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 7
Martin Luther King, Jr. holiday ... January 20
Presidents' Day holiday .......... February 18
Instruction ends .................... March 15
Common final examinations ........ March 16–17
Final examinations .................. March 18–22
Quarter ends ........................ March 22

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

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

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

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

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.
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Cover: Tunic with Cotton Plants, detail, Moche culture, Peru 500-700 CE, Fowler Museum; Architectural Sculpture (detail), 1966 by Oliver Andrews, painted bronze and welded steel sculpture, Murphy Sculpture Garden; Book of Hours detail, Belt manuscript 37 p8, UCLA Library digital collections; Cabinet and books from The Sette of Odd Volumes bibliophilic club, late 1880s, Clark Library; Esquel pallasite (core-mantle interface of asteroid), Argentina 1951, from the Schlazer Collection, UCLA Meteorite Collection gallery; The Bruin, 1984, bronze statue by Billy Fitzgerald, gift of UCLA Alumni Association, Bruin Plaza.

Title page: Architectural Sculpture, 1966 by Oliver Andrews, painted bronze and welded steel sculpture, Murphy Sculpture Garden. Overseen by the UCLA Hammer Museum, the north campus garden contains more than 70 modern and contemporary works in a five-acre park.

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

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

UCLA Accreditation

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Geography Department
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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

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

Electrical and Computer Engineering Department
Computer Engineering ........................................BS
Electrical and Computer Engineering ........................BS

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

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

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

Herb Alpert School of Music

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

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

Music Department
Music ......................................................... BA, MA, MM, DMA, CPhil, PhD
Music Education .............................................BA

Musicoology Department
Musicoology ...................................................BA, MA, CPhil, PhD

John E. Anderson Graduate School of Management

Management Department
Business Administration ..................................... MBA, EMBA, FEMBA, GEMBA
Business Analytics .......................................... MS
Financial Engineering ........................................MS, 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 furthers its tradition of medical outreach and assures the highest quality of care to Los Angeles and the world. The School of Dentistry, with clinics on campus and in Venice, offers free dental care and treatment to those in need at community health fairs. The Rape Treatment Center—located at the UCLA Medical Center, Santa Monica—offers 24-hour care to victims. Faculty and students in the Fielding School of Public Health work in communities around the world to address disparities underlying differences in the health status of individuals, and the School of Nursing offers care to the poor and homeless through its nurse-managed health center at the Union Rescue Mission.

UCLA also supports K-12 enhancement programs such as the Music Partnership Program in the Herb Alpert School of Music, which funds UCLA students to be academic and musical mentors for at-risk youth.

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

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

**HISTORY OF UCLA**

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

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

Continued growth mandated a site that could support a larger campus, and in 1927 ground was broken in the chaparral-covered hills of Westwood. The four original buildings—Royce Hall, 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, Academic programs offered at UCLA span the breadth and extraordinary richness and diversity of teaching programs.

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.
about UCLA policies on planned academic leave (PAL), transfer credit, financial support, and more. UC financial aid is not available for study abroad on non-UC programs.

Summer Sessions

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

Specialized Research Centers, Laboratories, and Institutes

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

Social Sciences

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

Health Sciences

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

Engineering and Physical Sciences

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

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,
and atmospheric sciences; bioengineering; chemical, civil, electrical, environmental, manufacturing, mechanical, and nuclear engineering; computer science and electronics; energy technology; mathematics; metals and materials; pollution; and statistics. SEL/Geology in the Geology Building houses materials on geology, geophysics, geochemistry, space physics, planetary science, regional geology, paleobiology, micropaleontology, invertebrate paleontology, ore deposits, geomorphology, hydrology, chemical oceanography, and all U.S. Geological Survey publications of western U.S. state geological surveys.

**SPECIAL ARCHIVES AND COLLECTIONS**

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

**Cultural Center Collections**

The [Bunche Center for African American Studies Library and Media Center](#) contains materials reflecting the African American experience in the social sciences, arts, and humanities. The [American Indian Studies Center Library](#) houses a collection on American Indian life, culture, and state of affairs in historical and contemporary perspectives. The [Asian American Studies Center Library/Reading Room](#) features Asian American and Pacific Islander resources. Materials related to Chicano and Latino cultures are housed in the [Chicano Studies Research Center Library](#). The [William Andrews Clark Memorial Library](#) contains rare books, manuscripts, and other noncirculating materials on English culture (1641 to 1800). The [English Reading Room](#) features a noncirculating collection of British and American literature, literary history, and criticism.

**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.

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

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

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

Student Safety and Security

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

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

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

UCLA Campus Assault Resources and Education (CARE) Prevention and Education Services—including workshops, self-defense classes, counseling, and referrals—increase physical and psychological preparedness and heighten
awareness of the complex issues of rape, sexual assault, and relationship violence.

UCLA Consultation and Response Team (CRT) is a group of professional staff members charged with responding to reports of students in distress, with representatives from the College, Dean of Students, Counseling and Psychological Services, Residential Life, and UCLA Police.

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

**UCLA EMERGENCY NUMBERS**

<table>
<thead>
<tr>
<th>Service</th>
<th>Number</th>
</tr>
</thead>
<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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</tbody>
</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 affordably priced concerts.

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

**Publications, Web, and Broadcast Media**

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

**Daily Bruin**

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

**Newsmagazines**

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

**Online Media**

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

**UCLAradio**

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

**Yearbook**

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

**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-hour BruinView™ 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 carpoools 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 off-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, Borofondo, 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 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 basketball, 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, kayaking, and hiking.

Class Programs

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

Facilities

For registered students who prefer independent recreation and exercise, UREC offers access to many facilities. The John R. Wooden Recreation and Sports Center has multiple gymnasiums; basketball, volleyball, and badminton courts; handball/racquetball/squash courts; a weight training 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, SYCAMORE Tennis Courts, 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 eighth grade may be used to meet part or all of this requirement. American Sign Language and classical languages such as Greek and Latin are acceptable
F. Visual and Performing Arts. One year-long visual and performing arts course selected from dance, drama/theater, music, or visual art
G. College Preparatory Electives. One year (two semesters), in addition to those required in A through F, or one year (two semesters) approved in the elective category

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

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

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

Admission Selection

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

Admission as a Transfer Student

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

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

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

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

Intercampus Transfers

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

Transfer Credit and Credit by Examination

UCLA awards unit credit to transfer students for certain courses completed at other regionally accredited colleges and universities. To be accepted for credit, the courses must be comparable to those offered at UCLA, as determined by Undergraduate Admission. All courses that meet the criteria are used in determining eligibility for admission.

To convert semester units into quarter units, multiply the semester units by 1.5. For example, 12 semester units × 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. UCHISP components are medical, vision, dental, and behavioral health services.

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

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.

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**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, Army, and Navy/Marine Corps. Completed four-year scholarship applications should be submitted by December 1 (Air Force), January 31 (Navy/Marine Corps), or February 28 (Army) of the year preceding college matriculation. Two- (Army and Navy/Marine Corps) and three-year scholarship applications are also available, and are considered when received.
Grants
Grants are 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.

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

Federal Supplemental Educational Opportunity Grants
Federal Supplemental Educational Opportunity Grants (FSEOG) are awarded to undergraduate students with financial need. Awards range from $100 to $4,000. Recipients must be U.S. citizens or eligible noncitizens. Preference is given to Pell Grant and Cal Grant recipients. Only on-time, grant-eligible FAFSA 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 halftime enrollment. Repayment begins six months after students leave school or drop below halftime 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 campuswide conferences and events; and coordinate the Student Research Program (SRP), and administer summer research centers offer mentoring and tutorials, manage the 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.

**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
Academic assistance and support is available from student, staff, and faculty advisers, and through student services, tutorials, and other special programs.

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

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

New Student and Transition Programs also offers the College Summer Institute (CSI), a six-week residential program in which new first-year students get a head start on graduation requirements through UCLA summer courses. During the academic year, additional programs offer academic advising and successful transition to the second year. For more information, contact the New Student and Transition Programs office in 201 Covel Commons.
College and School Advisers
The College and each school and academic department at UCLA have a staff of academic counselors and advisers to help students plan their academic program, monitor their progress toward the bachelor’s degree, provide 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,
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 Samuei 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 all universities 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 Study

Graduate students at UCLA benefit from—and contribute to—the resources of one of the country’s outstanding research universities. A distinguished faculty committed to research and teaching; an extensive library system ranked among the best in the nation; and excellent research centers, institutes, and laboratories in virtually every major discipline all 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 specially approved by the dean of the Graduate Division, as must any University financial assistance for students having NDO status.

Duplication of Degrees

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

Summer Session Classes

Enrollment in summer session classes does not constitute admission to graduate standing, nor does it substitute for the required continuous registration in fall, winter, and spring quarters. Students who wish to apply summer sessions classes to their subsequent graduate program should consult in advance with their departmental adviser. This is also true if they have been readmitted to graduate 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. UCGHIP components are medical, vision, dental, and behavioral health services.

The UCHSHIP fee is billed each term along with other UCLA fees. UCGHIP 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 UCGHIP, 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 UCGHIP
Students may waive UCGHIP 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 UCHSHIP for a stu-
dent. 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.

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 that 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 advisor 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
should complete the online fellowship application. Completed fellowship applications must be returned to the home department by the published deadlines. Some departments have earlier deadlines; see Graduate Division continuing student funding for details.

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

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

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

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

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

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

Financial aid is also available to UCLA students enrolled in summer travel, summer institutes, or UC cross-campus summer programs. See Financial Aid and Scholarships.

Financial aid awards include work-study and low-interest loans. Students are usually awarded a financial aid package that is a combination of these forms of assistance. More information is available from Financial Aid and Scholarships, A129J Murphy Hall.

DEGREE REQUIREMENTS
The following information is for prospective applicants and those outside 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.

UNDERGRADUATE LEVELS

<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.

GRADUATE LEVELS

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

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

**Grade-Point Average**

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

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

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

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

**Passed/Not Passed Grades**

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

The grade P is assigned for a letter grade of C or better. Units earned this way count toward degree requirements but do not affect the GPA. Students receive neither units nor course credit for a grade of NP.

Students may enroll in one course each term on a P/NP basis (two courses if they have not elected the P/NP option in the preceding term). Their department or school may require that they take some or all courses in their major for a letter grade. Certain other courses or programs may also be exempt from the P/NP option; contact the College or school for details.

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

**Satisfactory/Unsatisfactory Grades**

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

Courses taken on an S/U basis outside the major, and 500-series courses within the major, are applicable toward degree and/or academic residence requirements if so approved. Interdepartmental majors may not apply S/U courses to degree requirements, except for 500-series courses.

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

**Incomplete Grades**

Once a grade of Incomplete (I) is assigned, it remains on the transcript along with the passing grade students may later receive for the course. The instructor may assign the grade I when work is of passing quality but is incomplete for a good cause (such as illness or other serious problem). It is the student’s responsibility to discuss with the instructor the possibility of receiving an Incomplete as opposed to a nonpassing grade.
If a grade of I is assigned, students may receive unit credit and grade points by satisfactorily completing the coursework as specified by the instructor. Students should not re-enroll in the course; if they do, it is recorded twice on the transcript. If the work is not completed by the end of the next full term in residence, the I lapses to an F, NP, or U as appropriate. For undergraduate students, the College or school may extend the deadline in unusual cases.

**In Progress Grades**

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

**Deferred Report Grades**

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

**Correction of Grades**

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

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

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**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**

Withdrawing 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 (PAL) from UCLA. After they are accepted into a program, students must register the program with the UCLA International Education Office (IEO), B300 Murphy Hall. Registering the program also generates the student application for the PAL.

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

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

Undergraduate Readmission

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

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

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

Readmission Deadlines

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

Graduate Student Continuous Registration Policy

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

Graduate Leave of Absence

Continuing graduate students in good standing (3.0 GPA or above) who have completed at least one term of UCLA graduate work may, with the support of their department and approval of the Graduate Division, be eligible for leaves of absence. Graduate students are allowed three quarters of official leave of absence.

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 multi-color 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.

**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.

**DEGREES**

Students must satisfy University requirements, College or school requirements, and department requirements as described in this catalog.
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 completed at any institution outside of the University of California. The University of California does not grant transfer credit for community college or lower-division courses beyond 105 quarter units, but students may still receive subject credit for this coursework to satisfy lower-division requirements. Units earned through Advanced Placement (AP), International Baccalaureate (IB), and/or A-Level examinations are not included in the limitation. Units earned at any UC campus (through extension, summer, cross-campus, UCEAP, Intercampus Visitor Program, and regular academic year enrollment) are not included in the limitation. To convert semester units into quarter units, multiply the semester units by 1.5; for example, 12 semester units x 1.5 = 18 quarter units. To convert quarter units into semester units, multiply the quarter units by .666; for example, 12 quarter units x .666 = 7.99 or 8 semester units.

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

UCLA Extension
Students who wish to receive degree credit for work taken through UCLA Extension should take courses that correspond in number to the undergraduate courses offered in regular session. The designation XL or XLC before the number of the Extension course signifies that the course is equivalent to the regular-session course bearing the same number. Grades earned by undergraduate students in the 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 for students who entered fall quarter 2012 and later. Students who entered prior to fall quarter 2012 may request a degree check from the undergraduate student affairs adviser, 2-147 Factor Building.

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

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

Graduate Degrees
For graduate degree requirements and procedures, see program requirements for UCLA graduate degrees and Standards and Procedures for Graduate Study at UCLA.

Certificate of Resident Study
International students who must leave UCLA and the U.S. before completing a degree or certificate program may request a Certificate of Resident Study in addition to a formal transcript. The certificate cannot be awarded if the studies involved are covered by a diploma or other certificate. The chair of the major department recommends award of the certificate through a petition to the College, school, or Graduate Division.

To be eligible to receive the certificate, students must have completed a program of at least nine courses with a minimum GPA of 2.0 (2.5 for Graduate Division students) and have satisfactorily completed a research project over a period of nine or more months.

GRADUATION
The awarding of degrees is the culmination of several steps that begin when students identify the term in which they expect to complete degree requirements.

Undergraduate Students
Approximately nine out of every 10 UCLA undergraduates eventually receive a bachelor's degree, either from UCLA or from another campus or institution. One-third of all UCLA bachelor's degree recipients go on to graduate school.

Declaration of Candidacy
To initiate the steps leading to the award of a bachelor's degree, students must identify the term in which they expect to complete degree requirements, through MyUCLA, by the time they complete 160 units (172 units for engineering students). The identified term must be within the academic year (four quarters) subsequent to the term in which students reach or expect to reach the 160- or 172-unit limit. Once they complete 160 or 172 (or more) units, a fee is assessed each time students identify or change the degree-expected term. Current- or past-term candidates over the unit limit must file a Declaration of Candidacy form with the Registrar's Office.

Friday of the second week of the term is the last day to declare candidacy for the current term (with fee depending on units completed). Declaration of candidacy after week two incurs a late fee, and may result in a degree-award date for the following term.

Students can verify the degree-expected term through MyUCLA. For questions about degree candidacy status, College students may inquire at the Registrar's Office. Arts and Architecture; engineering; music; nursing; and theater, film, and television students should contact their school office. A photo ID is required. Declaring candidacy is not a guarantee of graduation.

In Absentia Graduation
Students who intend to complete degree requirements while nonregistered (those who take a course through UCLA Extension or at another institution, remove an Incomplete grade, and so on) must file a request to graduate in absentia, with their degree auditor in 1113 Murphy Hall, by the week-two candidacy deadline. Students graduating in absentia are assessed the undergraduate in absentia degree-processing fee, in addition to the 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.
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 doctoral 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, 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 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 quantitative reasoning and reciprocity requirements. No transfer student is admitted to the College 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 College Faculty Executive Committee.

Approved courses include
- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 2 (or any higher-number course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A-103B-103C, 105A-105B-105C, 189, 189HC, 195, 197, 199)
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Statistics 10, 12, 13

Foreign Language Requirement

The foreign language requirement may be satisfied by one of the following methods: 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.

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 exam score of 26 or better. Approved UCLA courses and examinations, and qualifying scores, are determined by the College Faculty Executive Committee.

Applicable courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.
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.

### 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

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### GENERAL EDUCATION REQUIREMENTS

<table>
<thead>
<tr>
<th>Foundations of the Arts and Humanities</th>
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<tbody>
<tr>
<td>Literary and Cultural Analysis</td>
<td>1 course</td>
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<tr>
<td>Philosophical and Linguistic Analysis</td>
<td>1 course</td>
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<tr>
<td>Visual and Performance Arts Analysis and Practice</td>
<td>1 course</td>
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<td>Total</td>
<td>15 units minimum</td>
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<th>Foundations of Society and Culture</th>
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<tbody>
<tr>
<td>Historical Analysis</td>
<td>1 course</td>
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<tr>
<td>Social Analysis</td>
<td>1 course</td>
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<td>Third course from either subgroup</td>
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<tr>
<td>Life Sciences</td>
<td>2 courses</td>
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<tr>
<td>Physical Sciences</td>
<td>2 courses</td>
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<tr>
<td>Other courses in the subgroups may be 4 units</td>
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<tr>
<td>Total</td>
<td>18 units minimum (12 min. fall 2018–spring 2019)</td>
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**Total GE** | 10 courses/48 units minimum | (9 courses/42 units minimum F18-S19)
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.
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 departmental 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-
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

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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 (CICCQ) conducts high-quality, policy-relevant research, with focus on improving the early care and education environments of young children. Utilizing expertise in the areas of child development, professional development, child care quality, attachment, and observational and survey research methodology, CICCQ conducts basic, applied, and policy-driven research at the local, state, and national levels. CICCQ takes a collaborative approach to the evaluation process, building relationships with community partners to inform research, practice, and professional development.

Center for Information as Evidence
The Center for Information as Evidence (CIE) is an interdisciplinary forum to address the ways in which information objects and systems are created, used, and preserved as legal, administrative, scientific, social, cultural, and historical evidence. CIE is committed to incorporating perspectives from ethnic communities around the world, to sustain the diversity within indigenous cultural heritages and broaden methods of information analysis and conservation.

Center for 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.

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, 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– grade 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– or Passed grade is not acceptable). The course may be applied toward the Engineering Writing requirement.

General Education Requirements
General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Students may take one GE course per term on a Passed/Not Passed (P/NP) basis if they are in good academic standing and are additionally enrolled in nine letter-graded units. For details on P/NP grading, see Grades in
the Academic Policies chapter or consult the Office of 
Academic and Student Affairs.

GE courses used to satisfy the engineering writing and/or ethics requirements must be taken for a letter grade.

**FOUNDATIONS OF KNOWLEDGE**

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Five courses (24 units minimum) are required. Engineering writing requirement courses also approved for GE credit may be applied toward the relevant GE foundational areas.

Students must meet with a counselor in the Office of Academic and Student Affairs to determine the applicability of GE cluster courses toward the engineering writing or GE requirements.

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

**Foundations of the Arts and Humanities.** Two 5-unit courses selected from two different subgroups:

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

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

**Foundations of Society and Culture.** Two 5-unit courses, one from each subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

**Foundations of Scientific Inquiry.** One course (4 units minimum) from the Life Sciences subgroup or one course from Bioengineering CM145/Chemical Engineering CM145, Chemistry and Biochemistry 153A, or Civil and Environmental Engineering M166/Environmental Health Sciences M166:

- Life Sciences

This requirement is automatically satisfied for Bioengineering and Chemical Engineering majors. The requirement is satisfied for Civil Engineering majors by the natural science requirement.

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

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

**Intersegmental General Education Transfer Curriculum**

Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely.
before enrolling at UCLA. Otherwise, they must fulfill the Henry Samueli School of Engineering and Applied Science GE requirements. The school does not accept partial IGETC.

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

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

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

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

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

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

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

Study List
The study list is a record of classes that a student is taking during a particular term. It is the student’s responsibility to present a study list that reflects satisfactory progress toward the degree. Study lists or programs of study that do not comply with the standards set by the faculty may result in enforced withdrawal from UCLA or other academic action. Study lists require approval of the dean of the school or a designated representative.

Undergraduate students in the school are expected to enroll in at least 12 units each term. Students enrolling in fewer than 12 units must obtain approval by petition to the dean before enrolling in classes. The normal program is 16 units per term. Students may not enroll in more than 21 units per term unless an Excess Unit Petition is approved in advance by the dean.

Minimum Progress
Full-time undergraduate students must complete a minimum of 36 units in three consecutive terms in which they are registered.

Credit Limitations
The following credit limitations apply to all undergraduate students enrolled in the school:

Advanced Placement Examinations. Some portions of Advanced Placement (AP) Examination credit are evaluated by corresponding UCLA course number. If students take the equivalent UCLA course, a deduction of UCLA unit credit is made prior to graduation. See the school AP table.

College Level Examination Program. Credit earned through the College Level Examination Program (CLEP) may not be applied toward the bachelor’s degree.

Community College/Lower Division Transfer Limitations. Effective for students admitted fall 2017 and later, after completing 105 lower-division quarter units toward the degree in all institutions attended, students are allowed no further unit credit for courses completed at a community college or for lower-division courses completed at any institution outside of the University of California. The University of California does not grant transfer credit for community college or lower-division courses beyond 105 quarter units, but students may still receive subject credit for this coursework to satisfy lower-division requirements. Units earned through Advanced Placement (AP), International Baccalaureate (IB), and/or A-Level examinations are not included in the limitation. Units earned at any UC campus (through extension, summer, cross-campus, UCEAP, Intercampus Visitor Program, and regular academic year enrollment) are not included in the limitation. To convert semester units into quarter units, multiply the semester units by 1.5; for example, 12 semester units x 1.5 = 18 quarter units. To convert quarter units into semester units, multiply the quarter units by .666; for example, 12 quarter units x .666 = 7.99 or 8 semester units.

Foreign Language. No credit is granted toward the bachelor’s degree for college foreign language courses equivalent to quarter levels one and two if the equivalent of level two of the same language was completed with satisfactory grades in high school.

Repetition of Courses
For undergraduate students who repeat a total of 16 or fewer units, only the most recently earned letter grades and grade points are computed in the grade-point average.
(GPA). After repeating 16 units, the GPA is based on all letter grades assigned and total units attempted. The grade assigned each time a course is taken is permanently recorded on the transcript.

1. To improve the grade-point average (GPA), students may repeat only those courses in which they receive a C– 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. 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 Samueli 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 Samueli School of Engineering and Applied Science. The department offers evening classes, short courses, certificate programs, special events, and education and training at the workplace.

Graduate Study

Concurrent Degree Program

A concurrent degree program between the Henry Samueli School of Engineering and Applied Science and the Anderson Graduate School of Management allows students to earn two master’s degrees simultaneously: the MBA and the MS in Computer Science. 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, and contributing to the quality of life in Los Angeles and beyond.

Schoenberg Music Building includes the Jan Popper Theater (recital hall) and Schoenberg Hall (main concert hall), both fully equipped for audio recording. The building also houses the Music Library, Ethnomusicology Archive, Ethnomusicology Laboratory, Henry Mancini Media Laboratory, World Instrument Collection, and the 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 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).

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 enroll-
ing 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 seven terms of enrollment by completing one course from a faculty-approved list of Writing II courses and available on the student Degree Audit; see 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 or minor requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.

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

Quantitative Reasoning Requirement

Students must demonstrate basic skills in quantitative reasoning. The requirement may be satisfied by completing one approved UCLA course (see list below) for a C or Passed grade or better (a C– or Not Passed grade is not acceptable).

The quantitative reasoning requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics section score of 600 or better for exams taken January 2016 or earlier, or achieving an SAT Mathematics section score of 620 or better for exams taken March 2016 or later, or an SAT Subject Test in Mathematics score of 550 or better.

If approved for general education (GE) credit, applicable courses may also fulfill a GE requirement.

Approved courses include

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 2 (or any higher-number course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A-103B-103C, 105A-105B-105C, 189, 189HC, 195, 197, 199)
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Statistics 10, 12, 13

Foreign Language Requirement

Students may meet the foreign language requirement by scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin; presenting a UCLA foreign language proficiency examination score indicating competency through level three; or completing one college-level foreign language course equivalent to level three or above or American Sign Language 1, 2, and 3, or 8 at UCLA with a C grade or Passed or better. The foreign language requirement must be completed within the first six terms of enrollment.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language and reciprocity requirements.

Courses that may be used to fulfill this requirement are published on 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

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**GENERAL EDUCATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course List</th>
<th>Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Foundations of the Arts and Humanities</td>
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<tr>
<td>Literary and Cultural Analysis</td>
<td>1 course</td>
<td>1 unit</td>
</tr>
<tr>
<td>Philosophical and Linguistic Analysis</td>
<td>1 course</td>
<td>1 unit</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis and Practice</td>
<td>1 course</td>
<td>1 unit</td>
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<tr>
<td><strong>Total = 15 units minimum</strong></td>
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<tr>
<td>Foundations of Society and Culture</td>
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<tr>
<td>Historical Analysis</td>
<td>1 course</td>
<td>1 unit</td>
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<tr>
<td>Social Analysis</td>
<td>1 course</td>
<td>1 unit</td>
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<tr>
<td>Third course from either subgroup</td>
<td>1 course</td>
<td>1 unit</td>
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<tr>
<td><strong>Total = 15 units minimum</strong></td>
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<tr>
<td>Foundations of Scientific Inquiry</td>
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<tr>
<td>Life Sciences/Physical Sciences</td>
<td>2 courses</td>
<td>10 units</td>
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<tr>
<td>Two courses from either subgroup. If both courses</td>
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<tr>
<td>are selected from the same subgroup, they must</td>
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<td>be from different departments.</td>
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<td><strong>Total = 8 units minimum</strong></td>
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<tr>
<td><strong>Total GE . . . . . . . . . . . . . . . . . . . . . 8 courses/38 units minimum</strong></td>
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A Writing II course also approved for general education may be applied toward the relevant general education foundational area.
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
units). 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
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.
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.

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
are all examples of public health in action. Increasingly public health is called on to help determine which clinical approaches to an individual health problem are best (outcomes research), and to assess and identify disparities in access to health care, quality of health care, and health status.

The UCLA Jonathan and Karin Fielding School of Public Health is among the top public health schools in the country, and offers superior public health training and real-world experience. School classrooms and laboratories are located in the Center for Health Sciences (CHS) shared with the Geffen School of Medicine, School of Dentistry, and School of Nursing, and just steps away from its science facilities and schools of engineering, law, management, and public affairs.

