often receive the extra professional incentives available to distinguished senior faculty.

The Gold Shield Faculty Prize is awarded to each recipient for scholarly use. The awardee is selected every year by a committee of peers appointed by the Academic Senate. Student and Gold Shield representatives are included. Recipients must come from fields that have undergraduate programs at UCLA.

#### 1986-88
- Michael E. Jung (Chemistry and Biochemistry)

#### 1988-90
- Patricia M. Greenfield (Psychology)

#### 1990-92
- Jeffrey C. Alexander (Sociology)

#### 1992-94
- J. William Schopf (Earth and Space Sciences)

#### 1994-96
- Albert R. Braunmuller (English)

#### 1996-98
- Peter M. Narins (Physiological Science)

#### 1998-00
- Robert B. Goldberg (Molecular, Cell, and Developmental Biology)

#### 2000-02
- Utpal Banerjee (Molecular, Cell, and Developmental Biology)

#### 2002-04
- Richard B. Kaner (Chemistry and Biochemistry)

#### 2004-06
- Andrea M. Ghez (Physics and Astronomy)

#### 2006-08
- Robert N. Watson (English)

#### 2007-09
- William J. Kaiser (Electrical Engineering)

#### 2008-10
- Alicia Gaspar de Alba (Chicana and Chicano Studies)

#### 2009-11
- Robin L. Garrell (Chemistry and Biochemistry)

#### 2010-12
- David H. Gere (World Arts and Cultures)

#### 2011-13
- Matthew D. Lieberman (History)

#### 2012-14
- Kevin B. Terraciano (History)

<table>
<thead>
<tr>
<th>Year</th>
<th>Recipient</th>
<th>Program(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>Nicholas Collaros</td>
<td>French</td>
</tr>
<tr>
<td>1996</td>
<td>Scott Bowman</td>
<td>Political Science</td>
</tr>
<tr>
<td>1997</td>
<td>William McDonald</td>
<td>Film and Television</td>
</tr>
<tr>
<td>1998</td>
<td>Paul Frymer</td>
<td>Political Science</td>
</tr>
<tr>
<td>1999</td>
<td>Patricia Gilmore-Jaffe</td>
<td>Writing Programs</td>
</tr>
<tr>
<td>2000</td>
<td>Nicole Dufresne</td>
<td>French</td>
</tr>
<tr>
<td>2001</td>
<td>George Leddy</td>
<td>Geography, International Development Studies</td>
</tr>
<tr>
<td>2002</td>
<td>Steven Hardinger</td>
<td>Chemistry and Biochemistry</td>
</tr>
<tr>
<td>2003</td>
<td>Marjorie A. Bates</td>
<td>Chemistry and Biochemistry</td>
</tr>
<tr>
<td>2004</td>
<td>Andrew Hsu</td>
<td>Philosophy</td>
</tr>
<tr>
<td>2005</td>
<td>Susan Griffin</td>
<td>Writing Programs</td>
</tr>
<tr>
<td>2006</td>
<td>Roger E. Bohman</td>
<td>Molecular, Cell, and Developmental Biology</td>
</tr>
<tr>
<td>2007</td>
<td>Nancy Ezer</td>
<td>Near Eastern Languages and Cultures</td>
</tr>
<tr>
<td>2008</td>
<td>Eric Marin</td>
<td>Film, Television, and Digital Media</td>
</tr>
<tr>
<td>2009</td>
<td>Brent Corbin</td>
<td>Physics and Astronomy</td>
</tr>
<tr>
<td>2010</td>
<td>Patrick D. Goodman</td>
<td>Law</td>
</tr>
<tr>
<td>2011</td>
<td>Latifeh E. Hagigi</td>
<td>Near Eastern Languages and Cultures</td>
</tr>
<tr>
<td>2012</td>
<td>Stuart Biegel</td>
<td>Education</td>
</tr>
<tr>
<td>2013</td>
<td>Randall J. Fallow</td>
<td>Writing Programs</td>
</tr>
<tr>
<td>2014</td>
<td>Teddi L. Chichester</td>
<td>Writing Programs</td>
</tr>
<tr>
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<td>Mary Paige Greene</td>
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<td>2016</td>
<td>Ting-Ling Chang</td>
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<td>Mary F. Corey</td>
<td>History</td>
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<td>2018</td>
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**Gold Shield Faculty Prize**

The $30,000 Gold Shield Faculty Prize, an award for academic excellence, was created by the Gold Shield Alumnae of UCLA in celebration of their fiftieth anniversary in 1986. The prize is funded by an endowment of $250,000 raised by Gold Shield for this purpose, which has grown to over $450,000. Guidelines provide that the prize "recognize and reward UCLA faculty members who have demonstrated extraordinary accomplishment in teaching and in research or creative activity...and who have made a significant contribution to undergraduate education." Preference for recipients is given to faculty members in mid-career, who do not often receive the extra professional incentives available to distinguished senior faculty. The Gold Shield Faculty Prize is awarded to each recipient for scholarly use. The awardee is selected every year by a committee of peers appointed by the Academic Senate. Student and Gold Shield representatives are included. Recipients must come from fields that have undergraduate programs at UCLA.
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

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)
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