The school is enriched by its location in Los Angeles, where a melting pot of cultures, industries, environmental situations, and urban issues offers unparalleled opportunities for education, research, and service. Its location also supplies students and faculty members with a unique opportunity to be involved with cutting-edge health care issues, as many of the health system changes have origins in Southern California.

Students can look forward to working with acclaimed public health experts and innovators. Among its 250 faculty members are more than 15 members of the prestigious Institute of Medicine, three past presidents of the American Public Health Association, and two past presidents of the International Epidemiological Association.

The school’s 611 students are among the most talented and promising in the nation. They are a culturally diverse group—one of the most diverse of all schools of public health—representing more than 23 countries and nearly every region of the U.S. Graduates continue to make an impressive impact on the field and can be found at the forefront of all major public health efforts.

**Departments**

The school offers graduate programs leading to both academic and professional degrees in five departments. The Department of Biostatistics develops statistical and analytical techniques for public health use. The Department of Community Health Sciences addresses behaviors that prevent disease and enhance health; health problems of high-risk groups (women, children, the aged, the poor, the disadvantaged, and racial and ethnic minorities); health education and promotion; public health policy; community nutrition; and international health. The Department of Environmental Health Sciences elucidates health hazards in the general environment and in the workplace. The Department of Epidemiology is concerned with the nature, extent, and distribution of disease and health in populations. The Department of Health Policy and Management deals with the organization, financing, delivery, quality, and distribution of health care services. The school also administers an interdepartmental degree program in molecular toxicology.

See the Curricula and Courses chapter for more information on each department.

**Degrees and Programs**

The Fielding School of Public Health offers the following degrees and undergraduate minor:

- Biostatistics MS, PhD
- Community Health Sciences MPH-HP, MS, PhD
- Environmental Health Sciences MS, PhD
- Epidemiology MS, PhD
- Health Policy and Management EMPH, MS, PhD
- Molecular Toxicology PhD
- Public Health MPH, DrPH

**Articulated Degree Programs**

- Public Health MPH/Latin American Studies MA
- Public Health MPH/Medicine MD

**Concurrent Degree Programs**

- Community Health Sciences MPH/Urban and Regional Planning MURP
- Environmental Health Sciences MPH/Urban and Regional Planning MURP
- Public Health MPH/African Studies MA
- Public Health MPH/Asian American Studies MA
- Public Health MPH/Law JD
- Public Health MPH/Management MBA
- Public Health MPH/Public Policy MPP
- Public Health MPH/Social Welfare MSW

**Undergraduate Minor**

- Public Health

**Admission**

Admission criteria established by the UCLA Graduate Division require a bachelor’s degree from a regionally accredited institution comparable in standard and content to a bachelor’s degree from the University of California. A scholastic grade-point average of B (3.0 on a 4.0
degree 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 news 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 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 policymakers in public, private, and nongovernmental sectors. The undergraduate major offers students a rigorous conceptual and empirical foundation that prioritizes capacity for action by students exhibiting high motivations for public service and social change. Faculty members are actively engaged in research that addresses pressing national and regional issues including immigration, drug policy, prison reform, health care financing, transportation and the environment, national security, economic development, and the aging U.S. and world population.

Departments
The school comprises three academic departments—Public Policy, Social Welfare, and Urban Planning—and faculty members from such diverse disciplines as economics, geography, history, law, management, and political science. The school trains policy professionals, planners, and social workers for public, private, and 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 21 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 examinations, and qualifying scores, are determined by the school Faculty Executive Committee.

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
- Program in Computing 10A, 10B, 10C
- Statistics 10, 12, 13

**Foreign Language Requirement**
The foreign language requirement may be satisfied by one of the following methods: scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 in Latin; presenting a UCLA foreign language departmental examination score indicating competency through level three; or completing a college-level foreign language course equivalent to level three or above at UCLA with a C or Passed 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 a 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-
fered 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 dispossessions 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.

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

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

Unit Requirement
Students must complete for credit, with a passing grade, no fewer than 180 units and no more than 216 units, of which at least 64 units must be upper-division courses (numbered 100 through 199). Credit for upper-division tutorials numbered 195 through 199 is limited to a maximum of 8 units in a single term, and a maximum of 32 units total for a letter grade. Each major may have limitations on the number of upper-division tutorials and/or units that may be applied toward degree requirements.

Scholarship Requirement
A 2.0 (C) average is required in all work attempted at the University of California, Extension and those graded Passed/Not Passed. A 2.0 (C) grade-point average is also required in all upper-division courses in the major taken at the University of California, as well as in all courses applied toward the general education and UC requirements.

Academic Residence Requirement
Students are in residence while enrolled and attending classes at UCLA with a declared major in the School of the Arts and Architecture. Of the last 45 units completed for the bachelor's degree, 35 must be earned while in residence at the school. No more than 18 of the 35 units may be completed in UCLA Summer Sessions.

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

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

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. The courses must be taken for a letter grade, and students must receive a C 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 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

DEGREE REQUIREMENTS

University Requirements
1. Entry-Level Writing or English as a Second Language
2. American History and Institutions

School Requirements
1. Unit
2. Scholarship
3. Academic Residence
4. Writing Requirement
   Writing I
   Writing II
5. Quantitative Reasoning
6. Foreign Language
7. 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 need Examination. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

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.


**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 relationships 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 must 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.

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**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 memos, 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/Education MEd, MA, EdD, or PhD
Law JD/Management MBA
Law JD/Philosophy PhD
Law JD/Public Health MPH
Law JD/Public Policy MPP
Law JD/Social Welfare MSW
Law JD/Urban and Regional Planning MURP

In addition to the concurrent programs above, students may design a tailored program from other disciplines in the UCLA curriculum or from another high-quality institution; this must be arranged in consultation with the School of Law and the other selected program.

Detailed information about academic programs, course titles and descriptions, fees, and the semester-system calendar by which the school operates are available on JD degrees and specializations.

Juris Doctor Degree

UCLA School of Law has as one of its central purposes the training of attorneys who attain high levels of professional excellence and integrity, and who exercise civic responsibility in myriad ways over long careers.

Admission

Students must have received a bachelor’s degree from a university or college of approved standing before 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 entire file is considered, including letters of recommendation; whether economic, physical, or other challenges have been overcome; scholarly achievements such as graduate study, awards, or publications; and the rigor of the undergraduate educational program.

In addition, the school considers attributes that may contribute to assembling a diverse class. Special emphasis is placed on socioeconomic disadvantage in the evaluation. Also considered are work experience and career achievement, community or public service, career goals (with particular attention to the likelihood that applicants will represent those in underrepresented communities), significant hardships overcome, evidence of and potential for leadership, language ability, unusual life experiences, and any other factors (except those deemed inadmissible by the Regents or by other applicable law) that indicate the applicant may significantly diversify the student body or make a distinctive contribution to the school or the legal profession.

Residence and Unit Requirements
Candidates for the Juris Doctor degree must pursue resident law school study for six semesters and successfully complete 87 units, at least 65 of which must be earned in regularly scheduled law class sessions. The residence requirements may be satisfied as follows: six semesters in regular session in this school; or two semesters in regular session (or equivalent) in a school that is accredited by the American Bar Association, coupled with four semesters in regular session (or equivalent) in this school.

Every first-year student must take the full schedule of required courses; second- and third-year students are required to take a minimum of 12 units and may not take more than 16 units each semester. The second- and third-year curriculum is elective, except for a required course in professional responsibility and a substantial analytical writing requirement. In addition to the courses in the regular law school curriculum, students may take two courses for credit in other 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 the 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 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
together UCLA academic resources and the knowledge and experience of tribal leaders and knowledge-holders. The center serves as the home for the Tribal Legal Development Clinic and Tribal Appellate Court Clinic that involve students in projects such as constitution drafting, code development, and serving as law clerks for 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 policy makers.

**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

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School of Nursing
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310-825-7181
Student Affairs e-mail

The UCLA School of Nursing enjoys a national and international reputation for excellence in teaching, research, and clinical practice.

A strong scientific basis underlies the teaching of nursing practice, leadership, and research. Related clinical experiences are arranged within the Ronald Reagan UCLA Medical Center, its affiliates, and in selected community sites.

The bachelor’s degree program prepares nurses as generalists with special skills in primary, secondary, and tertiary prevention and care within a population-based context; leadership; and evidence-based practice. The master’s degree program prepares nurses as generalists in hospital-based care or for advanced nursing practice as nurse practitioners or clinical specialists in a variety of settings and specialized areas of health care. The PhD program prepares scholars who conduct original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied. The DNP program prepares nurses who are currently functioning at an advanced level of practice as nurse practitioners, clinical nurse specialists, or nurse administrators. The professional practice doctorate is designed to develop competencies for advanced clinical and leadership roles beyond the master’s degree necessary for the higher levels of patient safety and quality of patient care. Leadership, health system knowledge, and quality—as well as health care policy and critical content—are emphasized in the curriculum.

The school has an exceptionally qualified faculty; many members have national and international reputations for excellence. The school is consistently ranked high for its teaching and research programs. The innovative curriculum is responsive to national needs in health care and the diversity of the patient population. Graduates of the program are sought by health care institutions and educational programs, and many alumni have become leaders in the field. Education in this research university, with its full range of academic disciplines, offers a rich environment for preparation in the health sciences.

History and Accreditation

In 1949, the Regents of the University of California authorized the School of Nursing as one of the professional schools of the UCLA Center for Health Sciences. This action paved the way in 1950 for the opening of an undergraduate traditional program in nursing leading to the Bachelor of Science (BS) degree. In 1997, the original traditional BS program curriculum was revised to meet the educational needs of students who are registered nurses with Associate Degrees or diplomas in nursing. In 2006, the school reinstated a traditional/prelicensure BS program with admission at the freshman level. In 2010, the BS (Generic/Prelicensure) program was renamed to the BS (Prelicensure) program.

In 1951, a graduate program leading to the Master of Science (MS) degree in Nursing was established to prepare baccalaureate graduates for advanced practice nursing roles. In 1966, the Master of Nursing (MN) degree was established as an alternate to the MS degree, which was discontinued in 1969. In 1996, the master’s degree designation was changed from MN to Master of Science in Nursing (MSN), which is still awarded to graduates prepared as nurse practitioners and clinical nurse specialists. In 2006, the school launched the master's entry clinical nurse (MECN)/prelicensure option within the MSN degree program, which is designed for prelicensure students with bachelor’s degrees or higher education in another discipline.

In 1986, the Doctor of Nursing Science (DNSc) degree program was approved, and in 1987 the first doctoral students were admitted. In 1995, the doctorate degree designation was changed from DNSc to PhD in Nursing. In 2013, an en-route MS option was established within the
existing PhD program. In 2015, UCLA approved conversion of the DNSc degree to a PhD for former DNSc graduates. In 2018, the Doctor of Nursing Practice (DNP) program was approved. Graduates of the DNP program will be the leaders for the translation of research into practice. The DNP degree is designed to meet the dynamic needs of the national health care system to improve quality of care, promote patient safety, and reduce cost.

The prelicensure (BS and MECN) and advanced practice master’s programs are approved by the California Board of Registered Nursing. In 2011, the Commission on Collegiate Nursing Education (CCNE) accredited the existing bachelor’s and master’s degree programs for a term of 10 years, the longest award period that can be granted.

**Degrees**

The School of Nursing offers the following degrees:

- Nursing BS, MS, MSN, PhD
- Nursing Practice DNP

**Concurrent Degree Program**

- Nursing MSN/Management MBA

Admission is currently suspended to the Nursing and Management concurrent degree.

**Philosophy of the School**

The School of Nursing is guided by a philosophy that embodies the mission and goals of the University of California. The philosophy addresses nursing, the clients of nursing, and nursing students. The school is committed to an interdisciplinary learning environment.

Nursing encompasses clinical practice, education, research, consultation, leadership, management, and service to the profession; and to the local and global community. It involves individuals, families, groups, organizations, and communities as clients. The profession must consider the human and physical environments that interact with these clients who may have health conditions that range from wellness to illness. Nursing activities must therefore include health promotion and maintenance, intervention and treatment, rehabilitation and restoration, and palliation. At an advanced-practice level, nursing involves comprehensive health care that encompasses the responsibility and accountability for continuity of care across the health-illness spectrum.

Nursing research is both applied and basic; it has as its core actual or potential human responses to illness, and as its goal the development of nursing science. Guided by ethical standards that consider the perspectives of the client, the health care provider, and the larger society, nursing has a social mission that encompasses the right and responsibility to provide leadership in health policy and health care to all its clients regardless of disease status, gender, race, or culture.

People who receive client-centered nursing care are complex individuals who exist in relationship to others in their family and community. This complexity of person involves biological, behavioral, emotional, sociocultural, and spiritual dimensions. Each individual reflects a unique combination of these dimensions that interact dynamically with the environment. The clients of nursing are autonomous decision makers who have certain values and knowledge about themselves that are relevant and essential to successful health care outcomes. As a result, persons have a right and a responsibility to participate collaboratively in their care with the nurse and other health professionals.

Successful nursing students are active learners who bring unique gender, cultural, and ethnic life experiences to the professional practice of nursing. Students at all levels learn relevant theory, acquire practice skills, and are socialized into the profession of nursing. Increasing levels of complexity and sophistication of learning and socialization are expected of students in the different programs. Whether at the beginning practice, advanced practice, or scholar level, nursing students learn to apply knowledge, skills, and professional attitudes in their practice that may include education, administration, and research. While students have the right and responsibility to participate in their own learning, faculty members have the right and responsibility to structure the teaching/learning environment to facilitate learning. Individual academic counseling and a variety of one-on-one, small-group, and interactive learning formats assist students to meet program and individual learning goals.

**Undergraduate Admission**

New undergraduate students are admitted in fall quarter only. BS (Prelicensure) students are admitted at the freshman and junior levels. See Nursing in the Curricula and Courses chapter for additional admission requirements.

**Undergraduate Degree Requirements**

Students must satisfy UC requirements, school requirements, and major requirements for award of a Bachelor of Science degree.

**University Requirements**

The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in the Undergraduate Study chapter for details. Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.

**School Requirements**

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

**Unit Requirement**

Students must complete with a passing grade a minimum of 180 units. At least 83 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with advanced 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– 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

Writing II requirement for details. The course must be completed with a C grade or better (a C– or Passed grade is not acceptable).

If approved for general education (GE) credit, applicable Writing II 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.

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 quantitative reasoning requirement. No transfer student is admitted to the school without completing, with a C grade or better (C– grade is not acceptable), a college-level quantitative
reasoning course that Undergraduate Admission accepts as equivalent to those approved by the Faculty Executive Committee.

Approved courses include

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 2 (or any higher-number course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A-103B-103C, 105A-105B-105C, 189, 189HC, 195, 197, 199)
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Statistics 10, 12, 13

**General Education Requirements**

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

![GENERAL EDUCATION REQUIREMENTS](image)

**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.

SCHOOL OF THEATER, FILM, AND TELEVISION
Teri E. Schwartz, Dean
School of Theater, Film, and Television
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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-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).

Writing II. The Writing II requirement must be satisfied within the first six terms of enrollment by completing one course from a faculty-approved list of Writing II courses; see 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 may meet the foreign language requirement by scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin; presenting a UCLA foreign language proficiency examination score indicating competency through level three; or completing one college-level foreign language course equivalent to level three or above at UCLA with a grade of Passed or C or better.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language requirement.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Courses that may be used to fulfill this requirement are published on 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>
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<tr>
<td>Literary and Cultural Analysis</td>
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<tr>
<td>Philosophical and Linguistic Analysis</td>
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<td>Visual and Performance Arts Analysis</td>
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<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>
<th>Foundations of Society and Culture</th>
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<tbody>
<tr>
<td>Historical Analysis</td>
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<tr>
<td>Social Analysis</td>
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<td>Third course from either subgroup</td>
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<td>Total = 15 units minimum</td>
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<tr>
<th>Foundations of Scientific Inquiry</th>
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<tbody>
<tr>
<td>Life Sciences</td>
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<tr>
<td>Physical Sciences</td>
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<td>Total = 8 units minimum</td>
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| Total GE | 10 courses/48 units minimum |

A course taken to meet the Writing II requirement may not also be applied toward a GE requirement.
School of Theater, Film, and Television, Director of Student Services, Box 951622, Los Angeles, CA 90095-1622.

**Intersegmental General Education Transfer Curriculum**

Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the School of Theater, Film, and Television GE requirements.

**Department Requirements**

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

**Preparation for the Major**

A major requires completion of a set of courses known as preparation for the major, which should be completed before upper-division work is undertaken. Each department sets its own preparation for the major requirements; see the Curricula and Courses chapter.

**The Major**

A major is composed of no fewer than 56 units, including at least 36 units of upper-division courses.

Students must complete their major with a scholarship grade-point average of at least a 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.
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310-825-1742
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Professor
Timothy C. Reynolds, MBA, MA, Colonel
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Jonathan R. Liscombe, MA, Major
Kevin Piacencia, BS, Captain

Scope and Objectives
In accordance with the National Defense Act of 1920 and with the concurrence of the Regents of the University of California, a unit of the Army Senior Division Reserve Officers’ Training Corps (ROTC) was established on the Los Angeles campus of the University of California in July 1920. Navy and Air Force units were established in 1938 and 1949 respectively.

This voluntary training in the Air Force ROTC program allows students to qualify for an officer’s commission in the Air Force while completing their college education. The ROTC curriculum is not considered 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 test, performance during an officer board interview, and a physical fitness test. Students selected for summer field training are given meals, quarters, clothing, and travel and incidental expenses. Subjects covered at field training include junior officer training, aircraft and aircrew orientation, career orientation, survival training, base functions, Air Force environment, and physical training.

POC participation requires three hours of academic class and two hours of leadership laboratory each week during the academic year. Students enrolled in the POC incur a military obligation and are paid a monthly stipend during the academic year. Graduation and successful completion of the POC leads to a commission as a second lieutenant. Cadets then report to one of the challenging assignments in the Air Force.

Aerospace Studies
Lower-Division Courses
Freshman-Year Courses
A. Leadership Laboratory, (No credit) Laboratory, three hours. Mandatory for and limited to Air Force ROTC cadets. Provides cadets with practical command and staff leadership experiences through performance of various tasks within framework of organized cadet corps. As integral part of aerospace studies curriculum, provides experiences designed to develop leadership potential and serves as orientation to active duty. P/NP grading.

1A-1B-1C. 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 airmen, 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.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics 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 or letter grading.

Upper-Division Courses
130A-130B-130C. Air Force Leadership Studies, (4-4-4) Lecture, three hours. Requisites: courses 1A, 1B, 1C, 20A, 20B, 20C. Designed to provide cadets with leadership overview. Basic leadership skills for cadets beginning leadership role in detachment. Lessons on military relationships and rules that military members must follow when interfacing with enlisted members and officers. Continuation of advanced skills and ethics training in preparation for becoming officer and supervisor. Introduction to variety of leadership topics in preparation to be effective leaders. P/NP or letter grading.

140A-140B-140C. National Security Affairs/Preparation for Active Duty, (4-4-4) Lecture, three hours. Requisites: courses 1A, 1B, 1C, 20A, 20B, 20C. Study of national security processes, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics focus on military as profession, officership, military justice, civilian control of military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis on refining communication skills. P/NP or letter grading.

197. Individual Studies in Aerospace Studies, (2 or 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.
African American Studies
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African American Studies

Scope and Objectives

The Department of African American Studies offers a Bachelor of Arts degree, an undergraduate African American Studies minor, a Master of Arts degree, and a concurrent degree program (African American Studies MA/Law JD). A major or minor in this field offers a broadening of cultural experiences and perspectives for those seeking more information about African Americans and the African diaspora. Career-wise, all students profit from African American Studies courses in an era when employers and academic institutions are actively seeking those with multicultural and interdisciplinary skills and backgrounds.

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

Undergraduate Study

African American Studies BA

Learning Outcomes

The African American Studies major has the following learning outcomes:

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

Preparation for the Major

Required: Two courses from African American Studies M5, 6, M10A.

Transfer Students

Transfer applicants to the African American Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one African American Studies or civilizations of Africa course or equivalent.

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

The Major

Required: Twelve upper-division courses as follows: (1) two history and/or literature courses selected from African American Studies M104A through M104D, M150D, M158A through M158E, M179A, (2) two upper-division breadth courses from any of the following departments or programs: American Indian Studies, Asian American Studies, Chicana and Chicano Studies, or Gender Studies, and (3) a concentration of five courses in one of the following tracks and three courses in the other:


No more than 8 graded units of African American Studies 195, 197, 198, and 199 may be applied toward the major.

Students are encouraged to engage in a culminating activity, such as an internship, independent study, honors thesis, service learning course, Center for American Politics and Public Policy program, University of California Center Sacramento program, Education Abroad Program, or other African American studies-related project or performance course.

Honors Program

African American Studies majors with grade-point averages of 3.5 or better are eligible for the honors option that requires the completion of a senior thesis under the guidance of an African American Studies faculty member. Students must take African American Studies 195 (independent study course) with an approved professor who oversees the thesis requirement. For more information, contact the student affairs officer in the department.

African American Studies Minor

The African American Studies minor is designed for students who wish to augment their major program of study with courses from various disciplines germane to African American studies.

To enter the minor, students must be in good academic standing (2.0 grade-point average), have completed 45 units, and file a petition with the African American Studies student affairs officer.

Required Lower-Division Courses (9 to 10 units): Two courses from African American Studies M5, 6, M10A.

Required Upper-Division Courses (20 to 25 units): Five upper-division African American Studies courses.

No more than 4 graded units of African American Studies 195, 197, and 199 may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied 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 (Arts and Humanities MA/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 and meaning of blackness in relation to class, gender, and sexuality; essential role of African people in development of capitalism, liberalism, and democracy; what various disciplinary lenses and epistemologies (history, literature, sociology, geography, cultural studies, political theory, philosophy, etc.) reveal about experiences of black people in modern world. Key thinkers and ideas from across humanities and social sciences are highlighted. P/NP or letter grading.

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 Afro-American thinkers 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 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 lens of student-initiated and student-run programs, efforts, activities, and services. Focus on popula-tions 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, 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 lowering lecture course as 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
M102. Culture, Media, and Los Angeles. (6) (Same as Asian American Studies M160 and Honors Colle-gium M102.) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its impact on culture and politics in local and global environments, specifically in Los Angeles; issues of represen-tation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

M103A. African American Theater History: Slavery to Mid-1800s. (5) (Same as Theater M103A.) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from slavery to mid-1800s. Letter grading.

M103B. African American Theater History: Minstrel Stage to Rise of African American Musical. (4) (Same as Theater M103B.) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from minstrel stage to rise of African American musical. Letter grading.

M103E. Modern African American Drama: Harlem Renaissance to Black Arts Movement. (4) (Same as Theater M103E.) Lecture, three hours. Survey and examination of African American drama of the 1920s to 1960s; including those of race and racial formation, gender and sexuality, capitalism and labor exploitation, and nationalism and state repression. Application of historical context as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

M104A. Early African American Literature. (5) (Same as English M104A.) Lecture, four hours; dis-cussion, one hour (when scheduled). Enforced requisi-tion: English Composition 3 or 3H. Introductory survey of African American literature from 18th century through World War I, including oral and written forms (folktales, spirituals, sermons, fiction, poetry, essays), by authors such as Phillis Wheatley, Frances Harper, Frederick Douglass, Harriet Jacobs, Charles Chesnutt, Booker T. Washington, and Pauline Hop-kins. P/NP or 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 requisites: English Composition 3 or 3H. Introductory survey of 20th-century African American literature from New Negro Movement of post-World War I period to 1960s, including oral materials (ballads, blues, speeches) and fiction, poetry, and essays by authors such as Jean Toomer, Claude McKay, Langston Hughes, Nella Larsen, Zora Neale Hurston, Richard Wright, Ann Petry, James Baldwin, Gwendolyn Brooks, and Ralph Ellison. 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 requisites: 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, Nikki Giovanni, 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 requisites: 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, James Baldwin, 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 requisites: English Composition 3 or 3H. Variable topics lecture course that provides opportunity to cover African American literature from wide range of theoretical, historical, formal, and thematic perspectives. Topics may include African auto-biography, 20th-century African American literature and film, black diaspora literature, postmodern Afri-can American fiction, Afro-Futurism, and African American literature. May be repeated with a topic of instructor change. P/NP or letter grading.

M105J. Contemporary Black Theater: Modern Civil Rights Era to Black Lives Matter and Beyond. (4) (Same as Theater M105J.) Lecture, three hours. Exploration of black theatrical re-volution of 1960s until today. Exploration of social and histor-ical implications of work, and aesthetic experimenta-tion 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 ra-cial and economic contexts. From Reconstruction Era in Afri-can diaspora. Drawing on interdisciplinary black studies scholarship of range of writers that may include Ida B. Wells, Carter G. Woodson, Claudia Jones, James Baldwin, W.E.B. Du Bois, Frantz Fanon, Steve Biko, Frantz Fanon, Walter Rodney, George Jackson, Angela Davis, Jacob H. Carruthers, Stuart Hall, and Sylvia Wynter, to understand function of representa-tion, communication, and ideology in creation of social meaning and role of literature, media, education, and popular culture in organization of black consciousness and exercise of power. P/NP or letter grading.

105B. Issues in Pan-African Biography and Autobi-ography. (4) (Same as Theater M105B.) Lecture, four hours; discussion, one hour. Critical reading of biographical and autobiographical texts to develop understanding of narratives and autobiography. Topics include those of race and racial formation, gender and sexuality, capitalism and labor exploitation, and nationalism and state repression. Application of histo-ry to critical readings. Topics include lives and family history through researching and writing short autobiographical text. Students gain experience in conducting interviews and oral histories and genea-logical and archival research. P/NP or letter grading.

106A. Africa and World. (4) Lecture, four hours; dis-cussion, one hour. Introduction to historical and con-temporary Africa, with focus on modern history, poli-tics, and culture. Survey of key issues impacting Africa today and in future. Exploration of political dimensions on independence, geopolitics of aid and development, cultural transmission and relationship with African di-

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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, threat to order and civil society, possibility of integration and racial harmony, black liberation and nationalism, conservatism, and hip-hop culture, with emphasis on musical and verbal qualities, philosophical and political ideologies, gender representation, and influences on cinema and popular culture. P/NP or letter grading.

M109. Women in Jazz. (4) Same as Ethnomusicology M110A. 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.

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 impact on 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. 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 career; examination of his efforts in 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 composers/arrangers Billy Strayhorn and musicians Johnny Hodges, Cootie Williams, and Mercer Ellington. P/NP or letter grading.

CM124. African American Music in California. (4) Same as Ethnomusicology CM124.) 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.

CM133. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Agency. (4) (Same as Education CM163.) Lecture, four hours; discussion, one hour. Exploration of policies and practices, art and activism, and other forms of agency engaging in social movements. Concurrently scheduled with course CM213. P/NP or letter grading.

M114C. African American Political Thought. (4) Same as Labor and Workforce Studies M114C and Political Science M114C.) Lecture, four hours; discussion, one hour (when scheduled). Intensive introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been applied and interpreted by African Americans. Debates and conflicts in black political 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.

M118. Student-Initiated Retention and Outreach Issues in Higher Education. (4) Same as Asian 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 UCLAS as case. May be repeated twice for credit. Letter grading.

M120. Race, Inequality, and Public Policy. (4) (Same as History M120.) Lecture, three hours; discussion, one hour. Background in economics, sociology, or urban studies preferred but not required. Survey course to examine major debates and current controversies concerning public policy responses to social problems in urban America. Letter grading.

M124. Comparative Racialization and Indigeneity. (4) Same as Asian American Studies M124.) Lecture, three hours. Exploration 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- phire, 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 who have produced works that are central to a discussion of the art of the black diaspora and its historical and political context. P/NP or letter grading.

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 Columbus Ex- position to 1963 March on Washington, with focus on social, political, and cultural engagement, as well as in codification of modern black life in U.S. Concurrently scheduled with course CM235A. P/NP or letter grading.

140. Radical Black Imaginaries: Politics, Identity, and Struggle. (4) Lecture, four hours. Exploration of 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 experiences within the U.S. from antebellum 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 and agency? How have black women 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 experiences within four hours; discussion, one hour (when scheduled). Intensive introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been applied and interpreted by African Americans. Debates and conflicts in black po- power. Investigation of black women’s intellectual his- tory, including their cultural productions. Letter grading.

M142. Race, Gender, and Punishment. (4) Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M142.) Same as Public Policy M142.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level political science course or one upper-division course in women’s studies, from history, psychology, or sociology. Requisite: Political Science 40. Designed for juniors/seniors. Emphasis on dynamics of minority group politics in U.S., touching on conditions of black and ethnic groups, with black Americans being primary case for analysis. Three primary objectives: (1) to provide de- scriptive information about social, political, and eco- nomic conditions of black community, (2) to analyze important political issues facing black Americans, (3) to sharpen students’ analytical skills. P/NP or letter grading.


M150D. Recent African American Urban History: Funk Music and Politics of Black Popular Culture. (4) (Same as History M150D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of black women's experience as music emerged in its late 1960s and reached popular high point, in black cul- ture, during 1970s. Funk, fusion of gospel, blues, jazz, rhythm and blues, soul, rock, and many other musical styles, offering students unique window into recent African American history. P/NP or letter grading.

M154C. Black Experience in Latin America and Caribbean I. (4) Same as Political Science M154A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Cul- ture, history, politics, and identity of African Ameri- canians in Spanish and Lusophone Caribbean, South America, and Central America. Exploration of issues of identity in context of Afro/Latino migration to U.S. P/NP or letter grading.

M154D. Black Experience in Latin America and Caribbean II. (4) Same as Political Science M154B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Ex- amination of issues regarding race and ethnicity in Latin America, with emphasis on comparisons to U.S. and Latin America. Covers populations of Af- rican and indigenous origins, with emphasis on former. P/NP or letter grading.

M158A. Comparative Slavery Systems. (4) (Same as History M150A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/sen- iors. Examination of slavery experiences in various New World slave societies, with emphasis on outlining similarities and differences among legal status, treat- ment, and slave cultures of African, Latin Ameri- can, and Latin American slave societies. P/NP or letter grading.
M150B-M150C. Introduction to Afro-American History. (4–4) (Same as History M150B-M150C.) 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.

M150E. African American Nationalism in First Half of 20th Century. (4) (Same as History M150E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical examination of American search in first relationship for national/group cohesion through collectively built institutions, organizations, organized protest movements, and ideological self-definition. P/NP or letter grading.

M159P. Constructing Race. (4) (Same as Anthropology M144P and Asian American Studies M168.) Lecture, three hours. Examination of race, socially constructed category, from anthropological perspectives. 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 theoretical and practical understanding of worker center movement, with focus on historical factors that have led to emergence and growth of worker centers. Role of worker centers in promoting multiracial and multiracial campaigns for workplace and economic justice. Transnational cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

M170A. Diasporic Nonfiction: Media Engagements with Memory and Displacement I. (4) (Same as Chicana and Chicano Studies 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 the past 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 biographical experience 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 requisite: course M170A. Students complete 20- to 30-minute video projects about issues or experiences central to everyday lives of collective diasporic peoples. They learn to propose, record, edit, and distribute one socially engaged nonfiction video and draw on their experiences from course M170A. Discussion, music, performance, and screening events, 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. Designed for juniors/seniors. Impact of social, psychological, political, and economic forces which impact on interpersonal relations 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, discussions, 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 social movements as a way to 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 evolutions of African American community by focusing on evolution of differences—specifically, class differences—that have minimized black progress when compared with other races and cultures in the world. 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, race relations have been inextricably 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 developing 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 establishing and eliminating slavery, major Supreme Court decisions before and during civil rights era, 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 contemporary legal issues impacting on the higher education experience. Appointment by University. Opportunity for students to connect theories of education, race, and economic forces which impact on everyday lives of Afro-American workers and their families. P/NP or 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 de-colonization, development and underdevelopment, race-making institutions and evolution of race relations, nationalism and migration. P/NP or letter grading.

179A. Topics in African American Literature. (5) (Same as English M191A.) Seminar, three or four hours. Enforced requisite: course English Composition 3 or 3H. Variable specialized studies course in African American literature. Topics may include Harlem Renaissance, African American poetry. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182A. Language, Literacy, and Human Development Ethnography (2) (Same as Education M182A.) Fieldwork, three hours. Enforced corequisite: course English 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.

182B. Culture, Gender, and Human Development Ethnography (2) (Same as Education M182B) Fieldwork, three hours. Enforced corequisite: course English 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.

182C. Culture, Communications, and Human Development Ethnography (2) (Same as Education M182C) Fieldwork, three hours. Enforced corequisite: course English 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.

183A. Language, Literacy, and Human Development Ethnography (2) (Same as English M183A.) Fieldwork, six hours. Enforced corequisite: course English 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.

183B. Culture, Gender, and Human Development Ethnography (3) (Same as Education M183B) Fieldwork, six hours. Enforced corequisite: course English 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.

183C. Culture, Communications, and Human Development Ethnography (3) (Same as Education M183C) Fieldwork, six hours. Enforced corequisite: course English 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 concerned with promoting civil rights of racial minorities, with focus on education, voting, and housing. Why did such policies initially arise? How have they since developed? How effective have they been in closing race gap? Provides strong 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 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,
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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 juniors/seniors. Presentation of faculty member. May be repeated for credit. Concurrently scheduled with course C259E. Letter grading.

M194A. Language, Literacy, and Human Development Research Group Seminars (5) (Same as Education M194A.) Seminar, three hours; laboratory, two hours (when scheduled). Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and language. May be taken in dependence for credit. Letter grading.

M194B. Culture, Gender, and Human Development Research Group Seminars (5) (Same as Education M194B.) Seminar, three hours; laboratory, two hours (when scheduled). Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and gender. May be taken independently for credit. Letter grading.

M194C. Culture, Communications, and Human Development Research Group Seminars (5) (Same as Education M194C.) Seminar, three hours; laboratory, two hours (when scheduled). Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and gender. May be taken independently for credit. 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 juniors/seniors. Internship credit requires 100 hours of supervised internship in community agency or business. Students meet on regular basis with instructor and prepare periodic reports of their experience. Eight units may be applied toward major. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

M195CE. Comparative Approaches to Community and Corporate Internships. (4) Same as American Indian Studies M195CE, Asian American Studies M195CE, Chicana and Chicano Studies M195CE, and Gender Studies M195CE.) Tutorial, one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting as coordinated through Center for Community Learning. Comparative study of race, gender, and digenity in community and corporate workplace dynamics. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty selects and supervises student coordinator construct series of reading assignments that examine issues related to intern site. Individual contract with supervising faculty member required. P/NP or letter grading.

196. Research Apprentice in Afro-American Studies. (4) Tutorial, three hours. Limited to juniors/ seniors. Entry-level research apprenticeship under guidance of faculty mentor affiliated with Afro-American Studies major or minor. Short-term research project 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 required. 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. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Analysis of subject matter required. 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 supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Afro-American Studies. (2 to 4) Tutorial, to be arranged with faculty member who directs study. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Supervised individual research or investigation of large project under guidance of faculty mentor. Culminating paper or project required. Eight units may be applied toward major requirements. May be repeated for a 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 M200C) Seminar, three hours. Evaluation of social, cultural, and historical forces that affect stabilization, socialization, and interaction in black intimate relationships, beginning with theoretical framework from biological, sociological, and psychological analytic of economic and other expectations for partners in cohabiting and other types of unions. Examination of family life for both middle-class and low-income populations. Exploration of black sexuality, including images of hyper-masculinity and femininity within black body and critical interrogation of notions of blackness and authenticity in racial identification. Contribution to greater understanding of black intimate relationships in different contexts, including lesbian and gay identities, Caribbean and other ethnic identities, and interracial intimacies. S/U or letter grading.

M200D. African American Women’s History. (4) Seminar, four hours. Historical examination of black women’s experiences in U.S. from antebellum era to present. Exploration of key themes, including gender formation, social and collective action, gender and sexual violence, reproduction, and role of law. How have intersecting forms of oppression impacted black women’s historical lives? How is difference recognized and embodied in intersecting and overlapping ideologies of race and gender? How do historians uncover black women’s historical lives and what are the challenges to such discoveries? Examination of black women’s individual and collective struggles for freedom from racism, sexism, and heteropatriarchy as well as black women’s participation in and challenge to social movements, including suffrage, women’s liberation movement, and Black Women’s Movement. S/U or letter grading.

M200E. Studies in Afro-American Literature. (4) (Same as English 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 background of Afro-American writing. May be repeated for credit. S/U or letter grading.

M200G. Race, Class, and Gender: Constructing African American Black Womanhood and Manhood America. (4) (Same as Sociology M231) Seminar, four hours. Race, class, gender, and sexual identity are axes of stratification, identity, and experience. They are not merely identities but structural locations that are often taken for granted and rarely confronted, challenged, or contested. Many times one or more of these go unrecognised. Exploration of multiple and intersecting ways through which shape society, individual life chances, and daily social interactions for African Americans. Examination of race, class, and gender inequalities as individual aspects of social life. How race, class, gender, and sexual identity shape and inform the social institutions including educational institutions, economy and family, within context of experiences of black women and black men in contemporary United States. S/U or letter grading.

200G. Politics of Recent African American Music and Popular Culture. (4) Seminar, four hours. Predominant trend in research in African American music highlights intersection of music with social and political movements, cultural institutions, economy, and family, within context of experiences of black women and black men in African American communities. May have engaged questions pertaining to intra-African American politics of community: grappling with issues such as appropriation, economic exploitation, male privilege, and marginalization of creative artists. Examination of critical nexus between music and myriad of issues unaddressed by this trend in scholarly study of black music. Letter grading.

M202. Critical Theory of African Diaspora. (4) (Same as Anthropology M202M) Seminar, four hours. Introduction to variety of ideas that underlie articulation of construct of African diaspora. Structured through understanding of African diaspora as historical formation, with focus on dissonances and disjunct intellectual project. Exploration of ways scholars have conceptualized and theorized diasporic condition of black peoples. Consideration of who belongs to African diaspora community, and how this community is imagined. S/U or letter grading.


CM235A. African American Art before 1900. (4) (Formerly numbered CM235D) (Same as Art History CM235A) Lecture, three hours. Detailed inquiry into work to circa 1900 of African American artists whose work exhibits the mode insightful and mandatory about major features of African American life and society. Concurrently scheduled with course CM235A. S/U or letter grading.

CM235B. African American Art, 1900 to 1963, (4) (Formerly numbered CM235E) (Same as Art History CM235B) Lecture, three hours. Detailed inquiry into work of African American artists from 1900 to 1963, with context of social, political, and cultural engagement, as well as in codification of modern black life in U.S. Concurrently scheduled with course CM235B. S/U or letter grading.

CM240. Assessment and Treatment of African American Families. (3) (Same as Psychiatry M240) Seminar, two hours. Designed for graduate students. Course aids mental health professionals and trainees in evaluation and treatment of African American fami-
ground, and economic status. Didactic presentations by instructors and invited guests form basis for supervised evaluation and case management with African American children and families. Letter grading.

241. Special Topics in Afro-American Studies. (4) Lecture, four hours; discussion, one hour. Intensive research and study of major themes and issues in various areas of Afro-American studies. May be repeated for credit with consent of graduate adviser. S/U or letter grading.

**M256. Topics in African American Art.** (4, same as Art History M256) Seminar, three hours. Requisite: course CM235A or CM235B. Topics in African American art from 18th century to present. May be repeated for credit with consent of graduate adviser. S/U or letter grading.

270A. Survey of Afro-American Research. (4) Seminar, three hours. Overview of research methodologies in humanities and social sciences, with firsthand reports from faculty in various fields. Introduction to research in and related to African-American studies and application of such research. Letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. Letter grading.

596. Directed Readings and Tutorials. (4) Tutorial, to be arranged. Provides students with umbrella under which they can pursue specialized interests from which there is insufficient demand to warrant offering formal courses. S/U or letter grading.

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

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

**AFRICAN STUDIES**

Interdepartmental Program

College of Letters and Science

10373 Bunche Hall
Box 9511487
Los Angeles, CA 90095-1487

African Studies
310-206-6571

Program e-mail

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Edith Mukudi Omwami, PhD (Education)
Jemima Pierre, PhD (African American Studies, Anthropology)
Allen F. Roberts, PhD (French and Francophone Studies, World Arts and Cultures/Dance)
Paula A. Tavrow, PhD (Community Health Sciences)
Dominic R. Thomas, PhD (Comparative Literature, French and Francophone Studies, Germanic Languages)
William H. Worger, PhD (History)

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 professionals themselves. Letter grading.

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

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

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate African studies students. May be repeated, but only 4 units may be applied toward minimum graduate course requirement. S/U or letter grading.

597. Preparation for MA Comprehensive Examination. (4) Tutorial, to be arranged. Limited to graduate African studies students. Normally taken only during term in which student is being examined. May not be applied toward minimum graduate course requirement. S/U grading.

598. Research for and Preparation of MA Thesis. (4) Tutorial, to be arranged. Limited to graduate African studies students. Normally taken only during term in which student intends to complete MA thesis. May not be applied toward minimum graduate course requirement. S/U grading.

**AMERICAN INDIAN STUDIES**

Interdepartmental Program

College of Letters and Science

3220 Campbell Hall
Box 951548
Los Angeles, CA 90095-1548

American Indian Studies
310-825-6541

Program e-mail

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Shannon E. Speed, PhD (Anthropology, Gender Studies)

Scope and Objectives

Because UCLA possesses a substantial number of faculty members in the humanities and social sciences engaged in teaching and conducting research on American Indians, the nation’s first interdisciplinary MA program in American Indian Studies was established here. The Bachelor of Arts degree and the undergraduate American Indian Studies minor provide a general introduction for students who anticipate advanced study at the graduate level in American Indian studies, ethnic studies, and the traditional disciplines or careers in research, administration, public service, and community service related to American Indian communities.

The Master of Arts program draws primarily on existing courses in the participating departments, where research and research methodologies are of primary concern. Students are exposed to Indian-related research in a number of different disciplines; demonstration of research skills is required. Students graduate with the training they need to teach Native American studies or to serve in an administrative capacity in Indian programs or organizations. The MA program ranks among the top Indian studies programs in the country.
Undergraduate Study

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

American Indian Studies BA

Capstone Major

The American Indian Studies BA program is designed to offer a coherent and comprehensive curriculum in American Indian cultures, societies, and contemporary issues in addition to valuable background in more traditional disciplines such as anthropology, art history, economics, education, history, law, linguistics, literature, sociology, and world arts and cultures. Students acquire a critical knowledge of the concepts, theories, and methods that have produced knowledge about American Indians in the traditional disciplines. Students are encouraged to develop a concentration—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 in Native American language, history, and contemporary society 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 140, 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 138P, 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-198C, 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, history, political science, sociology, and theater. To enter the minor, students must be in good academic standing (2.0 grade-point average), have completed 45 units, and file a petition at the American Indian Studies Center, 3220 Campbell Hall. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

Required Lower-Division Course (5 units): American Indian Studies M10 with a grade of C or better.

Required Upper-Division Courses (28 units): Seven courses selected from the following: (1) one American Indian languages and communication systems course (Anthropology 155 or Linguistics 114); (2) three history and social sciences courses from American Indian Studies C120, C121, C122SL, C130, 140, 158, C170, C175, C178, Anthropology 1130, 113R, 114P, 114Q, 114O, 158, Gender Studies 130, History 149A, 149B, 157B, Sociology M161; (3) three humanistic 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 interdepartmental adviser before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

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

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

American Indian Studies
Lower-Division Courses
M10. Introduction to American Indian Studies. (5) (Same as World Arts and Cultures M232) 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 participation in Native American 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 critical thinking about topics 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. As assigned 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 instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research of other lower-division courses, 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 of courses (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
M118. Student-Initiated Retention 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; activity, two hours per week. Limited to students in lower-division programs in the retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLA as case. May be repeated twice for credit. Letter grading.

C120. Working in Tribal Communities: Introduction. (4) Lecture, four hours. Through readings, discussion, and Native guest lecturers, students learn to participate with Native American communities engaged in political, social, and cultural processes of change and preservation. Development of proposal for Native nation-building project. Concurrently scheduled with course C220, Letter grading.

C121. Working in Tribal Communities: Preparing for Fieldwork. (4) Lecture, four hours. Through readings, discussion, Native guest lecturers, and project participation, introduction to rules of conduct and skills required for students. Designed as preparatory community service projects for Native American communities and organizations. Concurrently scheduled with course C221, Letter grading.

C122SL. Working in Tribal Communities: Service Learning. (4) Seminar, one hour; fieldwork, four hours. Enforced requisite: course C121. Recommended: course C120. Participation in community service learning project within Native American communities as designed by student, mentor and supported by faculty members, other students, and project directors toward completing as-signed service learning tasks and contributing to project activities. May be repeated with consent of instructor. Concurrently scheduled with course C222SL, Letter grading.

C130. California Indian Strategies for Contempo- rary Challenges. (4) Seminar, three hours. Through readings, discussion, and Native guest lecturers, introduction to fundamental concepts and history of federal Indian law and policy, Investigation of contemporary policies and legal issues and exploration of Native responses to policy and law. Letter grading.

C145. Contemporary Indigenous Nations. (4) Seminar, three hours. Introduction to topics on contemporary indigenous nations, including social movements, social and cultural change and continuity, nation building, law and justice, economic development, education and socialization, international relations, comparative policy, colonialism, migration, national and social identities, and other issues and social and cultural processes. Cross listed as distinct from ethnicity, race, class, and nation, with focus on indigenous communities that have maintained self-government, territory, and culture. Investigation and search for analytical and policy patterns. Understanding and knowledge about current conditions and social and cultural processes of indigenous nations. Concurrently scheduled with course C245. Letter grading.

158. Nation Building. (4) Lecture, three hours; fieldwork/research, nine hours. Limited to junior/senior American Indian Studies majors. Examination of historical and interplay of federal policies with tribal cultures that have shaped political, economic, and social processes of American Indian tribal nations. Current developments within Indian nations, including restructuring government, developing economies, and asserting cultural sovereignty to be subject of research, study, and required community-based projects. Letter grading.


M162. Language Endangerment and Linguistic Revitalization. (4) (Same as Anthropology M156.) Lecture, three hours; activity, one hour. Requisites: course M10, Anthropology 4. 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 indigenous and tribal languages. Since loss of such languages means both reduction of cultural as well as linguistic diversity, many affected communities have engaged in various language revitalization activities. Examination of some diverse strategies that have been attempted, including immersion, language and culture classes, master-apprentice, interactive multimedia, mass media approaches, and perform ap proaches. Evaluation of effectiveness of these measures and of very imagery used to discuss language endangerment. P/NP or letter grading.

CM168. Healthcare for American Indians. (4) (Formerly numbered C168.) (Same as Health Policy M168.) Lecture, two hours; discussion, one hour. Identification of traditional health beliefs, health practices, and healthcare services among 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. Concurrently scheduled with course C268. Letter grading.

C170. Culture and Community. (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 interdepartmental chair. Concurrently scheduled with course C270. Letter grading.

C175. Cultures of Native Southern California. (4) Lecture, three hours. Introduction to Southern California indigenous societies through readings, 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 C275. Letter grading.

C178. California Experiences in Native Cultural Resource Management. (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 of resource management and history of these laws, examination of series of cases from California sites. Concurrently scheduled with course C278. Letter grading.

C180. Introduction to and Practicum in Native American Languages. (Lecture, three hours; laboratory, one hour. Development of ability to converse, read, and write at elementary level in Native American languages. Practice of 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 films, historical, 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 Native American Literature; Social Science Perspectives of American Indian Life; Law and American Indian; History of American Indians (cultural area); Dance and Music of American Indians (cultural area); American Indian Policy. Consult Schedule of Classes for topics and instructors. May be repeated twice for credit. Letter grading.

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 eight units. 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 eight units. Honors contract required. Honors content noted on transcript. Letter grading.

195. Community Internships in American Indian Studies. (4) Tutorial, two hours; fieldwork, eight hours. Restricted to American Indian majors. 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. Comparative Approaches to Community and Corporate Internships. (4) (Same as American Studies M195CE, Asian American Studies M195CE, Chicana and Chicano Studies M195CE, and Gender and Women Studies M195CE.) Tutorial, one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Exploration of topics of race, gender, and indigeneity in relation to contemporary workplace dynamics. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator conduct interview of reading assignments that examine issues related to internship site. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in American Indian Studies. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged with faculty member and student. Assigned readings and tangible evidence of mastery of 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 enforced requisite to 198B, which is enforced requisite 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. Culuminating 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 of comprehensive examination of eight upper-division major courses. Limited to senior American Indian Studies majors. Faculty members help students relate their course-derived academic experience and research experience to historical, social, and political developments involving 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 Peoples. (4) (Same as History M200W.) Lecture, 90 minutes; seminar, 90 minutes. Introduction to cultural histories of North American Indians and review of Indian nations concepts of historical approach to content and methodologies related to Indian past that is interdisciplinary and multicultural in its scope. Letter grading.

M200B. Cultural World Views of Native America. (4) (Same as English M266.) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms—dance, art, song, religion and mythologies of Native American societies, as these traditional and tribal contexts have been translated into contemporary literary texts (fiction, poetry, essay, and drama). Survey, from secondary sources, of interdisciplinary methodologies. 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, building on Native American back- ground presented in course M200A and cultural and expressive experience of American Indians presented in course M200B. Letter grading.

M202D. Economic Principles and Economic Development in Indigenous Communities. (4) (Same as Public Policy M270.) Seminar, two hours; discussion, one hour. Limited to graduate students. Introduction to basic economic concepts, and to the application to issues of economic development in indigenous communities. Coverage of microeconomic and macroeconomic aspects of economic development using current and existing 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 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. Development and assessment of research and exploration of feasibility of re- searching 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 proposal for fieldwork or senior honors project. Concurrently scheduled with course C121. S/U or letter grading.

C222SL. Working in Tribal Communities: Service Learning. (4) Seminar, one hour; fieldwork, four hours. Enforced requisite: course C221. Recommended: course C220. Participation in community service learning experience in tribal communities and organizations where students are mentored and supported by faculty members, other students, and project directors toward completing an assigned service learning task and contributing to project activities. May be repeated with consent of instructor. Concurrently scheduled with course C122SL. S/U or letter grading.

228A-228B. Tribal Legal Systems. (228A: 3 or 4/228B: 1 or 2) Seminar, two hours. Course 228A is enforced requisite to 228B. Study of traditional and contemporary legal systems of Native American tribal nations. Emphasis on legal case examination of tribally recognized systems, including Navajo, Cherokee, Iroquois, and Hopi, with emphasis on diversity of tribal legal regimes, comparisons with Anglo-American legal system, changes in tribal legal structures and methods of contact with non-Indians, and relationships between tribes’ legal systems and other aspects of their cultures, such as religion and social structure. Independent research paper with tentative title and historic topic required. Concurrently scheduled with Law 528. In Progress (228A) and S/U or letter (228B) grading.

C230. California Indian Strategies for Contemporary Challenges. (4) Seminar, three hours. Through readings, discussion, and Native guest lecturers, introduction to contemporary issues and processes of self-directed social change and political, cultural, legal, and economic processes of 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 themselves 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 culture 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 hours. Introduction to topics on contemporary indigenous nations, including social movements, social and cultural change and continuity, nation building, law and justice relations, economic development, and state and federal legislation. Comparative policy, colonialism, migration, national and social identities, and other issues and social-cultural processes, seen as distinct from ethnicity, race, and gender, with a focus on indigenous communities that have maintained self-government, territory, and culture. Investigation and search for analytic and policy patterns that give greater understanding to knowledge about current conditions and social and cultural processes of indigenous nations. 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, primarily in the U.S., but elsewhere also. Discussion of theories of change, comparative methodologies, and case materials. Letter grading.

265. Federal Indian Law I. (4 or 5) Lecture, three to four hours. Overview of federal Indian law, sovereign rights of Indian tribes, and the relationship of federal Indian law to federal statutes, such as Indian Child Welfare Act and Indian Gaming Regulatory Act, addressed. In Progress (M265A) and S/U or letter (265B) grading.

M267A-267B. Federal Indian Law II. (1 to 8 each) (Same as Law M382.) 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. In Progress (M267A) and S/U or letter (267B) grading.

C276. Health Law 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 CM168, S/U grading.

C270. California Indian History. (4) Lecture, four hours. Introduction to overview of California Indian history, specific tribal community histories, and/or contemporary California Indian history through readings, discussions, and Native lectures. May be repeated for credit with topic and consent of interdepartmental chair. Concurrently scheduled with course C170, S/U or letter grading.

M272. Seminar: Cultural Property Law. (3 or 4) (Same as Law M514.) Seminar, three hours. Examination of identity, ownership, appropriation, and repatriation of both tangible and intangible cultural property as applied to American Indian nations. Examination of legal issues integral to cultural heritage and cultural survival of people. Consideration of importance of preservation of cultural property as means of maintaining group identity, self-determination, and sovereignty. 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? How about 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 cemeteries. S/U or letter grading.

274. Good Native Governance. (4 or 8) 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 cultural development, constitutional reform, membership criteria, cultural property protection, sacred sites, religious freedom, and safety and criminal law enforcement, among others. Examination of new intellectual property regimes and for Native nations must confront. Integration and highlighting of legal issues unique to Native nations within California. Materials from traditional law review articles, books, and case studies derived from field research to engage students in multidimensional settings that confront Native societies. May be concurrently scheduled with Law 637. S/U or letter grading.

C275. Cultures of Native Southern California. (4) Lecture, three hours. Introduction to Southern California indigenous societies through readings, discussion, guest lectures, and direct community participation. May be repeated for credit with topic and/or instructor change and consent of interdepartmental chair. Concurrently scheduled with course C175. S/U or letter grading.

C278. California Experiences in Native Cultural Resource Management. (4) Seminar, three hours. Exploration of creation and implementation of laws that affect cultural resource management in California, such as California Environmental Quality Act (CEQA), Native American Graves Protection and Repatriation Act (NAGPRA), AB 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 C178. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


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
Yibin 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 anesthesiologist 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

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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 anesthesiology topics, including physiology, pharmacology, and critical care.

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

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 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. Enrolled students conduct research 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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Box 951553
Los Angeles, CA 90095-1553

Anthropology

310-825-2055

Department e-mail

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Brooke A. Scelza, PhD, Graduate Vice Chair
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Professors

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Andrew Aptel, 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 Fiske, PhD
Linda C. Garro, PhD
Akhil Gupta, PhD
Laurie K. Hart, PhD
Douglas W.H. Hollan, PhD
Christopher M. Kelty, PhD
Paul V. Koskritch, PhD
Richard G. Lesure, PhD (Marilyn Beaудy-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. Slyomovics, 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
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Lewis L. Langness, PhD
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Michael Moerman, PhD
Philip L. Newman, PhD
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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

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

Assistant Professors

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

Adjunct Professor

Robert B. Lemenol, PhD

Adjunct Associate Professors

Tamar Kremer-Sadlik, PhD
Tritia 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 biology 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, 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 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 14A, 14B, 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.

Honors Program

The honors program provides research-oriented students with opportunity to engage in original research and analysis under the close supervision of faculty members and culminates in an honors thesis. To be admitted students should have a cumulative grade-point average of 3.0 overall and a 3.5 cumulative GPA in their upper-division Anthropology courses. The application for admission must be submitted during fall quarter. Ideal candidates should have junior or senior standing and have completed at least two upper-division anthropology courses. The proposal, research, analysis, and writing of the paper take place over four terms via Anthropology 191HA through 191HD. Course 191HA is taken in winter quarter and 191HB in spring quarter. Research should be done in summer, and courses 191HC and 191HD are taken in fall and winter quarters of the graduation year. Students should contact the departmental honors adviser early in their studies for more information.

Anthropology Minor

Students who wish to take a series of courses in anthropology, but major in another discipline, may be interested in the Anthropology minor. Students select courses from the four
fields within anthropology (archaeology, biological anthropology, linguistic anthropology, sociocultural anthropology), although they are encouraged to focus the body of their coursework within one field.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (10 units): Two courses from Anthropology 1, 2, 3, 4.

Required Upper-Division Courses (20 units minimum): Core course (Anthropology 111, 120, 130, 140, or M150) from one of the four anthropological areas 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 evolution past of human species. P/NP or letter grading.

2. Archaeology: Introduction. (Formerly numbered 8.) Lecture, three hours; discussion, one hour; fieldwork. Required as preparation for both bachelor's degrees. General survey of field and laboratory methods, theory, and major findings of anthropological archaeology, including case-study guest lectures presented by several campus archaeologists. P/NP or letter grading.

3. Culture and Society. (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, 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 temporal unfolding of communicative activities. Topics include language in everyday life and ritual events, socialization, literacy, multilingualism, embarrassment, prosody, memory, dis- course, and art-making as cultural activity. P/NP or letter grading.

5. Fiat Lux Freshman Seminars. (Formerly numbered 114L.) Lecture, two hours. Required 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.

6. Honors Seminars. (Formerly numbered 114L.) Seminar, three hours. Limited to 20 students. May be repeated for credit. P/NP or letter grading.

7. Themes in Anthropology, (Formerly numbered 114L.) Lecture, two hours; seminar, one hour. Required as preparation for honors requirements in anthropology. Course 2. Examination of chiefdom societies in anthropological record, with readings focused on theory and data from archaeological, historical, and ethnographic literature. Illustration of how 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.

8. Cities Past and Present. (Formerly numbered 114L) Lecture, three hours. Required for honors content noted on transcript. Letter grading.

9. Core course (Anthropology 111, Formally numbered 114P.) Lecture, three hours. Requisite: course 2. Examination of social and cultural context of modern archaeology. Topics include legal frameworks governing archaeological practice, relationships between archaeologists and descendant societies, and connection of archaeology in current politics. P/NP or letter grading.

Upper-Division Courses

Archaeology

100. History of Anthropology. (Formerly numbered 182.) Lecture, three hours. Brief survey of development of Western social science, particularly anthropology, from Greek and Roman thought to emergence of evolutionary theory and concept of culture in late 19th century. Root paradigm of Western social sciences and its development described with emphasis on Durkheim, Freud, Hall, Lombraso, Marx, Piaget, Terman, and others. Consideration of how this influences ethnocentrism and Eurocentrism, sexism, racism, perception of deviance, and view of culture in general. P/NP or letter grading.

110. Principles of Archaeology. (Formerly numbered 110P) Lecture, three hours; discussion, one hour (when scheduled). Required: course 2. Intended for students interested in conceptual structure of scientific archaeology. Archaeological 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.

111Q. Introduction to Archaeological Sciences. (Formerly numbered 111Q.) 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 use by others who have em- boded them in their scholarly publications or theo- retical models. Systematic instruction in digital data management and mining, scientific analysis of mate- rials (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 CM110Q. P/NP or letter grading.

111. Theory in Anthropological Archaeology. (Formerly numbered 111Q.) Lecture, three hours. Required: course 2. Method and theory with emphasis on archaeology within context of anthropology. Themes include theoretical develop-
116R. Archaeological Landscapes of China. (4) (Formerly numbered 116S.) Lecture, three hours; discussion, one hour (when scheduled). Declassified space images from Cold War era and open remote sensing data of 21st century provide opportunities for studying landscape transformation in historical China. Combining lectures, library research, and hands-on analysis of archaeological sites on satellite images, investigation of changing historical and archaeological landscapes 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 116N.) 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.

117. Selected Topics in Anthropology. (4) Lecture, one hour; laboratory, two hours. Specialized analysis of particular classes of cultural remains. Topics may include animal bones, plants, 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 Topics in Anthropology. (4) Lecture, three hours. Requisite: course 8. How archaeological research is furthered by specialized analysis of particular classes of cultural remains. Topics may include animal bones, plants, ceramics, rock art. Hands-on experience working with collections and data. May be repeated for credit with topic change. P/NP or Letter grading.

118P. Primate Behavior Nonhuman to Human. (4) (Formerly numbered 118PA.) Lecture, three hours; discussion, one hour (when scheduled). Recommended for credit with topic change. P/NP or Letter grading.


124P. Human Behavioral Ecology. (4) (Formerly numbered 124A) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course 1 or 124. Survey research in human behavioral ecology. Review of natural and sexual selection, kin selection, and reciprocal altruism. Emphasis on current empirical studies of modern human behavior from a methodological perspective, including social organization, sexual division of labor, parenting strategies, conflict, and cooperation. P/NP or Letter grading.

124Q. Evolutionary Psychology. (4) (Formerly numbered 124B) Lecture, three hours; discussion, one hour. Recommended requisite: course 1. Survey of research in evolutionary psychology. Review of relevant theory in evolution and genetics. Emphasis on empirical studies of modern human behavior from an evolutionary perspective, including social behavior, decision making, language, culture, and child development. P/NP or Letter grading.

124R. Evolution of Language. (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 function, and animal communication, language learning, language disorders, and computational models of language emergence. P/NP or Letter grading.

124S. Evolution of Human Sexual Behavior. (4) (Formerly numbered 124P) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Examination of human sexual relations and social behavior from evolutionary perspective. Emphasis on theories and evidence for differences between male and female evolutionary patterns of growth, maturation, fertility, mortality, parenting, and relations with members of opposite sex. P/NP or Letter grading.

124T. Evolution of Personality. (4) Lecture, three hours. Recommended requisite: course 1 or Life Sciences 1 or 7B or Psychology 10. Evolutionary hypotheses for existence of stable differences among individuals in patterns of thought, emotion, and behavior. Descriptive accounts of personality structure (e.g., Big Five). Comparative analyses of models including balancing selection, facultative calibration, and mutation-selection balance. P/NP or Letter grading.

125P. Paleopathology. (4) (Formerly numbered 125Q.) Lecture, three hours. Designed for juniors/seniors. Disease of disease and trauma, as preserved in skeletal remains of ancient and modern human populations. Discussions of medical procedures (trephining), bone deformation (crania), footbinding), cannibalism, and sacrifice and roles such activities have played in human societies. P/NP or Letter grading.


128P. Primate Behavior Nonhuman to Human. (4) (Formerly numbered 128A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Review of primate behavior as known from laboratory and field studies. Theoretical issues of animal behavior, with special reference to nonhuman primates. Dissection laboratory. 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 Photogaphy. (4) (Formerly numbered 135P.) Lecture, three hours; discussion, one hour (when scheduled). Study of anthropology and documentary photography. Use of primary data, illustrations of words in books, documentation for disappearing cultures, evidence of fieldwork, material objects for museum exhibitions, and events of art. Relationships between subject and treatment of image, between art photography and ethnographic documentation, role of museum photograph and caption, social practice in 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
to juniors/seniors. Survey of field of psychological anthropology, with emphasis on early foundations and historical development of field. Topics include study of personality, pathology and deviance, altered states of consciousness, cognition, motivation, and emotion in different cultural settings. P/NP or letter grading.

136B. Current Topics and Research. (Formerly numbered 135B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/se- niors. 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.


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

138P. Field Methods in Cultural Anthropology. (Formerly numbered 139.) Lecture, three hours; dis- cussion, one hour (when scheduled). Field methods in training, with emphasis on skills and techniques, methods, and concepts of ethno- graphical research and how basic observational infor- mation is systematized for presentation, analysis, and cross-cultural comparison. P/NP or letter grading.

M138Q. Fieldwork in Asian American and Pacific Islander Communities. (Formerly numbered M139P.) Lecture, three hours; discussion, one hour (when scheduled). Field methods in training, with emphasis on skills and techniques, methods, and concepts of ethno- graphical research and how basic observational infor- mation is systematized for presentation, analysis, and cross-cultural comparison. P/NP or letter grading.

139. Selected Topics in Cultural Anthropology. (Formerly numbered 137.) Lecture, three hours; dis- cussion, one hour (when scheduled). Study of se- lected 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 M150.) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 3. Intro- duction to more specialized social anthropology courses. Evaluation of variation in sociocultural sys- tems, with special emphasis on forms of inequity. Basic frameworks of methodological anthropology; historical context and development of social anthropology discipline. P/NP or letter grading.

142P. Anthropology of Religion. (Formerly numbered 158P.) Lecture, three hours. Survey of various methodologies in comparative study of religious ide- ologies and action systems, including understanding particular religious themes through descriptive and structural approaches, and identification of social and psycholog- ical factors that may account for variation in reli- gious systems cross-culturally. P/NP or letter grading.

142Q. Ethnic and Religious Minorities. (Formerly numbered M159P.) Lecture, three hours. Survey of methods in comparative study of religious ide- ologies and action systems, including understanding particular religious themes through descriptive and structural approaches, and identification of social and psycholog- ical factors that may account for variation in reli- gious systems cross-culturally. P/NP or letter grading.

143. Economic Anthropology. (Formerly numbered M153P) Lecture, three hours. Requisite: course 3. Introduction to anthropological perspectives for in- terpretation of economic life and institutions. Eco- nomic facts to be placed in their larger social, polit- ical, 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 American Studies M169.) Lecture, three hours. Examination of race, socially constructed cate- gory, from anthropological perspective. Consideration of development of racial categories over time and in different cultural settings. Examination of urban, rural, and indigenous cultures in context of social relations by drawing from historical and cross-cultural urban ethnographies. Urban space is created according to needs of capital and actions of urban subjects. Exploration of ways in which class, gender, race, and geography shape or contest perspectives and priorities on urban issues. P/NP or letter grading.

147. Development Anthropology. (Formerly numbered M161.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. Designed for junior/senior social sciences majors. Introduction to modern industrial cities and urban life. Examination of notion of urbanization, marginalization, and identity. 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 under- standing of contemporary sociocultural forms among Afro-Americans in U.S. by presenting comparative and diachronic perspective on Afro-American experi- ence in New World. Emphasis on utilization of anthro- pological concepts and methods in understanding or- igins and maintenance of particular patterns of adap- tation among black Americans. P/NP or letter grading.


C144S. Repatriation of Native American Human Remains and Cultural Objects. (Formerly numbered M169.) Lecture, two hours; discussion, one hour. Native Americans have recently been successful in obtaining passage of federal and state laws ratifying human remains and cultural objects to them. Examination of this phenomenon. May be concur- rently audited with course C244S. P/NP or letter grading.

M145P. Marriage, Family, and Kinship. (Formerly numbered M151.) (Same as Gender Studies M154P) Lecture, three hours. Requisite: course 3. Ex- amination of underlying kinship in cross-cul- tural perspective and impact of kinship on interper- sonal relationships, gender roles, and sociocultural systems. Readings from popular materials and formal ethnographic accounts. Consideration of cultural thought and behavior to language; and language and classification of experience. Holistic approach to study of language, with emphasis on relationship of language with anthropology to folklore, linguistics, cultural, and social anthropology, as well as archaeology. P/NP or letter grading.

M150. Language in Culture. (Formerly numbered M140.) (Same as Linguistics M146.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Requisite: course 4 or Linguistics 20. Study of language as aspect of societal life. Consideration of social and cultural context of language use and socialization over childhood, across communities of practice, and across different ethnic and socioeconomic groups. Bridges work from anthropology, psychology, linguistics, and cognitive science. Topics include cross-cultural perspectives on child development and wide range of methodolog-
152Q. Language and Social Organization through Life Cycle. (4) (Formerly numbered M146.) Lecture, three hours; discussion, one hour. 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 patterns 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 and the significance of 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 multilingual or more languages (multilingualism) by individuals and by groups. Broader themes in social theory, anthropological inquiry, sociolinguistics, and literary studies in lectures to contextualize class readings. P/NP or letter grading.

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

155. Native American Languages and Their Speechers. (4) (Formerly numbered C155.) Lecture, three hours. Requisite: course 4 or American Indian Studies M10. Introduction and comparative analysis of socio-cultural aspects of language ideologies and language use in 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 different 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 of language 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 discussed. P/NP or letter grading.

156L. Language Endangerment and Linguistic Revitalization. (4) (Formerly numbered M162.) (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 cultural diversity and linguistic diversity, many affected communities have engaged in various language renewal practices. Examination of some diverse strategies that have been attempted, including immersion, master-apprentice, interactive multimedia, mass media approaches, and language policy-reform approaches. Evaluation of effectiveness of these measures and of their utility is discussed. 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 3. Relationship between language and human body raises host of interesting topics. New approaches to phenomena such as embodiment becomes possible if 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 could surprise. Satisfies Writing II requirement. Letter grading.

M158. Culture of Jazz Aesthetics. (4) (Formerly numbered M142R.) (Same as Ethnomusicology, M130.) Lecture, three hours. Requisite: course 4 or M101G or M101B or at least 4 units of music. Aesthetics of jazz from point of view of music historian 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 juniors/seniors. Consideration of how Native American societies and cultures have undergone since European contact. Emphasis on patterns of adaptation and continuity as Native Americans confronted colonization 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 how very diverse Native American societies and cultures have undergone since European contact. Emphasis on patterns of adaptation and continuity as Native Americans confronted colonization and its implications. P/NP or letter grading.

161. Latin American Communities. (4) (Formerly numbered 173Q.) Lecture, three hours. Overview of social and cultural anthropological fieldwork in Latin America. Similarities and contrasts in social organization and intercultural relations 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 with Bolivians, Chileans, Paraguayans, and 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 the cultural legacy of aboriginal 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 capitalist socialization, changes in courtship, marriage, and family, and political economy of reforms in post-Mao era. P/NP or letter grading.

163G. Societies of the Pacific Ocean. (4) (Formerly numbered M175R.) Lecture, three hours. Four hours; activity, one hour. Requisites: course 4. Examination of culture and society among diverse peoples of Inner Asia, including Mongolia, Tibet, and Soviet Central Asia. Topics include environment and economic adaptation; political organization in traditional and modern framework of work of recent national integration, kinship, forms of marriage and status of women, religion and social control, Buddhist and Hindu/Buddhist culture contact zone, and current problems of modernization. P/NP or letter grading.

163JL. 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; activity, one hour. Requisites: course 4. Examination of sociocultural changes in China from 1949 to present. Topics include ideology and politics in everyday life, social stratification and mobility, cultural construction of capitalist socialization, changes in courtship, marriage, and family, and political economy of reforms in post-Mao era. P/NP or letter grading.

166Q. Culture Area of Maghrib (North Africa). (4) (Formerly numbered M171P.) (Same as Arabic M171 and History M106C.) Lecture, three hours. Designed for juniors/seniors. Introduction to North Africa, especially Morocco, Algeria, Tunisia, and Libya, also known as Maghrib or Tromazia. 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 mental 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, historical, and cultural overview of language distribution in whole region. Distinctive sociocultural features of each culture area presented in context of their adaptive significance. P/NP or letter grading.

168Q. Ethnic Identity and Ethnic Relations in Hawai’i. (4) (Formerly numbered M171Q.) (Same as Asian American 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 theorectical approaches to and basic concepts in study of ethnic identity and ethnic relations. Discussion of how Hawai’i’s unique contemporary aspects of ethnic identity and ethnic relations in Hawai’i. P/NP or letter grading.

169. Selected Topics in Regional Cultures. (4) (Formerly numbered 170.) 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.
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 a function of lecture course to allow individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

**191. Variable Topics Research Seminars: Anthropology.** (4) Seminar, three hours. Research seminar on selected topics in anthropology. 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.

**191A. Beginning Seminar.** (4) Seminar, three hours. Limited to anthropology honors program students. Survey of major research strategies in anthropology to aid honors students in developing research proposals. Letter grading.

**191B. Field Methods.** (4) Seminar, three hours. Limited to anthropology honors program students. Survey of major field methods in anthropology to prepare students to conduct their own field research. Letter grading.

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

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

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

**193. Journal Club Seminars: Anthropology.** (1) Seminar, one hour. Limited to undergraduate students. Discussion of current readings in discipline. May be repeated for credit with topic change. P/NP grading.

**194. Research Group Seminars: Anthropology.** (1) Seminar, one hour. Limited to undergraduate students who are part of research group or internship. Discussion of research on current literature in discipline or of research of faculty members or students. May meet concurrently with graduate research seminar. May be repeated for credit with topic change. P/NP grading.

**195CE. Community and Corporate Internships in Anthropology.** (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that exam ine issues related to internship site. May be repeated for credit with consent of Center for Community Learning. No more than 4 units may be applied toward major; units applied may be used toward general education requirements. P/NP or letter grading.

**197. Individual Studies in Anthropology.** (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter (e.g., paper or other product) required. May be repeated for credit. Individual contract required. P/NP or letter grading.

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

**201C. 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 presentations, 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 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.


**203B. Sociocultural Systems and Ethnography: Anthropology at Mid-Century.** (4) Seminar, three hours. Recommended requisites: course 203A. Examination of development of major schools of sociocultural thought during middle decades of 20th century. Emphasis on foundation of sociocultural theories, concepts, and methodologies found in contemporary anthropology. Letter grading.

**203C. Scientific and Interpretive Frameworks in Contemporary Anthropology.** (4) Seminar, three hours. Recommended requisites: course 203B. Examination of selected contemporary anthropological issues and their implications for 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 from sociocultural perspective. Discussion of current readings in discipline. Letter grading.

**219. 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.

**Archaeology**

**210. Analytical Methods in Archaeological Studies.** (4) Seminar, three hours. Focus on the study of artifacts and archaeological data. May be repeated for credit. P/NP or letter grading.

**210Q. Introduction to Archaeological Sciences.** (4) (Same as Ancient Near East CM269.) Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology. May be repeated for credit. May be applied toward honors credit for eligible students. 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 discovery approach to classify objects and generate relevant interpretation of ceramic and pottery examples. Review of relationship between classification, style, and function. S/U or letter grading.

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

**212D. Archaeology of Urbanism.** (4) (Formerly numbered 217A) Seminar, three hours. Evaluation of cities as most complex form of human population center, using both archaeological and modern examples. Observations about material culture and space enable assessment of social dynamics as cities are constructed and lived in by variety of different ethnic, economic, political, and social groups. S/U or letter grading.

**214. Selected Topics in Prehistoric Civilizations of New World.** (4) Seminar, three hours. Mesoamerican and Andean civilizations normally constitute major focus of seminar. May be repeated for credit. S/U or letter grading.

**216. Topics in Asian Archaeology.** (4) (Same as Art History M268B) Seminar, three hours. Designed for graduate students. Topics may include identification of ethnic groups in archaeology, archaeology of religions, archaeological reflections of commerce and trade and their influence on social development, archaeology of language dispersal, cultural contact and nature of cultural influence. S/U or letter grading.

**CM217. Selected Laboratory Topics in Archaeology.** (4) (Formerly numbered M212S.) (Same as Archaeology M205A) Lecture, one hour; laboratory, two hours. Designed for graduate students in archaeology or in other departments. Specialized analysis of particular classes of cultural remains. Topics may be one of following: zoological archaeology, 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. Variable topics 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 societies, pluralistic/idealistic debates, urbanism, and exchange systems. May be repeated for credit. S/U or letter grading.
Biological Anthropology


222. Great Controversies: Biological Anthropology in Review. (4) Seminar, three hours. Graduate core course in biological anthropology. Topics include evolutionary theory, behavior of nonhuman primates, hominid evolution, 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. Emphasis on research ideas and methods and analyzing results. S/U or letter grading.

229. Current Problems in Biological Anthropology. (4) Formerly numbered 220.) Seminar, three hours. Detailed examination of research in biological anthropology (specific topics to be announced). Emphasis on nature of hypotheses and their testing in ongoing student and faculty research. May be repeated for credit. S/U or letter grading.

Sociocultural Anthropology


232P. Anthropology and Media Theory. (4) Formerly numbered 232R.) Seminar, three hours. Limited to graduate students. Examination of theoretical assumptions and debates that animate visual anthropology very broadly defined, including issues of interpretation, production, and reception of visual media, which includes ethnographic, documentary, and feature films, as well as television programming. S/U or letter grading.

232Q. Anthropology and Media Practices. (4) Formerly numbered 232Q.) Seminar, three hours. Limited to graduate students. Examination of how media anthropology works. S/U or letter grading.

233. Anthropology and Media Theory. (4) Formerly numbered 233R.) Seminar, three hours. Limited to graduate students. Examination of theoretical assumptions and debates that animate visual anthropology very broadly defined, including issues of interpretation, production, and reception of visual media, which includes ethnographic, documentary, and feature films, as well as television programming. S/U or letter grading.

232Q. Anthropology and Media Practices. (4) Formerly numbered 232Q.) Seminar, three hours. Limited to graduate students. Examination of how media anthropology works. S/U or letter grading.

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

237. Psychological Anthropology. (4) Formerly numbered M234P.) (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. Emphasis on nature of hypotheses and their testing in anthropological work. 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 M267.) 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.


C244S. Repatriation of Native American Human Remains and Cultural Objects. (4) (Formerly numbered M263P.) Lecture, 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 underlying 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. Consideration of who belongs to African diaspora community, and how this community is imaged. S/U or letter grading.

246. Contemporary Problems in Africa. (4) Formerly numbered 271.) Seminar, three hours. Problematic issues in Africa in light of classical anthropological literature and recent work by anthropologists and other fieldworkers in Africa, particularly in cases from eastern and southern Africa. S/U or letter grading.

M247P. Japan in Asia of Empire. (4) (Formerly numbered M276.) (Same as Asian M292 and History M296.) Seminar, three hours. Designed for graduate students. The Bunmei kan or Golden Age late 19th century was when Japan expanded its empire into East and Southeast Asia. Coverage of that period and array of anthropological studies conducted in Japan’s colonies and occupied areas in this hardly examined area of study of colonialism. S/U or letter grading.

M247Q. Central Asian Studies: Discipline, Methods, Debates. (2) (Formerly numbered M287R.) (Same as History M292 and Languages M287.) Seminar, two hours. Introduction to study of central Asia as practiced in humanities and social sciences disciplines. S/U grading.

M248. Anthropology and History of Mediterranean. (4) (Same as History M248 and Near Eastern Languages M248.) Seminar, three hours. Introduction to historical and anthropological writings about Mediterranean. Draws on variety of classic and contemporary theoretical histories, biographies, and Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame concepts, colonial and post-colonial Mediterranean, Levantine, French Mediterraneans, Jewish Mediterranean, colonial and post-colonial sea and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean and scholarly literature that emphasizes southern shores of Mediterranean. Letter grading.

249. Selected Topics in Social Anthropology. (4) Formerly numbered 250.) Seminar, three hours. Extensive examination of current theoretical views and literature. S/U or letter grading.

252A. Ethnography of Communication. (4) Formerly numbered 242A.) Seminar, three hours. Designed for graduate students. Seminar devoted to examining research of scholars working in sociolinguistics and ethnography of communication. Particular attention to theoretical developments including relationship of ethnography of communication to such disciplines as anthropology, psychology, and sociology. 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 communicative practices 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. Devoted to skills related to collecting socially and culturally meaningful data. Letter grading.

253. Language Ideologies: Political Economy of Language Beliefs and Practices. (4) (Formerly numbered 241A.) Lecture, three hours. Language ideological research problematizes fundamental assumptions about speakers‘ use of language and communicative practices: (1) speakers‘ awareness of these structures and processes and their relationship to this consciousness to speakers‘ political economic perspectives and to actual communicative conduct. S/U or letter grading.

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

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

Linguistic Anthropology

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

258. Language Socialization. (4) (Formerly numbered 248) Seminar, four hours. Examination of processes of socialization through language and socialization to use language across lifespan, across communities of practice within single society, and across different ethnic and socioeconomic groups. Ways in which verbal interactions 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, thought, culture, and society may be repeated for credit. S/U or letter grading.

Research Methods

282. Research Design in Cultural Anthropology. (4) Lecture, three hours. Primarily designed for graduates who are preparing for fieldwork. Unique position of anthropology among sciences and resulting problems for scientific research design. Review of typical research problems and appropriate methods. Students prepare their own research designs and present them for class discussion. S/U or letter grading.

M284A. Qualitative Research Methodology. (4) (Formerly numbered M284A.) Same as Community Health Sciences M216.) Seminar, three hours: laboratory, one hour. Intensive seminar/field course in qualitative research methodology. Emphasis on using qualitative methods and techniques in research and evaluation related to healthcare. Letter grading.

284B. Quantitative Research Methodology. (4) (Formerly numbered 284P) Seminar, three hours. Limited to graduate students. Recommended preparation: research design course. Hands-on approach to qualitative methods used in anthropological research and techniques for analysis of qualitative data. Particular methods depend on and are appropriate to research questions and designs students bring to class. S/U or letter grading.

288. Relational Models Theory and Research Design. (4) Seminar, three hours. Relational models theory (RMT) posits that people in all cultures use combinations of just four relational models (RMs) to organize most aspects of most social coordination: communal sharing, authority ranking, equality matching, and market pricing. Exploration of how people use these RMs to motivate, generate, constitute, coordinate, judge, and sanction social interaction. RMT aims to account for what is universal and what is specific across cultures, posing necessity for cultural complements that specify how and with whom each relational model operates. Readings may include RMT research in social anthropology, archaeology, social theory, semiotics, linguistics, developmental, cognitive, social, political, moral, clinical, and cultural psychology, neuroscience, evolution, social, family studies, philosophy, management, marketing, and consumer psychology, economics, justice, public health, policy, and international development. S/U or letter grading.

Specialized Studies

294. Human Complex Systems Forum. (1) Seminar, 90 minutes every other week. Interdisciplinary seminar series to provide students with exposure to current research in understanding nature of human societies from complexity and multiagent perspective. May be repeated for credit. S/U grading.


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

Special Studies

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

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

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.


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


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

Applied Linguistics

Lower-Division Courses

30W. Language and Social Interaction. (5) Lecture, three hours; discussion, two hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 56. Not open to credit to students with credit for course 30. Exploration of range of topics related to study of language and social interaction in both mundane and professional settings, particularly how language affects social lives and how social organization affects use of language. Topics include different approaches to study of language in social interaction (theories and research methodologies), issues regarding social identity (such as socioeconomic status, race, gender, and situational identity), and issues concerning language and culture (such as cross-cultural misunderstanding and language socialization). Satisfies Writing II requirement. Letter grading.

Applied Linguistics

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Linguistics
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Linguistics e-mail

Kie R. Zuraw, PhD, Chair

The UCLA Academic Senate approved the disestablishment of the Department of Applied Linguistics; the discontinuance of the graduate degree and certificate programs, Language Teaching minor, and African Languages BA; and the transfer of the Applied Linguistics BA to the Department of Linguistics effective winter quarter 2015. Students currently enrolled in any of the programs may complete them under current requirements.

Undergraduate Study

African Languages BA
The African Languages BA was discontinued effective winter quarter 2015.

Applied Linguistics BA
The Applied Linguistics BA was transferred to the Linguistics Department effective winter quarter 2015.

Language Teaching Minor
The Language Teaching minor was discontinued effective winter quarter 2015.

Graduate Study
The Department of Applied Linguistics offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Applied Linguistics. However, the UCLA Academic Senate approved the discontinuance of the graduate degree and certificate programs effective winter quarter 2015. Students currently enrolled in any of the programs may complete them under current requirements.

Applied Linguistics
40W. 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 “gendered” and “genderless” language, as reflected in lexicun, language behavior, phonetics and intonation, and language acquisition and linguistic change. Satisfies Writing II requirement. Letter grading.

Upper-Division Courses

101W. Introduction to Language Learning and Language Teaching. (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.

102W. 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 3 due to ontogenetic (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 proficiency that fall far below that of native speakers. Examination of interaction of emotion and cognition and nature of aptitude and motivation in learning. Primary vehicle for investigation to be autobiographical instruction. Satisfies Writing II requirement. Letter grading.


Graduate Courses

278. Discourse Laboratory. (4) Laboratory, four hours. Requisite: course M206. Designed for Applied work in language and cultural teaching. Successful second and foreign language learning; applications 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.

Scope and Objectives

The interdisciplinary Archaeology Program offers MA and PhD degrees in Archaeology. It brings together interests and specialists centered by those departments offering courses in archaeology, as well as others offering courses relevant to archaeology. The primary purpose of the program is to train scholars in archaeology for university-level teaching and research and other professional aims. Its resources are intended for those archaeology students whose academic goals cannot be met within any single department and who, consequently, require an individually designed plan of study combining academic preparation in two or more departments. Applications are especially encouraged from students whose interests may form bridges with disciplines and departments not offering archaeology (e.g., botany, chemistry, geology, mathematics, statistics, and zoology). There are opportunities for participation in a variety of field, laboratory, and computer studies.

ARCHAEOLOGY

Interdepartmental Program

College of Letters and Science

A210 Fowler Building

Los Angeles, CA 90095-1510

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 zooarchaeological 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. 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

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-
M112. Archaeology and Art of Christian and Islamic Egypt. (4) (Same as Art History M119D; Islamic Studies M112, and Middle Eastern Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest in mid-7th century CE. According to material evidence such as ceramics, textiles, architectural forms, and building techniques, it is functionally impossible to separate pre-Islamic Christian Egypt from early Islamic Egypt. Although population may have become largely Muslim by 10th century, Egyptian civilization continued to influence culture and shifts in human geography and land use. P/NP or letter grading.

C120. Special Topics in Archaeology. (2 or 4) Lecture, three hours. Designed for juniors/seniors. Special topics exploration of metallic works of art. Discussion of phase and stability diagrams of common alloying systems and environments. Metallurgical study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese swordmaking, Indian high-tin bronze alloys, bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C180. 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.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

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

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

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

599. PhD Dissertation Research and Preparation. (2 to 12) Tutorial, to be arranged. May be repeated for credit with consent of adviser. S/U grading.
The Department of Architecture and Urban Design at UCLA offers a Bachelor of Arts degree in Architectural Studies and four graduate degrees 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 requisite for licensure. NAAB, the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: Bachelor of Architecture and Master of Architecture. 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 and special focus or letter grading.

Preparation for the Major

depth through supplemental readings, papers, or other activities and 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: Photoshop, Illustrator, and Rhino.

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. Introduction of individual solutions to problems. Offered in summer only. 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- and organization-landscape and how those can influence design of building and site. Development of material- and temporal-characteristics of architecture relative to role those play in landscape. Introduction to issues of accessibility and egress as systems of movement. Structure as central component that relates to site, construction, topography, climaticity, accessibility, and their intergrading.

M125B. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypercities, 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 introduction to 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 application of digital tools to research and development of new fields. How to use suites of GIS and neogeography tools. Fostering of creative approaches to and engagement with mapping technologies: What new questions can be asked and answered using these technologies? How does one reason, argue, and solve world problems through digital cultural mapping? Design of development, and implementation of student mapping-based research projects. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

M125C. Digital Cultural Mapping Core Course C: Summer Research. (4) (Same as Ancient Near East M125C.) Laboratory, three hours; fieldwork, one hour. Enforced requisite: course M125B or Ancient Near East M125B. Participation in collaborative geographic information systems (GIS) research project in humanities or social sciences using skills learned in courses 125A and M125B. (Minor has) and input of datasets from real-world sources, creating visual representations of data through production of digital maps, and performing analysis of larger dataset to answer specific research questions. Presentations that details student work and provides critical analysis of source material and technological/methological issues inherent to type of GIS used for investigation. Collaboration with Digital Cultural Mapping Project supported by W.M. Keck Foundation. Offered in summer only. P/NP or letter grading.

130. Space and Place. (4) (Formerly numbered M130.) (Same as World Arts and Cultures M130.) Lecture, three hours; studio, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.


132. Domestic Architecture: Critical History. (5) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. Investigation of relationships between culture and design through medium of domestic architecture, from communal living arrangements of antiquity to functional and automated ideals of modern movement. Exploration of how design is influenced by use of resources, including materials, water, and land. Concurrently scheduled with course CM230. P/NP or letter grading.

133. Domestic Architecture: Critical History. (5) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. Investigation of relationships between culture and design through medium of domestic architecture, from communal living arrangements of antiquity to functional and automated ideals of modern movement. Exploration of how design is influenced by use of resources, including materials, water, and land. Concurrently scheduled with course CM230. P/NP or letter grading.

134. Technology II: Building Materials and Methods. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to building computer-aided design and three-dimensional digital modeling and drafting. Letter grading.

135. 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 dynamically 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.

136. Project supported by W.M. Keck Foundation. P/NP or letter grading.

142. Technology II: Building Materials and Methods. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to building computer-aided design and three-dimensional digital modeling and drafting. 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 dynamically 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.

144. Project supported by W.M. Keck Foundation. 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. How computer-aided design and computer-aided design methods are commonly found in professional offices. Two- and
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. Use of representation, abstractions, and constructs. Logical structure of design information. Development of knowledge used in areas of design, how it can be identified and structure. Letter 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.

CM247A. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Urban Planning B247A.) Lecture, three hours. Relationship of design to 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 CM151A. S/U or letter grading.


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

286. 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, sites, and landscape designs to reveal changing cultural and theoretical values, as well as specific aesthetic and ideological concerns. S/U or letter grading.

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

290. Special Topics in Critical Studies in Architectural Culture. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Designed for graduate students. Exploration of how architecture operates in relation to wider cultural, historical, and theoretical contexts. May be repeated for maximum of 30 units. Letter grading.

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

M293. Politics, Ideology, and Design. (4) (Same as Urban Planning M293.) Lecture, three hours. Exploration of cultural and political context of architecture and urban design and practice from variety of perspectives applied to set of varied physical environments and to set of current spatialized concepts. Consideration of theoretical propositions that are shaping present urban and architectural debate and concrete case studies where politics and ideology shape design process. Letter grading.

294A-294B. Environmental Psychology. (4-4) 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, and surround experience, and pattern on architecture, 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 human focus. Focus on Los Angeles, with concepts seminar, methods laboratory, projects studio, and site visit components. Offered in summer only. S/U or letter grading.

296. Professional Practice in Architectural Culture. (4) Seminar, three hours. Orientation for PhD 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) Seminars, 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 paper 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-403C. Research studios for MArch I students; satisfactory completion of intermediate-level studios (courses 412, 413, 414) or MArch II student. Course 403A is required for students planning to enroll in courses 403B and 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 on joint project for client. Outside speakers: field trips. Examples of past projects include Third Street Housing, Santa Monica; New American House for nontraditional households; Pico Union Housing, Baja: 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. Requisite: course 411. Concentration on basic skills, leading to projects exploring architectural program in relation to design process, particularly, interplay among on architectural forms and concepts. In second phase, introduction of structural elements to fulfill program requirements and to support and further develop implemented forms and components. Students undertake series of closely controlled exercises dealing with combining elements and then design small buildings. Letter grading.

412. Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: course 411. Introduction to theoretical and technical issues such as site planning, urban design, landscape design, building typography, Building design and site planing in relation to water, landforms, and plants in natural light, heat, and ventilation. Letter grading.

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

415. Comprehensive Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: course 414. Fulmination of core sequence (courses 411 through 414), formed on development of project. Technological concerns such as lighting, material innovation, sustainability, construction documents, and building envelopes are considered critical to generation of architectural form, integrated in design of single building project. Letter grading.


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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 specializations 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, as well as professionally develop 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. Variied 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, movies, 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. Introduction to post-production skills and tools for editing and altering images and producing high-quality printed images. Letter grading.

21A. Production: Photographic 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 re-shoots and techniques, including flashlight, fig-rig, dollies, and green screens. Introduction to and development of familiarity with post-production software and processes of editing, animating, exporting, and presenting high-quality sound and moving image works. Letter grading.

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

31B. Modernism. (5) Lecture, three hours; discussion, one hour; field trips, three hours. Art majors should complete courses 31A, 31B, and 31C in sequence. Focus of course to be determined by instructor. Emphasis is 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 ideas through latter part of 20th century, ideas of developing modernism, shift from modernism to postmodernist practices and theories, with focus on work made from 1960s to present. Letter grading.

70. Summer Art Institute: Special Topics in Studio. (3) Studio/lecture/field trips, 45 hours. Limited to high school students in Summer Art Institute. Two-week intensive in studio art covering range of media and contemporary art practices and combination of focused studio work and presentations, field trips, critiques, and final exhibition of student work. Offered only as part of Summer Institute. May be repeated once for credit. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as an adjunct to lower-division coursework. Exploration of topics in greater depth through supplemental readings, papers, or other activities determined by the course instructor. May be applied toward Honors credit for eligible students. Honors contract noted on transcript. P/NP or letter grading.

99. Student Research Project. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and 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

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 of contemporary art. May be repeated for maximum of 20 units. Letter grading.

130. Advanced Drawing. (5) Studio, eight hours; seven hours arranged. Requisite: course 13A. Drawing as both independent expressive medium and as means of visualizing and experimenting. 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 modernist, 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 111A. 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, monotype. May be repeated for maximum of 20 units. Letter grading.

145. Advanced Sculpture. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Selected studies in sculpture, historical and contemporary: modeling, carving, casting, and other media; forms in space, including installations and nonstudio pieces. May be repeated for maximum of 20 units. Letter grading.

147. Advanced Photography. (5) Studio, eight hours; seven hours arranged. Requisite: course 11F. Selected studies in photography and related media, concentrating on development of individual students’ approaches. Studio emphasis on theory and critical analysis. May be repeated for maximum of 20 units. Letter grading.

148. Advanced Ceramics. (5) Studio, eight hours; seven hours arranged. Requisite: course 11E. Selected studies in ceramics, with emphasis on individualized creative experimentation with materials and techniques introduced in course. Methods and processes to be selected from range of possibilities, including glazing, surface decoration, and combination of fired and unfired media. May be repeated for maximum of 20 units. Letter grading.

150. Senior Studio. (5) Studio, eight hours; seven hours arranged. Limited to seniors. Advanced studio projects, with emphasis on analysis and criticism of individual creative work and ideas. Letter grading.

170. Special Topics in Studio. (2 to 4) Studio/museum visits, four to eight hours; five hours arranged. Current themes in art theory, practice, and criticism, offering students opportunity to explore these issues in studio context through critique of work and discussion of recommended readings. May be repeated for maximum of 16 units. P/NP or letter grading.

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. Introduction to temporary exhibition and related field of curatorial activity and contextual 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. Selected topics in art explored through variety of approaches that may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Concurrently scheduled with course C283. Letter grading.


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. Preparation: at least one course from 100 through 150. Selected topics in art explored through variety of approaches that may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Concurrently scheduled with course C285. Letter grading.

M189. Chicana Art and Artists. (4) Same as Chicana and Chicano Studies M189. Lecture, four hours. Preparation: at least one course from 100 through 150. Introduction to Chicana and Chicano art and artists. Examination of Chicana aesthetic. Chicana artists have developed unique experience and identity as artists and Chicanas. Letter grading.

M191. World Arts and Cultures / 163
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/N or letter grading.

M186A. Beyond Mexican Mural: Beginning Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186A and World Arts and Cultures M125SB) Studio/lecture, four hours. Corequisite: course M186AL. Investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Concurrently scheduled with course course C183. Letter grading.

M186AL-M186BL-M186CL. Beyond Mexican Mural: Muralism and Community Laboratory. (4–4–2) (Same as Chicana and Chicano Studies M186AL-M186BL-M186CL and World Arts and Cultures M125SB-M125SL-M125CLC.) Course M186AL is required to fulfill M186BL requirement. Preparation: 3.0 grade-point average in major. Corequisite: course M186AL. 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 M186AL with laboratory tech support, it offers instruction as students independently and in collaborative teams research, design, and produce large-scale painted and digitally generated murals in community setting. P/N or letter grading. 186AL. Beginning Laboratory, four hours. Corequisite: course M186A; M186BL. Intermediate Laboratory, four hours. Requisites: 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 M125SB.) Studio/lecture, four hours. Requisites: courses M186A, M186AL. Corequisite: course M186BCL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through states of production to full scale and community approval. P/N or letter grading. 186CL. Beyond Mexican Mural: Advanced Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186C and World Arts and Cultures M125SC.) Studio/lecture, six hours. Requisites: courses M186B, M186AL. Corequisite: course M186CCL. 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. Work on more advanced independent projects. P/N or letter grading.

C187. Contemporary Art Collections in Los Angeles. (2) Seminar, three hours; outside study, three hours. Exploration of critical issues regarding concept of collections and collecting. Visits to institutions and collections and discussion of vision, goals, and scope of collections, as well as role of 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.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate level courses. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

190. Studio/Research Colloquia in Art. (1) Seminar, three hours. Corequisite: course 197 or 198. Limited to juniors/seniors. Designed to bring together students undertaking supervised tutorial studio projects or research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for maximum of 4 units. P/NP grading.

193. Journel Club Seminars: Current Topics in Art. (1) Seminar, three hours. Limited to junior/senior Art majors. Discussion of selected current exhibitions, visiting artist lectures, screenings, and readings in field. May be repeated for a maximum of 8 units. Individual contract required. Letter grading.

195. Community Internships in Art. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors. Art-related internship in supervised setting in community agency, business, or institution. Students meet on regular basis with instructor and provide periodic reports of their experience. Only 4 units may be applied toward upper-division art elective major requirement. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Art. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Corequisite: course 190. Limited to junior/senior Art majors. Individual intensive studio project or study with scheduled meetings to be arranged between faculty member and student. Tangible evidence of project or mastery of subject matter required. May be repeated for maximum of 8 units. Individual contract required. Letter grading.

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

Graduate Courses

271. Graduate Painting. (2 to 8) Studio, eight hours. Study in painting and associated media. May be repeated for credit with consent of adviser. Letter grading.

272. Graduate Printmaking. (2 to 8) Studio, eight hours. Studies in traditional and experimental printmaking. Selected studies in intaglio, lithograph, woodcut, silk screening, salt, mud, and mixed media. May be repeated for credit with consent of adviser. Letter grading.

273. Graduate Sculpture. (2 to 8) Studio, eight hours. Studies in sculpture, including history and ongoing nature, specificity, and approach to each student’s particular discipline. Individual studio visits and consultation. May be repeated for credit with consent of adviser. Letter grading.

274. Graduate Photography. (2 to 8) Studio, eight hours. Studies concentrating on development of individual student's artwork. Study emphasis with adjacent studies in theoretical and critical analysis. Special attention to original, expressive, social, and humanistic values of art. May be repeated for credit with consent of adviser. Letter grading.

275. Graduate New Genres. (2 to 8) Studio, eight hours. Studies in alternative media, including installation, performance, video, film, and other nontraditional media and processes. May be repeated for credit with consent of adviser. Letter grading.

276. Graduate Group Critique. (4) Discussion, four hours; tutorial, to be arranged. Group critique/discussion of students’ research. Additional tutorial meetings by arrangement with instructor. May be repeated for credit. Letter grading.

277. Graduate Ceramics. (2 to 8) Studio, eight hours. Studies in theory and practice of traditional and experimental processes and intellectual approaches to art practice utilizing ceramic media. Emphasis on development of significant body of original work reflecting student's expressive and theoretical concerns. May be repeated for credit. Letter grading.

278. Interdisciplinary Studio. (2 to 8) Studio, eight hours. Tutorial focused on directed research, studio visitation, and group discussions of recommended readings. May be repeated for credit. S/U or letter grading.

280. Seminar: Art. (4) Seminar, three hours. Advanced topics in critical theory and study of contemporary art, with emphasis on issues, individuals, 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 C183. Letter grading.

281. Exhibition and System. (4) Seminar, four hours. Examination of temporary exhibition and its associated field of publications as intertextual system of meaning, beginning with individual works and proceeding to overall analysis of current exhibitions. May be repeated for credit. Concurrently scheduled with course C181. Letter grading.

282. Exhibitions and Public Programs. (4) Seminar, four hours. Introduction to principles of program planning and community development in relation to visual arts and work of art museums. May be repeated for credit. Concurrently scheduled with course C184. Letter grading.

283. Special Topics in Art. (2 or 4) Seminar, six hours (2-unit course) or 12 hours (4-unit course). Selected topics in art explored through variety of approaches that may include projects, readings, dissertation research papers, and presentations. Topics to be announced in advance. May be repeated for credit. Concurrently scheduled with course C183. Letter grading.

C187. Contemporary Art Collections in Los Angeles. (2) Seminar, three hours; outside study, three hours. Exploration of critical issues regarding concept of collections and collecting. Visits to institutions and collections and discussion of vision, goals, and scope of collections, as well as individual works. Concurrently scheduled with course C187. Letter grading.

375. Teaching Apprentice Practicum (1 to 4). Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. P/NP grading.

400A–400B. Visiting Artists Studio. (2–3) Studio, six hours. Designed for MFA students. Introduction to visiting artists in their area of study, with focus on one-on-one critiques with wide range of practitioners. In addition to one-on-one critiques (400A) and studiocritiques (400B).

400C. Visiting Artists Studio. (4) Study. 12 hours. Limited to graduate art students. Introduction to visiting artists in their area of study, with focus on one-on-one critiques with wide range of practitioners. S/U grading.

401. MFA Working Groups. (2) Research group meeting, two hours. Limited to MFA students. Three or more MFA candidates propose research and/or studio topic and invite Art Department faculty member to mentor group/topic. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Practicum. (3) Seminar, three hours; outside study, three hours. Focus on first-year teaching assistants development 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 Art Department. Designed for 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.
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:

1. Accurate identification of major works of art within periods, cultures, or genres comprising various art history subfields
2. Analysis of individual works of art using appropriate art historical terminology; and placement of them in their aesthetic, historical, and cultural contexts
3. Identification and characterization of significant artistic traditions from chronologically and culturally disparate societies
4. Conduct original research, employing appropriate art history theories and methods, and critical use of primary and secondary sources
5. 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 to UCLA: two art history courses in ancient, Renaissance and baroque, medieval, or modern art and two courses in African, Asian, or pre-Columbian art. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

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

3. Additional art history electives selected from courses 100 through 185 (20 units minimum); courses 196, 197A, and 197B may also be included. With prior approval of the undergraduate adviser, one of these courses may be taken in another department

While the department does not require language training beyond the College requirement, Art History majors, particularly those planning graduate work, are strongly encouraged to study foreign languages beyond what is required by the College.

Each course must be taken for a letter grade.

Honors Program

The honors program is designed for Art History majors who are interested in carrying out an independent research project that culminates in a departmental honors thesis of approximately 30 pages. The program gives qualified students the opportunity to work closely with individual professors on an in-depth supervised research and writing project. All senior Art History majors who have completed a minimum of six upper-division art history courses with a departmental grade-point
average of 3.5 or better and an overall GPA of 3.0 or better are eligible to apply. Consult the art history student affairs officer no later than the beginning of fall quarter of the senior year.

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

To qualify for graduation with highest honors, students must (1) complete all requirements for the major, (2) have a cumulative GPA of 3.85 or better in upper-division courses in the department and an overall GPA of 3.65 or better, and (3) complete courses 198A and 198B with grades of A.

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:


3. One 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 seminar must be taken for a letter grade (unless the course is graded 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. Introduction to study of architectural history through examination of built environments of the past two centuries. Building technologies and forms of economic, social, and political life have produced modern built environment that is both diverse and increasingly connected. Focus on factors that have affected architecture globally and those that give regions, 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.

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 of the past two centuries. Building technologies and forms of economic, social, and political life have produced modern built environment that is both diverse and increasingly connected. Focus on factors that have affected architecture globally and those that give regions, 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.

25. Art and Architecture of Ancient Americas. (5) 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.

26. Arts of Africa. (5) Formerly numbered 55A. Lecture, three hours; discussion, one hour; museum field trips. Introduction to arts and architecture of Africa. Examination of social and historical contexts of their production. Introduction to body of information within framework of conceptual problem through series of case studies. P/NP or letter grading.

27. Chinese Art. (5) Formerly numbered 56B. Lecture, three hours; discussion, one hour; museum field trips. General introduction to Chinese art, covering all major periods from Neolithic to modern age. Presentation of monuments as well as artifacts in variety of media in their social and historical contexts. P/NP or letter grading.

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 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) 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
M113C. Late Roman Art. (4) (Formerly numbered M102H.) (Same as Classics M153H.) Lecture, three hours. Requisite: course 20 or Classics 20 or 51B. Art of Roman Empire from 2nd through 4th century (AD). P/NP or letter grading.


C114D. Selected Topics in Ancient Art. (4) Lecture, three hours. Variable topics in ancient art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C218. P/NP or letter grading.

119A. Western Islamic Art. (4) (Formerly numbered 104A.) Lecture, three hours. From Tigris and Euphrates Rivers to Spain, 7th to 16th century. P/NP or letter grading.

119B. Eastern Islamic Art. (4) (Formerly numbered 104B.) Lecture, three hours. From Tigris and Euphrates Rivers through Afghanistan and parts of central Asia; Ottoman Empire. P/NP or letter grading.

M119C. Introduction to Islamic Archaeology. (4) formerly numbered Islamic Studies M111 and Middle Eastern Studies M111.) Lecture, three hours. From earliest monuments of Islam in Arabia and Jerusalem to humble remains of small Egyptian port, broad focus on archaeological and standing remains in central Islamic lands (primarily Syria, Egypt, and Iraq), Turkey, Iran, North Africa, and Spain. Profound cultural transformations occurred from birth of Islam to early Ottoman period in 16th and 17th centuries, which are traceable in material records. Assessment of effectiveness of tools afforded by historical archaeology to understand and interpret of past societies. P/NP or letter grading.


C120. Selected Topics in Islamic Art. (4) (Formerly numbered C104C.) Lecture, three hours. Variable topics in Islamic art and architecture that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C220A. P/NP or letter grading.

121A. Italian Renaissance Art of 14th Century. (4) (Formerly numbered 211A.) Lecture, three hours. Art and architecture of 14th century. P/NP or letter grading.


121C. Italian Renaissance Art of 16th Century. (4) (Formerly numbered 106B.) Lecture, three hours. Art and architecture of 16th century. P/NP or letter grading.

121D. Late Renaissance Art: Counter-Reformation. (4) (Formerly numbered 106D.) Lecture, three hours. Requisite: course 22. Painting, sculpture, and architecture of late 16th and early 17th centuries considered in context of Counter-Reformation. P/NP or letter grading.

124. Northern Renaissance Art. (4) (Formerly numbered 106A.) Lecture, three hours. Requisite: course 22. Painting and sculpture in Northern Renaissance. P/NP or letter grading.

C125A. Southern Baroque Art. (4) (Formerly numbered C109A.) Lecture, three hours. Art and architecture of Spain or Italy, 17th to late 17th centuries. Concurrently scheduled with course C225. P/NP or letter grading.

C125B. Northern Baroque Art. (4) (Formerly numbered 109B.) Lecture, three hours. Requisite: course C125A. Art and architecture of Northern Europe, 16th to late 17th century. P/NP or letter grading.
trends following World War II in U.S. and Europe, covering abstract expressionism to pop art. Concurrently scheduled with course C231A. P/NP or letter grading. C119B. Contemporary Art, 1960s to 1970s. (4) Formerly numbered C150B.) Lecture, three hours. Requi- site: course 23. Painting, sculpture, and architecture in U.S. from the mid-1950s to the late 1960s. Concurrently scheduled with course C231B. P/NP or letter grading. C131C. Contemporary Art, 1980s to 1990s. (4) Formerly numbered C150C.) Lecture, three hours; discussion, one hour. Requisite: course 23. Study of politics of representation at end of century, covering dominant strategies and trends in postmodernist art. Concurrently scheduled with course C231C. P/NP or letter grading. 132. Selected Topics in Contemporary Art. (4) Formerly numbered 150D.) Lecture, three hours. Requi- site: course 23. Changing topics in contemporary art (post-1945) that reflect interests of individual regular and/or visiting faculty members. May be repeated once for credit. P/NP or letter grading. C133A. American Art before Civil War. (4) Formerly numbered C112A.) Lecture, three hours; painting, sculpture, and architecture in U.S. from the Colonial period through Civil War. Concurrently sched- uled with course C233A. P/NP or letter grading. C133B. American Art in Gilded Age, 1860 to 1900. (4) Formerly numbered C112B.) Lecture, three hours; Painting, sculpture, and architecture in U.S. from Civil War to turn of century. Concurrently scheduled with course C233B. P/NP or letter grading. C133C. American Art, 1900 to 1945. (4) Formerly numbered C112C.) Lecture, three hours; painting, sculpture, and photography in U.S. from 1900 to 1945. Concurrently scheduled with course C233C. P/NP or letter grading. C132D. Architecture in U.S. (4) (Formerly numbered 113A.) Lecture, three hours; discussion, one hour. Introduction to architecture built in U.S. over last 5,000 years. Architecture as vehicle for political and cultural authority, citizenship, ethnic and social identity; its role in defining place and our relationship to natural environment and as vehicle for asserting human con- trol over natural world; its place in world of work and commerce; and its status as professional and aes- thetic pursuit. P/NP or letter grading. C133E. American Houses. (4) (Formerly numbered 113C.) Lecture, three hours. Many historians consider single-family houses to be one of two most American contributions to the world (the other being skyscrapers). Examination of this claim critically by placing single-family houses in broader context of varied dwellings built and occupied by residents of present-day U.S., including both aesthetically ambitious houses and ordinary (or ver- nacular) ones, houses of indigenous groups and those of immigrants of many sorts, urban and rural houses, and single-family houses and multiple dwell- ings of all sorts. Offers ways to think about houses we occupy and to understand how they relate to major themes in history of American architecture. P/NP or letter grading. CM135A. African American Art before 1900. (4) (Formerly numbered CM112D.) Same as African American Studies CM135A.) Lecture, three hours. De- tailed inquiry into art to circa 1800 of African Amer- ican artists whose works provide insightful and critical commentary about major features of American life and society. Concurrently scheduled with course CM235A. P/NP or letter grading. CM135B. African American Art, 1900 to 1963. (4) (Formerly numbered CM112E.) Same as African American Studies CM135B.) Lecture, three hours. De- tailed inquiry into work of African American artists from Southern U.S. to 1963. Explores exhibitions and Washing- ton within context of social, political, and cultural engagement, as well as in codification of modern black life in U.S. Concurrently scheduled with course CM235B. P/NP or letter grading. 137. Arts of Native North America. (4) (Formerly numbered 118D.) Lecture, three hours. Survey of painting, sculpture, and other arts from Inuit to peo- ples of Caribbean and Southwestern U.S. P/NP or letter grading. CM139A. Latin American Art and Architecture. (4) (Formerly numbered C139A.) Same as Chicana and Chicano Studies M137.) Lecture, three hours. Requisite: course 27. Study of art of selected Maya-speaking cultures of southern Mexico from about 2000 BC to Conquest, with particular emphasis on history and iconography. Concurrently scheduled with course C239A. P/NP or letter grading. C139B. Aztec Art and Architecture. (4) (Formerly numbered C117D.) Lecture, three hours. Requisite: course 27. Painting, sculpture, architecture, and other arts of Nahautl-speaking peoples of central Mexico, with emphasis on their social and historical context and major scholarly debates. Concurrently scheduled with course C239B. P/NP or letter grading. CM139C. Inca Art and Architecture. (4) (Formerly numbered 117F.) Lecture, three hours. Exploration of art, architecture, and urbanism of Incas from their em- pire’s height in late 15th century to their political and cultural fragmentation during Spanish occupation of Andes (1532 to 1824). Concurrently scheduled with course C239C. P/NP or letter grading. CM140C. Selected Topics in African and Indigenous Amer- icas. (4) Lecture, three hours. Variables in artistic traditions of Native people across Americas that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C240A. P/ NP or letter grading. C141. Colonial Latin American Art. (4) (Formerly numbered 117E.) Lecture, three hours. Art and archi- tecture of colonial Americas from 16th to 18th cen- tury. Concurrently scheduled with course C241. P/NP or letter grading. C142A. Mexican Art in Modern Age. (4) (Formerly numbered C110L.) Lecture, three hours. Mexican art of 19th and 20th centuries, from foundation of academy in 1785 to present day. Study of art and rev- olution, muralism, surrealism, indigenism, postcolo- nialism, and postmodernism in painting, sculpture, prints, photography, and architecture. Concurrently scheduled with course C242A. P/NP or letter grading. C142B. Latin American Art of 20th Century. (4) (Formerly numbered C110H.) Lecture, three hours; discussion, one hour (when scheduled). Survey of modern and contemporary art and architecture of se- lected Latin American countries, including both mod- ernist and postmodernist forms, considered in con- text of social and political changes in Latin America and international. Concurrently scheduled with course C242B. P/NP or letter grading. 143. Selected Topics in Latin American Art. (4) Lecture, three hours. Variable topics in Latin American art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. P/NP or letter grading. C144. Caribbean Art. (4) (Formerly numbered 118B.) Lecture, three hours. Cultural history of Caribbean. P/NP or letter grading. C145A. Architecture and Urbanism in Africa. (4) (Formerly numbered C119D.) Lecture, three hours. Survey of African built environment at various mo- ments from different places in Africa from 1st century BC to present, with emphasis on cultural, social, and histor- ical contexts of architecture, gender, and space, and contemporary African cities. Concurrently scheduled with course C245A. P/NP or letter grading. C145B. Contemporary Arts of Africa. (4) (Formerly numbered C119C.) Lecture, three hours; discussion, one hour (when scheduled). Survey of African visual practices since mid-20th century, with special em- phasis on changing meaning of art object, status of African artist, global reception of contemporary Af- rican art, and very definitions of contemporary African art. Concurrently scheduled with course C245B. P/NP or letter grading.

C148A. Art and Material Culture, Neolithic to 21st 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 C254A. 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 Han period, impact of Buddhism (e.g., temples), rise of new media and technologies. Concurrently scheduled with course C242B. 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, wood and bamboo serving, 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, sculpture, and architecture. Concurrently scheduled 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 C242E. 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 C115J.) 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 C249A. P/NP or letter grading.


150B. Advanced Japanese Art. (4) (Formerly numbered C115C.) Lecture, three hours. Requisite: course 150A or consent of instructor. Composition and sculpture. Concurrently scheduled with course C250. 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.

152A. 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 contemporary 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 19th century with special emphasis on 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 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 C252D. P/NP or letter grading.

C153. Selected Topics in Korean Art. (4) (Formerly numbered C140D.) Lecture, three hours. Limited to juniors/seniors. Korean painting and/or ceramic art that reflect interests of individual regular and visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C253A. P/NP or letter grading.

154A. Early Art of India. (4) (Formerly numbered 114A.) 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.

154B. 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.

154C. Advanced Indian Art. (4) (Formerly numbered C115A.) Lecture, three hours. Requisite: course 154A. Study in Indian sculpture and architecture. Concurrently scheduled with course C254A. P/NP or letter grading.

154D. Modern and Contemporary South Asian Art. (4) Lecture, three hours. 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.

156. Arts of Southeast Asia. (4) (Formerly numbered 114E.) Lecture, three hours. Not open to freshmen. Southeast Asian art from its beginning in prehistory through 19th century. Study of art of Southeast Asia from 10th century through 19th century, with special emphasis on Buddhist iconography and relationships between sculpture, painting and architecture. 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 techniques to run museum and create exhibit. Introduction to different types of museum work, ranging from collecting and curation, to research, conservation, presentation, visualization, and evaluation. 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 obligation and how objects and their arrangement convey deliberate or accidental messages. Consideration of audiences as well as historical and contemporary perspectives, with regard to traditional and contemporary East Asian cultural and political interrelations. P/NP or letter grading.
Graduate Courses

210. Art Historical Theories and Methodologies. (4) Seminar, three hours. Critical examination of his-
tory of discipline of art history, evidences or various theoretical, critical, and methodological approaches
to visual arts from antiquity to present. May be re-
peated for credit with consent of adviser. S/U or letter
grading.

211. Topics in Historiography of Art History. (4) Seminar, three hours. Critical examination of historio-
graphic 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.

212. Topics in Theory and Criticism in Art History. (4) Seminar, three hours. Focused studies of various
theoretical and critical traditions within art history,
centering on particular issues, authors, or meth-
odologies either within or across historical and cul-
tural areas. May be repeated for credit with consent of
adviser. S/U or letter grading.

213. Topics in Architectural History and Theory. (4) Seminar, three hours. Focused studies of various the-
etorical and critical traditions within architectural his-
tory, concentrating on particular issues, authors, or
methodologies either within or across historical, geo-
graphic, and cultural areas. May be repeated for
credit with consent of adviser. S/U or letter grading.

217. Byzantine Art, Architecture, and Archaeology. (4) Seminar, two hours. Selected topics in Byzan-
tine art and architecture. May be repeated for credit
with consent of adviser. S/U or letter grading.

218. Selected Topics in Medieval Art. (4) Lecture, three hours. Variable topics in medieval art that
reflect interests of individual regular and/or visiting faculty
members. May be repeated twice for credit.

220. Advanced Studies in Islamic Art. (4) (Formerly numbered 221.) Lecture, three hours. Variable
topics in Islamic art and architecture that reflect inter-
est of individual regular and/or visiting faculty
members. May be repeated twice for credit.

225. Southern Baroque Art. (4) (Formerly numbered 220A.) Lecture, three hours. Art and architec-
ture of Spain or Italy, 16th to late 17th century. Con-
currently scheduled with course C212A. S/U or letter
grading.

226. Selected Topics in Early Modern Art. (4) Lecture, three hours. Variable topics in early modern
art that reflect interests of individual regular and/or
visiting faculty members. May be repeated twice for credit.

215F. Medieval Paris. (4) Lecture, three hours. En-
forced requisite: course 21. Material culture, art, ar-
chitecture, and history of city of Paris to circa 1500.
Concurrently scheduled with course C115F. S/U or letter
grading.

and development of Byzantine art from iconoclastic
controversy to 1204. Concurrently scheduled with
course C115A. S/U or letter grading.

216B. Late Byzantine Art and Architecture. (4) Lecture, three hours. Theory and development of Byz-
antine art from 1204 to 1453. Concurrently scheduled
with course C116B. S/U or letter grading.

217A. Medieval Archaeology. (4) Lecture, three hours. Archaeology of medieval world. Concurrently
scheduled with course C117A. S/U or letter grading.

217B. Selected Topics in Medieval Art. (4) Lecture, three hours. Variable topics in medieval art that
reflect interests of individual regular and/or visiting faculty
members. May be repeated twice for credit.

217C. Medieval Art. (4) (Formerly numbered 225.) Lecture, three hours. Studies in medieval art and
architecture of Byzantine and European medieval art. May be repeated for credit with consent of adviser.
S/U or letter grading.

217D. Byzantine Art, Architecture, and Archaeology. (4) Seminar, two hours. Selected topics in Byzan-
tine art and architecture. May be repeated for credit
with consent of adviser. S/U or letter grading.

221. Selected Topics in Armenian Art. (4) (Formerly numbered 231.) Lecture, three hours. Variable
topics in Armenian art and architecture that reflect inter-
est of individual regular and/or visiting faculty
members. May be repeated twice for credit.

222. Advanced Studies in Islamic Art. (4) (Formerly numbered 213.) Seminar, three hours. Monu-
ments or theoretical problems related to Islamic cul-
ture and artistic production. May be repeated for
credit with consent of adviser. S/U or letter grading.

222A. Italian Renaissance Art. (4) (Formerly numbered 230.) Seminar, two hours. Preparation: knowl-
edge of German. Emphasis on selected topic (e.g., parti-
cular artist, trend, or problem). Research papers and oral reports required. May be repeated for
credit with consent of adviser. S/U or letter grading.

224. Northern Renaissance Art. (4) (Formerly numbered 235.) Seminar, two hours. Preparation:
knowledge of German. Emphasis on selected topic (e.g., partic-
ular artist, trend, or problem). Research papers and oral reports required. May be repeated for
credit with consent of adviser. S/U or letter grading.

225B. Early Modern Art. (4) (Formerly numbered 240.) Seminar, three hours. Emphasis on selected
topic (e.g., particular artist, trend, or problem). Re-
search papers and oral reports required. Language
requirements depend on area of focus. May be re-
peated for credit with consent of adviser. S/U or letter
grading.

226. Selected Topics in Early Modern Art. (4) Lecture, three hours. Variable topics in early modern
art that reflect interests of individual regular and/or
visiting faculty members. May be repeated twice for credit.

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245B.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 C261E.) Lecture, three hours. Variable topics chosen to reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C149B. S/U or letter grading.

249B. Chinese Art. (4) (Formerly numbered 260B.) Seminar, three hours. Advanced studies in secular and religious artistic traditions of China. May be repeated for credit with consent of adviser. S/U or letter grading.


C251A. Selected Topics in Japanese Art. (4) Lecture, three hours. Variable topics in Japanese art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C151A. S/U or letter grading.

251B. Japanese Art. (4) (Formerly numbered 260C.) Lecture, three hours. Advanced studies in secular and religious artistic traditions of Japan. May be repeated for credit with consent of adviser. S/U or letter grading.


C252B. 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 technical and stylistic developments. Concurrently scheduled with course C152C. S/U or letter grading.

C252C. History of Korean Buddhist Art. (4) (Formerly numbered C242C.) 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 C152C. S/U or letter grading.

C253A. Selected Topics in Korean Art. (4) (Formerly numbered C242D.) Lecture, three hours. Variable topics in Korean art that reflect interests of individual regular and/or visiting faculty members. May be repeated for credit. Concurrently scheduled with course C153A. 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.

254A. Advanced Indian Art. (4) (Formerly numbered 257.) Lecture, three hours. Requisite: course 154A. Study in Indian sculpture and architecture. Concurrently scheduled with course C154C. S/U or letter grading.

254B. Modern and Contempory South Asian Art. (4) (Formerly numbered 280C.) 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 C155A. S/U or letter grading.

255B. Indian Art. (4) (Formerly numbered 260A.) 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 and current 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.

M259B. Topics in Asian Archaeology. (4) (Formerly numbered 262B.) Lecture, two hours. Special emphasis on diverse areas of study related to the artistic and religious artistic traditions of China. Requisite: course C259A. S/U or letter grading.

C260A. Art and Empire. (4) (Formerly numbered C280A.) Lecture, three hours. Examination of relationship between art and imperial ideologies and introduction to current issues in colonial studies and post-colonial criticism. Concurrently scheduled with course C160A. 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 museumology as critical practice, with emphasis on history and theory of museums and curatorial and museum-related aspects of curatorial practice and theory. Concurrently scheduled with course C170A. S/U or letter grading.

C270B. Museum Studies Practicum. (2 to 4) (Formerly numbered C203C.) 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 anthropologists, archaeologists, and art history graduate students. Introduction to preservation of cultural heritage materials, including those that should be preserved and why, as well as who should be involved in conservation decision-making process. Discussion of issues of preservation and restoration of these cultural heritage materials both in museum and outdoor environment contexts. Materials and techniques used to make cultural heritage materials, in relation to preservation efforts needed to prevent decay and loss. Introduction to expendables and conservation issues associated with buildings, monuments, and collections. Ethical and contextual issues 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 in historical concept of authenticity. Description of many examples of proved related to this concept in series of discussions based on objects from variety of cultures. Introduction to subject of fakes and account of three different areas of connoisseurship that are essential component of production, study, and scientific examination of fakes. Nature of art connoisseurship described in many examples from Renaissance and early modern paintings and panel paintings as well as African and traditional African arts. Background of art restoration and art conservation discussed in relationship to authenticity and technical studies. Scientific tools that form basis for further understanding. Described in terms of dating techniques that can be applied directly to works of art and technical methods by which material constituents of works of art are studied. Concurrently scheduled with course C172B. S/U or letter grading.

C272D. Teaching with Technology. (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.

245. Teaching Art History. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Designated for graduate students. Required of all teaching assistants during Fall Quarter of their teaching assistant appointment. Workshop/seminar in teaching techniques and pedagogical issues, with an emphasis on developing skills necessary for efficient communication with students. May not be applied toward MA or PhD course requirements. S/U grading.

C265. Teaching and 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 chosen to encompass activities 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 Ph.D 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 adviser. 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**

3332 Rolfe Hall
Box 957225
Los Angeles, CA 90095-7225

**Asian American Studies**

310-267-5592

**Viktor Bascara, PhD, Chair**

**Professors**

- Mitchell J. Chang, PhD
- King-Ko Cheung, PhD
- C. Cindy Fan, PhD
- Gilbert C. Gee, PhD
- Grace Kyungwon Hong, PhD
- Jerry Kang, JD (Korea Times-Hankook Ibo Professor of Korean American Studies and Law)
- Vinay Lai, PhD
- Anna S. Lau, PhD
- Jingi Ling, PhD
- Purnima Mani, PhD
- Valerie J. Matsumoto, PhD (George and Sakaye Aratani Professor of Japanese American Incarceration, Redress, and Community)
- Vinit Mukhi, PhD
- Shu-me Shih, PhD
- Renee E. Tajima, Ph.D. (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 Hirabayashi, PhD (George T. and Sakaye I. Aratani Professor Emeritus of Japanese American Incarceration, Redress, and Community)
- Marijoe Kagawa-Singer, RN, PhD
- Sheeho K. Kat, 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
- Kye Young Park, PhD
- Thomas M. Philipp, PhD
- Robert Chao Romero, JD, PhD

**Assistant Professor**

- Michelle L. Caswell, PhD

**Artistic and Architecture**

**School of the Arts and Architecture**

2200 Broad Art Center
Box 951620
Los Angeles, CA 90095-1620

**School of the Arts and Architecture**

310-206-3564

**School e-mail**

**Scope and Objectives**

There is no major in arts and architecture; however, the following courses are part of the schoolwide curriculum.

**Arts and Architecture**

**Lower-Division Courses**

10. Arts Encounters: Exploring Arts Literacy in 21st Century. (5) Lecture, four hours; discussion, one hour; field trips, three hours; outside study, seven hours. Through series of direct encounters with art and artists across global range of practices, course equips students with kinds of critical skills that enhance their understanding of, and sharpen their appetite for, wide range of artistic practices. Attendance at performance/art events outside normal class schedule is mandatory. 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 expert in that area. May be repeated for a maximum of 8 units. 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.

**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.

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- 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, diverse experiences, and histories of Asian and Pacific Islander Americans. The topical range of such examination includes community work and development, cultural production (including digital media and creative expression), gender, and generational dynamics, immigration and diaspora, political participation, social activism, and transnational encounters.

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

**Undergraduate Study**

The Asian American Studies major is a designated capstone major. Students are required to complete either a community-based applied...
team research project or an independent scholarly or creative expression project. Those who select the community-based project are expected to use their scholarly knowledge and analytical skills to examine problems facing Asian and Pacific Islander American populations, think creatively and innovatively about evidence-based solutions, and to produce reports that benefit community stakeholders. Those who select to design and complete an independent scholarly or creative expression project pursue a key idea or theme of personal interest that is related to their prior coursework and to the experiences and realities of Asian and Pacific Islander Americans. Through their capstone work, all students are expected to demonstrate their skills in using and synthesizing knowledge gained in disparate courses and communicating effectively their findings and conclusions in a final paper, report, or project and in a public forum.

Asian American Studies BA

Capstone Major
The BA program in Asian American Studies provides a general introduction for students who anticipate advanced work at the graduate level or careers in research, public service, and community work related to Asian and Pacific Islander Americans. An overall grade-point average of 2.0 or better is required for admission to the major.

Learning Outcomes
The Asian American Studies major has the following learning outcomes:

- Skills in and critical appreciation for textual, library, archival, visual, creative, and fieldwork-based qualitative and quantitative research, including ways of identifying and accessing diverse resources
- Skills in and critical appreciation for comparative, relational, and intersectional understanding of group formation and dynamics, group differences and commonality, and individual identity within groups
- Skills in and critical appreciation for individual and collective agency, civic and political engagement, and engaged scholarship’s role in social change
- Skills in and critical appreciation for historical contextualization including approaches to the rise of new groups, identities, and social movements in global, national, local, and other frameworks
- Skills in and appreciation for collective formations against forms of injustice, such as subordination and inequality

Preparation for the Major

Required: Two courses from Asian American Studies 10 or 10W, 20 or 20W, 30 or 30W, 40 or 40W, 50 or 50W.

Transfer Students
Transfer applicants to the Asian American Studies major with 90 or more units must complete as many of the following courses as possible prior to admission to UCLA: one lower-division Asian American Studies course or one course that focuses on Asian Americans.

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

The Major

Required: A total of 12 upper-division courses, including one scholarly and creative communications in Asian American Studies course (Asian American Studies 101); one multidisciplinary approaches course selected from 103 through M129, M161, M166B, M166C, M168, M172C, 187A, 191A, M191F; one creative expression course selected from 112C, 120, 121, 122B, C142A, C142B, C142C, M173; one diversity course selected from 115, M116, 120, 130A, M130B, M130C, 131A, 131B, 131C, 132A, 133, 134, 143B, M143C, M160, M164, M165, M166A, M169, 174A, 175A, 187C, 191C; one global/transnational perspectives course selected from 122A, 123, M163, M164, 170, 171A, 171B, 171C, M171D, 171E, M172A, 172B, M172C, 174B, 175B; one engaged scholarship 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 195, 197, 198, and 199 may be applied toward the major. Courses 192 and 196 may not be applied toward the major.

Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), each must be at least 4 units, and students must have an overall grade-point average of 2.0 or better.

Honors Program
Through the Asian American Studies honors program, Asian American Studies majors undertake a year-long thesis or its equivalent with the guidance and supervision of a faculty member. Successful completion of the departmental honors program is indicated on the transcript. For additional information about the departmental honors program, contact the undergraduate academic adviser.

Admission
The honors program is open to junior and senior Asian American Studies majors who have (1) 90 or more total units, (2) a grade-point average of 3.5 or better in upper-division Asian American Studies courses and an overall cumulative GPA of 3.0 or better, and (3) completed two lower-division Asian American Studies courses.

Requirements
Honors students must take the Asian American Studies 198A, 198B, and 198C sequence in which they write a thesis or its equivalent under the direction of a faculty member.

Asian American Studies Minor
The Asian American Studies minor is designed for students who wish to gain understanding of and competence in Asian American Studies. To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed two lower-division Asian American Studies courses, and file a petition with the 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):

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

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), each must be at least 4 units, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

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

Graduate Degrees
The Department of Asian American Studies offers the Master of Arts (MA) degree in Asian American Studies. Two concurrent degree programs (Asian American Studies MA/Public Health MPH and Asian American Studies MA/Social Welfare MSW) are also offered.
Asian American Studies

Lower-Division Courses

10. History of Asian Americans. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 10W. Multidisciplinary examination of history of Asians and Pacific Islanders in U.S. P/NP or letter grading.

10W. History of Asian Americans. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H 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 Written Expression requirement. Letter grading.

M18. Leadership and Student-Initiated Retention. (2) (Same as African American Studies M18, American Indian 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 M168. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, services, and student organizations. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Contemporary Asian American Communities. (5) Lecture, three hours; discussion, one hour. Multidisciplinary introduction to contemporary Asian American populations and communities in U.S. Topics include contemporary immigration, demographic trends, sociocultural, economic, and political issues, and interethnic relations. P/NP or letter grading.

20W. Contemporary Asian American Communities. (5) Lecture, three hours; discussion, two hours. 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 as a Second Language 36. 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. 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 50W. Overview of history of feminist theory and intersection of gender, class, race/ethnicity from cross-cultural perspectives, with focus on Asian American women's lived experiences in U.S. Topics include Asian American women's roles in family life, work, community organization, social change, and cultural creativity. Examination of broader structural forces that affect women in society, such as racialization, immigration, global capitalism, colonialism and postcolonialism, and social movements. Satisfies Writing II requirement. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual contract between instructor and student to 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 (su- pervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students with direction 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. Three hours; discussion three hours. Requisites: course 10 or 20W, and either (or both) 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 and engage 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 undergraduates/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.

20A. Field Studies Method in Asian Pacific Communities. (4) Lecture, three hours. Preparation: one course from 101 through M191F. Development of community profiles on Asian Pacific American communities of students' choice, using various field study techniques of data collection, P/NP or letter grading.

20A-B. Internships in Asian Pacific Communities. (4) Fieldwork, eight hours minimum. Requisite: course 20A or another Asian American studies course (except 199). Integrates academic and empirical work by providing students challenging public service and community work in Asian Pacific or other multicultural communities, and of bringing their on-going 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 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) Seminar and Urban Planning 51 or 51H; 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, including wartime propaganda to political speeches, Supreme Court decisions, and protest culture, to evaluate relations between Asian American communities and colonialism, postcolonialism, and social movements. 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 or from thematically reflecting pre-1980 period. Issues include immigration, diaspora, gender, sexuality, and other cultural conflicts. Appropriation of cultural traditions, ethnic/gender formation, intertextual dynamics, and social movement. Works by such authors as Edith Eaton, Younghill Kang, Carlos Bulosan, Yoko Tawada, Wayne Yang, 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 post-1980 Asian American literature that explores key literary and critical issues, such as race and geography, aesthetics and activism, culture and immigration/labor, colonialism and national identity, 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 in- tense. 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/N/P or letter grading.

113. Asian American Studies. (4) Lecture, three hours; fieldwork, four hours. Survey of major federal and California case and legislative law directed specifically toward Asian Americans from 1850 to World War II and incarceration. Major subject areas include anti-Asian labor legislation, legal prohibitions against Asians’ right to testify, Executive Order 9066, and equal educational opportunity for Asians. P/N/P or letter grading.

M114. Asian American Education and Schooling. (4) (Same as Education M103.) Lecture, three hours; seminar, one hour. Examination of several dimensions of Asian American social movements, including grassroots, mass movement, character, political and social vision, and social and political issues. Focus on historical role of religion in Asian American communities, with emphasis on issues as they affect status of Pilipino Americans and their community. P/N/P or letter grading.

121. Exploring Asian American Theater. (4) Lecture, three hours; fieldwork, four hours. Use of digital video to create new approaches to visual storytelling, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Continuing instruction in use of digital technol- ogy and concepts. Topics include videography, composition, sound recording, interviewing technique, editing, and writing treatments. Completion of community-based documentary required. Concurrently scheduled with course C242A. P/N/P or letter grading.

C142A. Ethnocommunications I: Introduction to Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Introduction to social documentary theory and methodology. Through hands-on production, use of digital video to tell visual stories, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Viewing of films and interactive media for critique and discussion, guest speakers, brainstorming on use of digital video technology, and group and individual video projects. Concurrently scheduled with course C242A. P/N/P or letter grading.

C142B. Ethnocommunications II: Intermediate Creating Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Intermediate application of social documentary theory and methodology. Use of digital video to create new approaches to visual storytelling, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Continuing instruction in use of digital technology and concepts. Topics include videography, composition, sound recording, interviewing techniques, editing, and writing treatments. Completion of community-based documentary required. Concurrently scheduled with course C242B. P/N/P or letter grading.

M134A. Fieldwork in Asian American and Pacific Islander Communities. (4) (Same as Anthropology M138Q.) Lecture, three hours; discussion, one hour. Introduction to qualitative research methods and applica- tion of techniques in data collection, analysis, and reporting. Critical reflection of issues related to Pilipino Americans. Examination of historical and contemporary sociocultural, economic, and political issues as they affect status of Pilipino Americans and their community. P/N/P or letter grading.

134. Vietnamese American Experience. (4) Lecture, three hours. Not open to freshmen. Not open to students of immigration history, settlement patterns, and experiences of Vietnamese Americans. Examination of historical and contemporary sociocultural, economic, and political issues as they affect status of Vietnamese Americans and their community. P/N/P or letter grading.

140SL. Power to People: Asian American and Pacific Islander Community-Based Learning. (4) Lecture, three hours; fieldwork, four hours. Enforced prerequisite: course 10 or 20 or 40. Service-learning course to engage and critically examine community organizing and community-based organizations (CBOs) in Asian American and Pacific Islander communities related to issues such as arts and culture, community health, and applied research. P/N/P or letter grading.

141A. Asian American and Pacific Islander Leadership Development Project Part I: Leadership. (4) Lecture, three to four hours; fieldwork, four hours. Enforced prerequisite: course 141A. Limited to juniors/seniors. First term of two-term series on leadership development, with focus on intellectual and practical learning of leadership concepts, models, and skills. In Progress grading (credit to be given only on completion of course 141B).

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

C142A. Ethnocommunications I: Introduction to Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Introduction to social documentary theory and methodology. Through hands-on production, use of digital video to tell visual stories, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Viewing of films and interactive media for critique and discussion, guest speakers, brainstorming on use of digital video technology, and group and individual video projects. Concurrently scheduled with course C242A. P/N/P or letter grading.

C142B. Ethnocommunications II: Intermediate Creating Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Intermediate application of social documentary theory and methodology. Use of digital video to create new approaches to visual storytelling, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Continuing instruction in use of digital technology and concepts. Topics include videography, composition, sound recording, interviewing techniques, editing, and writing treatments. Completion of community-based documentary required. Concurrently scheduled with course C242B. P/N/P or letter grading.

M134A. Fieldwork in Asian American and Pacific Islander Communities. (4) (Same as Anthropology M138Q.) Lecture, three hours; discussion, one hour. Introduction to qualitative research methods and application of techniques in data collection, analysis, and reporting. Critical reflection of issues related to
identity, migration, multiculturalism, tourism, and indigenous rights. Field excursions and guest lecturers from local community included. Given in Hawai'i. P/NP or letter grading.

143B. Politics of Race, Ethnicity, Migration, and Multiculturalism in Hawai'i. (4) Lecture, three hours; discussion, one hour. Critical examination of historical and contemporary experiences of various people in Hawai'i. Investigation of historical, economic, and political contexts of migration and relations between indigeneous, migrant, 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 M117 and Chicana and Chicano Studies Colleumion M102.) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment, especially 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 also as a form of oppression, with focus on Filipinos, Vietnamese, Singaporean, and South Asian cultures. Letter grading.

M165. Race, Gender, Class. (5) (Same as Comparative Literature M175J) 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 M156A and Labor and Workplace 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 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. Study of role of immigrant students in discussion and legislative and policy issues that have emerged. Students conduct oral histories, family histories, research on immigration and immigrant rights movement, and development of action plans about immigrant experience, and work to collectively develop student publication on immigrant students in higher education. P/NP or letter grading.

M166B. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as Chicana and Chicano Studies M156B and Labor and Workplace Studies M156B) 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 M156C) 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. Designed around class project, where students work on showcasing all material collected throughout year. Letter grading.


M168. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as African American Studies M118, American Indian Studies M118, and Chicana and Chicano Studies M118) Lecture, four hours. Focus on student recruitment and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLAs as case. May be repeated twice for credit. Letter grading.

M169. Constructing Race. (4) (Same as African American Studies M159P and Anthropology M144P) Lecture, three hours. Recommended preparation: background in Asian Pacific American social and legal history. Designed for juniors/seniors. Examination of transformation of race in Asian America in last four decades as consequence of global economic restructuring and new immigration. Introduction to and survey of new frameworks for understanding these changes in postmodern Asian Pacific American communities, using theories of transnationalism and Asian American political and racial history. Readings and discussion on transnational aspects of Asian American literature and comparative topics in context of Asia/Asian American experience. Building of linkages between roots of social constructions of race and multiracial social processes that now constitute globalization. Theoretical readings assigned. P/NP or letter grading.

171A. Critical Issues in U.S.-China Relations. (4) Lecture three hours. Not open to freshmen. Critical examination of U.S. involvement in China, Hong Kong, and Taiwan including cultural, social, political, and socioeconomic factors that shape relations between China, Hong Kong, and Taiwan and U.S. Examination 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 relations, 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, political, and socioeconomic 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). Re Recommend preparation: M176C. Examination of complex intersectional relationships between U.S. colonialism, Filipinos, and church-music relations; popular film and U.S.; connections between women and society. P/NP or letter grading.


M172A. Indian Identity in U.S. and Diaspora. (Same as History M172A) 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 diasporas for popular culture. Letter grading.

172B. Gender in South Asian Communities at Home and Abroad. (4) Seminar, three hours. Examination of centrality of gender to histories and identities of men and women in South Asian diaspora 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 Asian public cultures. Theoretical approaches to study of South Asian in comparative frame and consideration of how transnational perspectives enable revisiting South Asian American experiences and to rethink relationships between South Asian American communities, diaspora studies, and area studies. P/NP or letter grading.

M172C. Transnational Bollywood. (4) Lecture, three hours. Not open to freshmen. Critical appreciation of popular Bollywood cinema materializations of 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 M155J) 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). Limited to juniors/seniors. Variable topics in selected comparative and international courses. P/NP or letter grading.

174B. Special Courses in Transnationalism and Diaspora Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in selected comparative and international courses. P/NP or letter grading.
175A. Topics in Comparative Race, Ethnicity, Gender, and Sexuality. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected comparative and international issues pertaining to transnationalism and diasporas. May be repeated for credit with topic change. P/NP or letter grading.

175B. Topics in Transnationalism and Diasporas. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected comparative and international issues on race, ethnicity, gender, and sexuality from a comparative perspective. May be repeated for credit with topic change. P/NP or letter grading.

185. Capstone Community-Based Research. (4) Seminar, one hour; fieldwork, three hours. Limited to senior departmental majors and minors. Designed to serve as complement to service learning requirement for major and minor and may be used to fulfill capstone requirement for major or minor. Students work as research team, are matched with one or more community groups, and must complete minimum of 40 fieldwork hours. Responsibilities collaboratively determined by instructor, students, and sponsoring organizations. Readings determined in consultation with instructor. Letter grading.

186. Capstone Seminar I. (Formerly numbered 187.) Seminar, three hours. Limited to senior departmental majors and minors. Synthesis and application of knowledge students have acquired through prior departmental coursework so they can conduct 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, then share and critique other student work in progress. Letter grading.

187A. Special Courses in Research Methodologies. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in multidisciplinary research methodologies in Asian American studies. May be repeated for credit with topic change. P/NP or letter grading.

187B. Special Courses in Asian American Themes. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in selected Asian American themes, including issues in cultural formation, religion, education, social class, economic development, social movement, politics, and public policy. May be repeated for credit with topic change. P/NP or letter grading.

187C. Special Courses in Asian American Populations and Communities. (4) Lecture, three hours; discussion (when scheduled). Limited to juniors/seniors. Variable topics in historical and contemporary issues pertaining to different Asian-origin subgroups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

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 independent readings, papers, or other activities and 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 through a greater depth through supplemental 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. Topics in Research Methodologies. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in multidisciplinary research methodologies in Asian American Studies. May be repeated for credit with topic change. P/NP or letter grading.

191B. Topics in Asian American Themes. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected Asian American themes, including issues in cultural formation, religion, education, social class, economic development, social movement, politics, and public policy. May be repeated for credit with topic change. P/NP or letter grading.

191C. Topics in Asian American Populations and Communities. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in historical and contemporary issues pertaining to different Asian-origin subgroups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

191F. Topics in Asian American Literature. (5) (Same as English M191F.) Seminar, three or four hours. Enforced prerequisite: English Composition 3 or 3H. Variable specialized studies course in Asian American literature. Topics may include genres (auto-biography, novel, poetry, short fiction, or drama); specific nationalities within Asian American community; themes of transnational migration; cross-cultural, interdisciplinary, or interstellar negotiation; and gender and queer politics. Reading, discussion, and development of culminating project. May be repeated for credit with topic or instructor change. P/NP or letter grading.

192. Undergraduate Practicum in Asian American Studies. (2 or 4) Seminar, two or four hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students in Asian American studies courses. Students assist in preparation of materials and development of innovative programs with guidance of faculty members in small course setting. 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. (4–4) Seminar, one hour; fieldwork, eight hours. Requisites: courses 10 or 10W, and 20. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic 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) As African American Studies M195CE, American Indian Studies M195CE, Chicana and Chicano Studies M195CE, and Gender Studies M195CE.) Tutorial, one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Comparative study of race, gender, and diligence in relation to contemporary workplace dynamics. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. Individual contract with supervising faculty member required. P/NP or letter grading.

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 upper-division students under guidance of faculty mentor to learn skills and techniques. May not be applied toward departmental major or minor requirements. May be repeated for credit. P/NP or 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 American studies, 3.0 grade-point average or better. Limited to juniors/seniors. Directed reading of scholarly work or supervised research between student and faculty member. No original research or project expected, 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 Studies. (4) Tutorial, three to four hours. Requisites: two courses from 10 (or 10W), 20, and 30 (or 30W) and one course from 104A through 1087, 187A, or 191A. Introduction to research techniques and applications of methodologies in study of Asian Pacific Islander students in the U.S. Development of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

198B-198C. Honors Research in Asian American Studies. (4–4) Tutorial, three hours. Requisites: course 198A. Course 198B is requisite to 198C. Development and completion of honors thesis in research project under direct supervision of faculty member. May be repeated for credit. Individual contract 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. Requisites: courses 10 (or 10W) and 20 or comparable knowledge in Asian American studies. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating research paper or project report required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Critical Issues in Asian American Studies. (4) Seminar, three hours. Designed for graduate students. Examination and development of critical appreciation of research literature on Asian 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. Evaluation of contemporary theories and models of community for their appropriateness to understanding Asian Pacific American communities. Consideration of specific topics that explicate development, structure, and dynamics of Asian Pacific American communities in studying community issues and concerns. S/U or letter grading.


200D. Asian American Literature and Culture. (4) Seminar, three hours. Examination of questions arising from Asian American cultural and critical discourses. S/U or letter grading.


201B. Asian-American Jurisprudence. (215A) 3 or 215B.) Lecture, three hours. Course 215A is requisite to 215B. Designed for graduate students. Through judicial opinions, com-
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 (215B) grading.

222. Colonialism and Law in Pacific. (4) Seminar, three hours. Reading seminar on broad topics of colonialism and law. Survey of anthropological, historical, and legal studies of ways in which colonialism and law operate as methods of social control, order, and surveillance in 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 about community history, and examine social issues related to diverse peoples, cultures, and communities. Viewing of films and interactive media for critique and discussion. Focus on introduction to 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 approaches to visual storytelling, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Continuing instruction in use of digital technology and concepts. Topics include videography, composition, sound recording, interviewing techniques, visual storytelling, and editing. 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 experience, sending and receiving country perspectives, research and policy issues. S/U or letter grading.

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

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 equivalency 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.


ASIAN LANGUAGES AND CULTURES
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Scope and Objectives

The Department of Asian Languages and Cultures offers a wide range of courses in the languages, literatures, 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 department honors program. At the graduate level, the department offers highly selective PhD degree programs that train research scholars for academic careers in various fields of Asian culture, including literature, linguistics, film, religion, and history.

Courses for Nonmajors
The department offers many courses in which knowledge of Asian languages is not required. A current list is available on the Registrar’s course descriptions web page.

Undergraduate Study
The department offers one major in the study of Asian languages and linguistics—BA in Asian Languages and Linguistics, two majors in the study of Asian cultures—BA in Asian Humanities and BA in Asian Religions, and three majors in Asian literatures and cultures—BA in Chinese, BA in Japanese, and BA in Korean. Each course in the majors must be taken for a letter grade.

The department also offers two minors—Asian Humanities minor and Asian Languages minor. Each course in the minors must be taken for a letter grade.

Students considering a major or minor in the department should consult with the departmental undergraduate adviser as soon as possible in their university career, but in no case later than the point at which they are about to begin taking upper-division courses. Students should select courses to fulfill major or minor requirements in consultation with the undergraduate adviser. The approved list of courses for each category of major or minor requirements is available in the department office (290 Royce Hall) and on its website.

At least 24 upper-division units required for the majors must be completed successfully while in residence at UCLA.

Placement in Language Courses
Students are not placed in Chinese, Filipino, Hindi-Urdu, Indonesian, Japanese, Korean, Thai, and Vietnamese language courses automatically according to their years of previous study. Students with any prior knowledge or study of an Asian language who wish to take courses in that language at UCLA are required to take the appropriate departmental language placement examination (see the Schedule of Classes or department website for more information). The examination determines which course is most appropriate for the student’s current level of proficiency. Students who have obtained college credit for Asian language courses may not repeat those same courses for credit. Prospective majors who place out of the upper-division modern language requirement are expected to substitute an equivalent number of other units to be selected in consultation with the departmental undergraduate adviser.

Language Acquisition Courses
No credit is allowed for completing a less advanced course after successful completion of a more advanced Asian language course with focus on conversation, grammar, and/or composition.

Asian Humanities BA
Learning Outcomes
The Asian Humanities major has the following learning outcomes:
- Identification of major elements of cultures in Asia, with particular attention to chosen regions of expertise
- Assessment of the social contours of a given Asian society, and explanation of ways in which dynamics within communities and other social structures shape the course of events
- Understanding of the role that language and literature play in reflecting and influencing Asian societies, across time and different literary genres
- Formulation of effective written and oral arguments that address important themes and issues in Asian arts and cultures, in ways that are historically appropriate and relevant to particular contexts
- Conduct research on Asian languages, literatures, and other cultural elements, making effective and critical use of primary and secondary source materials
- Appreciation of the central place of religion in Asian cultures, with focus on chosen region of expertise and tradition of focus

Preparation for the Major
Required: Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one civilization course (e.g., Chinese 50, Japanese 50, 70, Korean 50, 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 or one introduction to linguistic analysis 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 Asian languages across time and different modes of communication
- Conduct research and formulate effective written and oral arguments that address important themes and issues in languages and cultures of Asia

Preparation for the Major
Required: Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one civilization course (e.g., Chinese 50, Japanese 50, 70, Korean 50, Southeast Asian 70) or one introduction to religions course (e.g., Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, Southeast Asian M60) within the department; and Linguistics 20.

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 or one introduction to linguistic analysis 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 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 China.

Japanese BA

Learning Outcomes

The Japanese major has the following learning outcomes:

- Demonstrated broad knowledge of Japanese cultural history from ancient times to the present
- Demonstrated specific skills and expertise, including research, analysis, and writing, of a specialized topic in 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 in modern or premodern language or texts selected from Japanese 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
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, M60W, Japanese 50, 70, Korean 50, M60, South Asian M60, Southeast Asian M60.

Required Upper-Division Courses (20 units):
Five courses in the department concerning Asian culture (e.g., film, folklore, history, linguistics, literature, mythology, religious studies).

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units must be taken in residence at UCLA.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

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

Graduate Degrees
The Department of Asian Languages and Cultures offers Master of Arts (MA), Candidate in Philosophy (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
Upper-Division Courses

100. Methods in Asian Linguistics. (4) Lecture, three hours; discussion, one hour. Research methodologies for dealing with Asian languages, with emphasis on philological, linguistic, and cultural contexts of written materials in their natural environments. Pre-requisite: course M60. P/NP or letter grading.


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

121. Field Methods in Asian Languages and Cultures. (3) Lecture, three hours. Required of all Asian language majors. Current issues in Asian language research: investigation of various themes in development of Asian languages, best practices for dealing with Asian languages, with emphasis on bibliographical, data, and professional resources. May be repeated for credit. P/NP or letter grading.

124. Teaching and Learning of Heritage Languages. (4) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Offered four times a year. Additional work in major East Asian languages to enhance and augment work assigned in course 120, including reading, writing, and other exercises in Chinese, Japanese, and Korean. P/NP or letter grading.


135. Asian Foodways across Borders. (4) Lecture, two and one half hours. Examination of Asian foodways from 19th century to present, looking at how Asian and Western foodways have impacted each other as they cross borders. Offers insight into how political, economic, and cultural forces of globalization manifest themselves in everyday life. Focus is on East Asian and Western cuisines, and analysis of cooking techniques, cultural and social significance of specific dishes. May be repeated for credit. 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 cross-cultural interpretations of Asian religious texts. Letter grading.

152. Tibetan Buddhism. (4) Lecture, three hours. Knowledge of Asian languages not required. Survey of thought and practices of Buddhism in Tibet from its beginnings to present. Letter grading.

155. Buddhism, Film, and Media. (4) Lecture, three hours; discussion, one hour (pre-requisite: course M60 or Religion 560A or M60W or Religion 560W). Examination of issues related to Buddhism in globalizing world, with focus on changing and diverse presentations of Buddhism in film, print, and new media. P/NP or letter grading.


162. Buddhist Meditation Traditions. (4) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. Survey of theory and practice of meditation in Buddhism from Theravada and Zen schools. Topics include various typologies of meditation, symbiotic relationship between body and soul, and soteriological processes by which doctrinal innovation prompts changes in meditative practice. Prerequisite. 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 Buddhist 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 Buddhism. Letter grading.

170C. 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, and political approaches. Readings of primary and secondary sources of modern scholarship. Concurrently scheduled with course C270. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as advanced to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities led by course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Inexpensive study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
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 opportunities 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 of a faculty instructor or teaching assistant. Responsibility for grading is assigned to department chair and graduate dean, and host campus instructor, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance of a faculty instructor or teaching assistant.

496A. 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.

496B. Computer Technologies for Teaching College-Level Japanese. (2) Lecture, two hours. Intended for current or potential teaching assistants in Japanese. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. May not be applied toward degree requirements. S/U grading.

496C. 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.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and supervision of regular faculty instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U 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. Grammar reviews, knowledge of idiomatic expressions, and both traditional and simplified characters. Completion of course qualifies for advanced placement course 6. 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. Introduction to relationship between Chinese language, society, and culture. Discussion of fundamental role that language plays in Chinese social life and cultural practices while simultaneously exploring how social changes impact ways in which Chinese language is organized. Main focus on language and thought patterns, language and gender, 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. From fiction to film, music to MTV, and cartoons to karaoke, probing of popular as it has manifested itself in Chinese society in the last two decades. Lecture, 10 hours; discussion, 10 hours. Recommended preparation: knowledge of Chinese language and culture for heritage speakers. Not open 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 analyzes for their linguistic features and social and cultural background. Readings, compositions, informal debates on topical issues, and oral presentations. P/NP or letter grading.

101A. 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. 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. P/NP or letter grading.

100. 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. 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. P/NP or letter grading.

80. Chinese Cinema: Pictures, Prisms, Products, Projections. (9) Lecture, two hours; discussion, one hour. Film-viewing, 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.

98HC. Honors Contracts. (1 Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Chinese Culture. (4) Lecture, three hours. Knowledge of Chinese language or culture not required. Course covers 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 maintain enrollment 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. (4–4–4) 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 coursework or research on China. Topics may be applied toward honors credit for eligible students. Not open for credit to students with credit for course M60W. 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.

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 Chinese practice over doctrine, 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 everyday religious practice over doctrine, and themes common to Buddhism, Daoism, and Confucianism. Satisfies Writing II requirement. Letter grading.

M57. Classics of Chinese Literature. (4) 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.

101A-101B-101C. Advanced Readings in Modern Chinese. (4–4–4) For courses 101A, 101B: lecture, two hours; discussion, two hours; for course 101C: lecture, three hours; discussion, one hour. Requisite for courses 101A, 101B: course 100C or 100 or Chinese placement test; for course 101C: 101B or Chinese placement test. Not open 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 analyzes for their linguistic features and social and cultural background. Readings, compositions, informal debates on topical issues, and oral presentations. Offered in summer only: P/NP or letter grading.

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 cultural social and written 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 cultural social and written 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.


103. Topics in Chinese Language and Culture. (4) Lecture, two hours; discussion, two hours. Recommended preparation: one to two years of college-level Chinese. Chinese language and culture for special purposes. Exploration of interdependent relation between Chinese language and culture. Introduction to basic concepts in sociocultural linguistics, discourse analysis, and technology to analyze Chinese language and cultural conventions expressed through
verbal and non-verbal linguistic devices. Major cover-
age 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; laboratory, one hour. Concurrently scheduled with course C107B 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 C257A-C257B. P/NP or letter grading.

108FL. Readings in Chinese Literature (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.

110A-110B-110C. Introduction to Classical Chinese, (4-4-4) Lecture, three hours; discussion, one hour. Enforced 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.

111A-110B-110C. Introduction to Chinese, (4-4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or Chinese placement test. Course 110A is an enforced requisite to 110B, which is 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. Enforced requisite: course 100C or Chinese placement test. Lectures and discussion of works of modern Chinese literature. Each course may be taken independently for credit. 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. Lectures 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. Enforced requisite: course 100C or Chinese placement test. Lectures and 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.

C135. Travel Writing in Premodern China. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100I or Chinese placement test. Exploration of travel writing in China, with focus on Chinese translations of works by native writers and by foreign visitors through centuries. Concurrently scheduled with course C235. 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. 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 assumptions and implications 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.


M153. Chinese Immigrant Literature and Film. (4) (Same as Asian American Studies M153B and Comparative Literature M161B.) Lecture, two hours; discussion, one hour. 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 postmodernist, nationalism, feminism, mass culture, and media. 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 film from China, Hong Kong, Taiwan, and Chinese diaspora. Examination of aesthetics, genres, directors and stars, other arts and media, and cultural and political histories. May be repeated 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 (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. Chinese and Chinese Popular Culture. 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 100I 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 100 BCE), with focus on invention of Confucian tradition (including Five Classics) and on defenses of that tradition against challenges from Mohists, Taoists, and other groups of thinkers. Service learning component includes meaningful work with community partners, such as local schools, selected in advance by instructor. Letter grading.

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, such as local schools, selected in advance by instructor. Letter grading.

176. Neo-Confucianism. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Examination of movement to revitalize and 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 myths, fairy tales, 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 Asian trade network in response to early global trade. Investigation based on archaeological and historical study of 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 global trade in medieval and early modern periods, porcelain production and trade with international piracy in traditional historiography presents new angle on understanding dynamics of early global trade and industries. 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 course instruction. 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 academic course instruction. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.


191B. Variable Topics Research Seminars: 20th-Century China and Taiwan. (4) Seminar, three hours. Designed for juniors/seniors. Research seminar on selected topics in modern and contemporary literature and culture from China and Taiwan. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

196. Ethnology in China. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Based on studies of cultural, historical, anthropological, and archaeological materials about China. Focus on how Chinese have been engaging themselves in fields of food eating and love making. Letter grading.

197. Chinese Etymology and Calligraphy. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 3. 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. Topics may include classical dictionaries; sinological indices; bibliographies of Chinese literature and art, and surveys of major excavations of sites of all periods. Letter grading.


199. Advanced Honors Seminars. (1) Seminar, three hours.限于20名学生。设计为与本科课程的辅助课程。探索在现有课程基础上的更深入研究，包括论文写作或其他学术活动。可应用于荣誉学分，满足资格要求。荣誉内容记录在成绩单上。P/NP或记等级。

189HC.荣誉合同课程。 (1) 导师指导课程，三小时。限于在学院荣誉计划内学生。设计为与本科课程的辅助课程。探索在现有课程基础上的更深入研究，包括论文写作或其他学术活动。可应用于荣誉学分，满足资格要求。荣誉内容记录在成绩单上。P/NP或记等级。

191A.变量主题研究研讨会：古典中国。 (4) 讲座，三小时。适合大三/四年级学生。在预现代中国文学、思想和文化方面的研究研讨课程。阅读、研究，发展及完成最终项目。可重复选修，记等级。

191B.变量主题研究研讨会：20世纪中国及台湾。 (4) 讲座，三小时。适合大三/四年级学生。在现代及当代文学和文化方面，中国与台湾的研讨会。阅读、讨论，及发展和完成最终项目。可重复选修，记等级。

189.高级荣誉研讨会。 (1) 研讨会，三小时。限于20名学生。设计为学术研讨会的辅助课程。探索在现有课程基础上的更深入研究，包括论文写作或其他学术活动。可应用于荣誉学分，满足资格要求。荣誉内容记录在成绩单上。P/NP或记等级。

189HC.荣誉合同课程。 (1) 导师指导课程，三小时。限于在学院荣誉计划内学生。设计为与本科课程的辅助课程。探索在现有课程基础上的更深入研究，包括论文写作或其他学术活动。可应用于荣誉学分，满足资格要求。荣誉内容记录在成绩单上。P/NP或记等级。

191A.变量主题研究研讨会：古典中国。 (4) 讲座，三小时。适合大三/四年级学生。在预现代中国文学、思想和文化方面的研究研讨课程。阅读、研究，发展及完成最终项目。可重复选修，记等级。

191B.变量主题研究研讨会：20世纪中国及台湾。 (4) 讲座，三小时。适合大三/四年级学生。在现代及当代文学和文化方面，中国与台湾的研讨会。阅读、讨论，及发展和完成最终项目。可重复选修，记等级。
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-245B. Seminars: Traditions, Chinese Narrative and Drama. (4–4) Seminar, three hours. Preparation: reading knowledge of colloquial and literary Chinese. Seminar topics alternate yearly between traditional narrative and drama, with emphasis on generic, hermeneutical, and historical approaches. Topics from narrative selected from genres from Chou through Ch'ing periods. Topics in drama selected from ts'ao-ch'ü and ts'ao-ch'ü. May be repeated for credit with consent of instructor. In Progress (245A) and letter (245B) grading.

C250A. 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. Concurrency scheduled with course C150A. Graduate students required to read primary materials in original Chinese. S/U or letter grading.

C250B. 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 narratives and fictions 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 formation and interactions. Exploration of important issues in context of imperial China, including order and chaos, self and other, desire and transcendence, gender norms and transgression, violence and justice. May be taken independently for credit. Concurrently scheduled with course C150B. Letter grading.

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.

C257. 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 critical thinking about topics. 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.

C275. Introduction to Chinese Thought. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Survey of Chinese thought as represented in Filipino films and/or literature. May be repeated for credit. 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 curricular topics in courses such as Discover UCL, P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

109. 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.

Filipino

Lower-Division Courses

1. Introductory Filipino. (5) Lecture, two hours; discussion, three hours. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Introductory Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

4. Intermediate Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Coverage 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. Coverage 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. Coverage 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.

Upper-Division Courses

100A. Advanced Filipino: Reading and Writing. (4) Lecture, three hours. Enforced requisite: course 6 with grade of C or better. Coverage of 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 literature. P/NP or letter grading.

109. Advanced Tutorial Instruction in Filipino. (2) Tutorial, two hours. Enforced 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,
or other activities and 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.

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 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.

109. Advanced Tutorial Instruction in Indonesian. (2) Tutorial, two hours. Requisite: course 6 or Indone- sian 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.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Indonesian

Lower-Division Courses

1. Introductory Indonesian. (5) Lecture, three hours; discussion, two hours. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/NP or letter grading.

2. Intermediate Indonesian. (5) Lecture, three hours; discussion, two hours. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Course of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/NP or letter grading.

3. Introductory Indonesian. (5) Lecture, three hours; discussion, two hours. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Course of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/NP or letter grading.

4. Intermediate Indonesian. (5) Lecture, five hours. Designed to expand language skills acquired in intro- duc- tory courses and to equip students with good command of communicative competence in Indone- sian. P/NP or letter grading.

5. Intermediate Indonesian. (5) Lecture, five hours. Designed to expand language skills acquired in intro- duc- tory courses and to equip students with good command of communicative competence in Indone- sian. P/NP or letter grading.

6. Intermediate Indonesian. (5) Lecture, five hours. Designed to expand language skills acquired in intro- duc- tory courses and to equip students with good command of communicative competence in Indone- sian. P/NP or letter grading.

7. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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.

Japanese

Lower-Division Courses

1. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Introduction to modern Japanese with attention to conversation, grammar, and written forms. Conversation drill based on material covered in class. P/NP or letter grading.

2. 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. Following the previous course, the student is led into more advanced study of the language, with a focus on conversation, grammar, and written forms. Conversation drill based on material covered in class. 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.

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. Following the previous course, the student is led into more advanced study of the language, with a focus on conversation, grammar, and written forms. Conversation drill based on material covered in class. 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 an emphasis on conversation, grammar, and written forms for those with some Kanji knowledge. Conversation drill based on material covered in class. P/NP or letter grading.

3. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2A or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 2. P/NP or letter grading.

4. Intermediate Modern Japanese. (5) Lecture, three hours; discussion, two hours. Requisite: course 3 or 3B 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. Conversation drill based on material covered in class. P/NP 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/NP 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/NP or letter grading.

8. Elementary Japanese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. 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/NP or letter grading.

10. Intermediate Modern Japanese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 3 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. Course equivalent to courses 4, 5, and 6. Reading in modern Japanese literature, with emphasis on comprehension and structural analysis. Offered in summer only. P/NP or letter grading.

11. Fiat Lux Freshman Seminars. (Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

192 / Asian Languages and Cultures

Oral and written business communication, social eti-quette in business conduct, Japanese economic and business climate, business law and regulations, external and internal, and business case studies. P/NP or letter grading.

105A-105B. Advanced Reading and Writing for Japanese-Heritage Speakers. (4–4) Formerly numbered 102A-102B. Lecture, three hours; discussion, one hour. Enforced prerequisite: Placement test. Not open to students who have taken 100 series 101 series, and/or 103 series courses or 104. Designed for advanced-level Japanese-heritage learners or nonheritage learners who are fluent in daily spoken Japanese. Introduction and early vocabulary knowledge of Kary, reading and writing, and honorific/humble style of Japanese. Each course may be taken independently for credit. P/NP or letter grading.

108FL. Special Studies: Readings in Japanese. (2) Seminar, two hours. Recommended preparation: with grade of C or better or Japanese Placement Test. Students must be concurrently enrolled in affiliated main course. Additional work in Japanese to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.

109. Advanced Tutorial Instruction in Japanese. (2) Tutorial, two hours. Requisite: course 100C or 100S or Japanese Placement Test. Tutorial and guided independent study to help students develop advanced proficiency in oral and written Japanese. May be repeated for credit. P/NP or letter grading.


110B. Introduction to Classical Japanese: Reading Proficiency. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 110A. Grammar and readings of selected premodern texts, P/NP or letter grading.


115A. introduction to Japanese Linguistics. (Same as Linguistics M116.) Lecture, three hours; discussion, one hour. Enforced requisite: course 3 or 8 or Japanese Placement Test. Introduction to Japanese grammar, including phonology, phonetics, syntax, semantics, and discourse pragmatics. Letter grading.


115E. 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 materials, 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.


130A-100B-130C. 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.


140A. Heian; 140B. Medieval; 140C, Edo.


C150. Topics in Japanese Literature and Philoso-
phy. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Discussion of philosophical questions such as existence, identity, value, technology, and identity in light of Japanese literary texts. Concurrently scheduled with course C250. Letter grading.

151. Japanese Literature in Translation: Modern. (4) (Collection of Myriad Ages, 8th cen-
tury. and Heian; 152. Fiction and Plays of Floating World. (4) Lecture, three hours; discussion, one hour. Requi-
site: English Composition 3 or 3H or one from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Survey of Japanese literature from 16th century to post-World War II. P/NP or letter grading.

154. Postwar Japanese Culture through Literature. (4) Lecture, three hours; discussion, one hour. Requi-
site: English Composition 3 or 3H or one from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Use of fiction and film to ex-
plore Japanese culture in postwar era in broad cross-
disciplinary and cross-cultural context. P/NP or letter grading.

155. Topics in Japanese Cinema. (4) Lecture, three hours; discussion, one hour; film viewing, two hours. Knowledge of Japanese not required. Critical and his-
torical examination of Japanese cinema. P/NP or letter grading.

156. Literature and Technology. (4) (Same as Comparative Literature M176.) Lecture, three hours. Knowledge of Japanese not required. Examination of representation of technology in 20th-century fiction. Discussion of impact of technology on shifting images of gender, subjectivity, and national identity. P/NP or letter grading.


C158. 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 materials, 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 Jap-


170. Japanese Tales of Supernatural. (4) Lecture, three hours; discussion, one hour. Knowledge of Ja-

171. Topics in Japanese Studies. (4) Lecture, three hours. Enforced requisite: course 100C or Ja-
P/NP or letter grading.

172. Fiction and Plays of Floating World. (4) Lecture, three hours; discussion, one hour. Enforced re-
quisite: course 50. Examination of broad selection of popular fiction and theater from late 17th to early 19th century, with focus on themes of floating world (ukiyoku) of entertainment, including kabuki, theater district, and realm of fiction. Letter grading.

174. Classical Japanese Poetry. (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 cen-

182. Japanese Folklore. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not re-
quired. Lectures/discussions on native religious rit-
uals (festivals) and observances of Japanese, with special emphasis on artisanship of Shinto, Shinto/Buddhist syncretism, and other non-
Buddhist belief systems. Concurrently scheduled with course C262. Letter grading.

187SL. Service Learning in Japanese Community. (4) Lecture, three hours; fieldwork, three hours min-
um. Enforced requisite: course 6. Service learning in Japanese community. Examination of scholary works on cultural and language factors between Jap-

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 credit 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. Di-
agnostic study with lecture course instructor. May be re-
ppected for credit with consent of instructor. Letter grading.
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. 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. Graded as A, B, C, D, or E. 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 prewar and postwar, with focus on only reading; students who need to improve other skills should take additional courses. S/U or letter grading.


C224A-224B. Seminars: Selected Topics in Japanese Discourse Linguistics. (4–4) Seminar, three hours. Lectures/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 Japane-
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 or letter grading.


50. History of Korean Civilization. (5) Lecture, three hours; discussion, one hour. Knowledge of Korean 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, and social impacts. P/NP or letter grading.

80. Introduction to Korean Cinema. (5) Lecture, three hours; discussion, one hour. Broad overview of Korean film history, from beginning of 20th century to present. 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 and with more research on Korea. Topics selected from many paths of discovery at UCLA. 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. In-depth 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/NP grading.

100A—100B—100C. Advanced Modern Korean. (4—4—4) Lecture, three hours; discussion, two hours. Recommended preparation: courses 101A, 101B, or 101C. Enforced requisite: course 100C or Korean placement test is enforced requisite to 101B; course 101B or Korean placement test is enforced requisite to 101C. Advanced readings and discussions of students pursuing coursework or research on Korea. Topics selected from magazines, journals, and books related to humanities and social sciences. P/NP (undergraduates), S/U (graduates), or letter grading.

107A-107B-107C. Professional/Academic Korean. (4–4–4) Lecture, and forms pertinent to professional or placement test. Concurrently scheduled with course 107A or Korean placement test is requisite to 107B; course 107B or Korean placement test is requisite to 107C. May not be taken concurrently with course 102A, 102B, or 102C. Development of professional and academic proficiency in oral and written Korean to understand 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. P/NP or letter grading.

107SL. Professional/Academic Korean and Community-Based Learning. (4) Lecture, three hours; fieldwork, two hours. Requisite: course 101C or Korean placement test. May not be taken concurrently with course 102A, 102B, 102C, 106A, 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.

108FL. Special Studies: Readings in Korean. (2) Seminar, two hours. Requisite: course 100C or Korean placement test. Students must be concurrently enrolled in affiliated main course. Additional work in Korean to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.

109. Advanced Tutorial Instruction in Korean. (2) Tutorial, two hours. Requisite: course 100C or Korean placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Korean. May be repeated for credit. P/NP or letter grading.


112. Seminar in Korean and Japanese Language and Culture. (4) Lecture, three hours; discussion, one hour. Recommended preparation: two years of Japanese 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.

140A. Reading in Modern Korean Literature. (3) Lecture, three hours; discussion, one hour. Requisite: course 100C or Korean placement test. English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Readings and discussion of major modern Korean literary texts. Each course may be taken independently for credit. Letter grading.


150. Korean Literature in Translation: Classical. (4) Lecture, three hours. Requisite: English Composition 3 or 3H 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.

151. Korean Literature in Translation: Modern. (4) Lecture, three hours; discussion, one hour. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Korean not required. Survey of 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 critical 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.


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, religious Sanskrit, or 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.

170. Topics in Korean Christianity. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Historical development of Christianity in Korea, beliefs and practices, impact of Christianity on modern Korean culture and society. Coverage varies. May be repeated for credit with consent of instructor. Letter grading.

175. Intellectual History of Premodern Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. General survey of Korea thought from earliest records to 19th century, including shamanism, Taejong, 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; discussion, one hour. Requisite: 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 requisite: course 101A or C105A or Korean placement test. In-depth study of modern Korean historical 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 Korean culture from historical/geographical perspective. Examination of human cultural imprint on land in religious, linguistic, rural, and urban landscapes.

182. 1894 Kabo Reforms: History at Crossroads of Civilizations. (4) Seminar, three hours. Knowledge of Korean not required. Examination of 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, performing folk arts, social folk custom, and material culture. P/NP or letter grading.

184A. Women in History: Premodern Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of premodern Korean history 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 such as changes in 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 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.


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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 experiences of World War II. Both were also divided after war between communist regimes in north and strongly anticommunist regimes in south. Each also experienced warfare after division and direct involvement of colonial powers 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. Designed as adjunct to study of Korean not required. Introduction to history, forms, and scholarship concerning folk religion in Korea. Exploration of forms and popular and folk religion in Korea, including shamanism, ancestor worship, and contemporary religions. Consideration of fortune-telling, geomancy, and spirit belief. P/NP (undergraduates), S/U (graduates), 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 for maximum of 4 units. Individual honors contracts 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 contracts required. Honors content noted on transcript. Letter grading.

191A. Variable Topics Research Seminars: Premodern or Early Modern Korean History. (4) Seminar, three hours. Research seminar on selected topics of interpretation in Korean history from earliest times through mid-19th century. Coverage varies from term to term and includes such topics as state formation, international relations, or surnames of capital city. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191B. Variable Topics Research Seminars: Contemporary Korean History. (4) Seminar, three hours. Research seminar on selected topics in modern Korean history. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

197. Individual Studies in Korean. (4) Tutorial, to be arranged. Limited to juniors/seniors and graduate students who desire more advanced or specialized instruction in Korean. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see undergraduate adviser. P/NP or letter grading.

Graduate Courses


203. Variable Topics in Korean Culture. (4) Seminar, three hours. Advanced course that explores Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, language, and society. May be repeated for credit. S/U or letter grading.

205A-205B. Reading Korean Academic Texts. (4–4) Lecture, three hours. Requisite: course 101C or Korean placement test. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage in Korean of materials on Korean history, culture, and society. May be taken independently for credit. Concurrently scheduled with courses C105A-C105B, S/U or letter grading.

206C. Reading Korean Academic Texts. (4) Lecture, three hours. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage in Korean of materials on Korean history, culture, and society. May be taken independently for credit. Concurrently scheduled with course C106C. S/U or letter grading.


211. Thought and Society in Modern Korea. (4) Discussion, three hours. Preparation: reading knowledge of Korean. Designed for graduate students. Critical examination of list of books central to field of modern Korean history, including such topics as Korean capitalism and communism, intellectual history, social movements, and Korean War. Letter grading.

212. 19th-Century Korea. (4) Seminar, three hours; discussion, three hours. Preparation: knowledge of Korean. Seminar exploring period of Sunjong in 1800 to annexation of Korea by Japan in 1910, including major historical scholarship on political, diplomatic, social, economic, intellectual, and cultural history. Letter grading.

215. Korean Literary History. (4) Lecture, three hours. Designed for graduate students. Critical history of development of traditional Korean literature, with emphasis on canon and ideology, literary systems, hierarchy of genres, rise of literary kinds and forms, periodization, and critical issues in literary history. One particular area of focus to be nationalist canon that governs literary studies in Korea and West. Letter grading.

220. Structure of Korean. (4) Lecture, three hours; discussion, two hours. Recommended preparation: two years of Korean, or one-year of Korean and some knowledge of linguistics, especially 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 currently scheduled with course CM120. Letter grading.

224A-224B. Seminars: Selected Topics in Korean Linguistics. (4–4) Seminar, three hours. Critical reading and discussion of selected topics in Korean functional linguistics (grammaticalization, discourse, pragmatics, sociolinguistics, syntax, morphology) and pedagogy. In Progress (224A) and letter (224B) grading.


230A-230B. Seminars: Literary Translation from Korean. (4–4) Seminar, three hours. Preparation: reading knowledge of Korean. In consultation with instructor, students select works to be translated. Devoted to skill of producing accurate and readable translations, with emphasis on problems and techniques unique to poetry and prose. At end of term, students expected to produce publishable translations. May be repeated once with consent of instructor. In Progress (230A) and letter (230B) grading.

235A-235B. Seminars: Topics in Modern Korean Literature. (4–4) Seminar, three hours. Preparation: at least five years of Korean. Recommended: reading knowledge of Chinese or Japanese. Readings in Korean literature, with an emphasis on critical issues in literary history. Study of selected period, movement, theme, or author of 20th-century Korean literature, with critical review of secondary works in Western and Korean languages. May be repeated for credit with consent of instructor. In Progress (235A) and letter (235B) grading.


272. Seminar: Korean Christianity. (4) Seminar, three hours. Coverage of representative scholars’ writings on history of Korean Christianity, with focus
on Protestantism. Issues include politics, identities of Korean Christians and Western missionaries, church growth and decline, medical, educational, literary, and woman's work, and Christianity's encounters with Korean religions, and foreign missions. S/U or letter grading.

274. Seminar: Readings in Korean Christianity. (4) Seminar, three hours. Reading of recent secondary sources of Christianity in Korea, covering doctoral dissertations, journal articles, book chapters, and books. Discussion includes recent scholarship. P/NP grade. Limited to graduate students. Honors content noted on transcript. Letter grading. 295A-295B. Seminars: Topics in Traditional Korean Cultural History. (4–4) Seminar, three hours. Preparation: reading knowledge of Korean or literary Chinese. Discussion and research on major topics in Korean cultural history, such as Confucianization of Korean society, Practical Learning movement of late Choson dynasty, or Korean reactions to Western enlightenment movements of 19th century. May be repeated for credit. In Progress (295A) and letter (295B) grading.

South Asian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M60. Religion in Classical India: Introduction. (5) (Same as Religion M60D.) Lecture, three hours; discussion, one hour. Introduction to religions of classical India—Vedic, Brahmanical, Hindu, Jain, and Buddhist—paying equal attention to change and continuity, with emphasis on chronological development. P/NP or letter grading.

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 credit. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for 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 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. Readings in Sanskrit. (4) Lecture, three hours. Requisite: course 110C. Extensive reading in such texts as books of BHAGAVAD GITA or comparable amount of other Sanskrit literature. May be repeated for credit with consent of instructor. P/NP (undergraduates), S/U (graduates), or letter grading.

150. Classical Indian Literature in Translation. (4) Lecture, three hours. Knowledge of Asian languages not required. Survey of some landmark texts of classical Indian literature from second millennium BCE into 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 Asian contemporary and traditional cinema. Film and literature may be repeated once for credit. P/NP or letter grading.

CM160. Buddhism in India. (4) (Same as Religion M161D.) Lecture, three hours; discussion, one hour. Knowledge of Indian languages not required. Overview of social and doctrinal history of Buddhism from its origin to its disappearance in India, based not only on texts but also on archaeo-, art historical, and inscriptions. Examination of both formal doctrine and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Concurrently scheduled with course CM260. Letter grading.

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. Knowledge of Indian languages not required. Examination of position and function of women in ancient India, primarily through study of key religious and legal texts. Topics include women's life cycle, relations between husband and wife, adherence to these ideals, especially in narrative literature. P/NP or letter grading.

185. Women and Gender in Ancient India. (4) Lecture, three hours. Knowledge of Indian languages not required. Examination of position and function of women in ancient India, primarily through study of key religious and legal texts. Topics include women's life cycle, relations between husband and wife, adherence to these ideals, especially in narrative literature. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to 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 credit. Honors content noted on transcript. P/NP or letter 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 110B. Characteristics of Vedic dialect and readings in Rig-Vedic hymns. Only course M222B may be repeated for credit. S/U or letter grading.

230. Selected Readings in Sanskrit Texts. (4) Lecture, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

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.


243. Translation Workshop: Premodern Sanskrit, Pali, and/or Prakrit Texts. (2) Seminar, two hours. Requisite: course 110C. Translation, grammatical analysis, and disulfication in some representative early Indian texts. S/U or letter grading.

C260. Buddhism in India. (4) Lecture, three hours; discussion, one hour. Knowledge of Indian languages not required. Overview of social and doctrinal history of Buddhism from its origin to its disappearance in India, based not only on texts but also on archaeological, art historical, and inscriptions. Examination of both formal doctrine and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Concurrently scheduled with course CM160. Letter grading.

Southeast Asian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M20. Visible Language: Study of Writing. (5) Same as Asian M20, Indo-European Studies M20, Near Eastern Languages M20, and Slavic M20. Lecture, three hours; discussion, one hour. Consideration of concrete means of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 4th millennium BC. While literate civilizations of Egypt, Indus Valley, China, and Mesopotamia left little evidence of corresponding earliest developments, their antiquity and, in case of China and Mesopotamia, their evident isolation mark these centers as loci of independent development in writing. Although writing may derive from earlier scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semiotic language representation. Origins and development of early non-rectangular writing systems. How Greco-Roman alphabet arose in 1st millennium BC and how it compares to other modern writing systems. P/NP or letter grading.

M60. Religious Traditions in Southeast Asia. (4) (Same as Religion M60E.) Lecture, three hours. Introduction to historical development and contemporary practice of religions in Southeast Asia. Examination of indigenous religious beliefs and major textually based religions introduced to Southeast Asia, including Hinduism, Buddhism, Islam, and Christianity. P/NP or letter grading.

70. Modern Southeast Asian Literature. (5) Lecture, three hours; discussion, one hour. Introduction to modern literatures of Southeast Asia. Designed to expose students to a range of literatures, predominantly novels and short stories, that were written across this region in response to dramatic changes caused by colonization and its aftermath. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
Upper-Division Courses

130. Topics in Southeast Asian Literature. (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. Lecture and discussion. 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. Lecture and discussion. 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 oral visual documents. Topics include literature, religion, folklore, cultural history, and society. P/NP or letter grading.

189. Advanced Honors Seminars. (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 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. P/NP or letter grading.

190. Advanced Honors Seminars. (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.

199. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Graduate Course

205. Southeast Asian Culture and History. (4) Seminar, three hours. Designed to expose graduate students to study of Southeast Asia in such areas as traditional culture, modernization, politics, and literature through modern literary texts. 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. Required course; 1 with grade of C or better. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Thai Scripts. (5) Lecture, five hours. Recommended prerequisite: speaking and listening skills in Thai and Thai Grammar I. Lecture and writing at introductory level. Completion of course 3 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. Flat Lux Freshman Seminars. (1) Seminar; one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by 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.

20. Thai Linguistics. (5) Lecture, two hours; discussion, three hours. 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.

21. Introductory Vietnamese for Heritage Learners. (2) 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, conversation, and polite forms. P/NP or letter grading.

22. Intermediate Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

23. Advanced Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of more advanced topics. 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.

24. Advanced Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Coverage of more advanced topics. 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.

25. Advanced Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 4 with grade of C or better. Coverage of more advanced topics. 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.

26. Advanced Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Coverage of more advanced topics. 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.

27. Advanced Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 6 with grade of C or better. Coverage of more advanced topics. 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.

28. Advanced Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 7 with grade of C or better. Coverage of more advanced topics. 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.

29. 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. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
3. Introductory Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3A. Introductory Vietnamese for Heritage Learners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2A with grade of C or better or Vietnamese placement test. Not open to students who have learned, from whatever source, enough Vietnamese to qualify for more advanced courses. Designed for Vietnamese-heritage learners who have some limited knowledge of Vietnamese or have had no formal instruction in Vietnamese. Emphasis on spelling, basic grammar, reading, writing, daily conversation, and polite forms. P/NP or letter grading.

3R. Introductory Vietnamese Reading and Writing. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Vietnamese. Training in reading and writing skills at elementary level, equivalent to completion of one year of Vietnamese. P/NP or letter grading.

4. Intermediate Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

5. Intermediate Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

6. Intermediate Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

8. Elementary Vietnamese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1, 2, and 3. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminated by many paths of discovery at UCLA. P/NP grading.

40. War in Vietnamese Popular Culture. (5) Lecture, three hours; discussion, one hour. Knowledge of Vietnamese not required. Focus on popular culture produced and consumed by, or about, people in Vietnam and diasporas. Materials include theoretical and other scholarly texts, as well as literature, music, visual art, films, and comics. Reading of scholarly writings for argument, date, and methods, and learning to apply theoretical frameworks in readings and lectures to analysis of popular cultural productions. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99H. 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 each; 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 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. (5) 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 affected and after war between communist regimes in north and strongly anticommunist regimes in south. Each also experienced warfare after division and direct involvement of U.S. during 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
Tina I. Treuda, PhD
Aradhna K. Tripathi, PhD

Assistant Professors
Daniele Bianchi, PhD
Jasper F. Kok, PhD
Andrew L. Stewart, PhD
Robert Eagle Tripathi, PhD

Lecturer
Jeffrey K. Lew, PhD

Adjunct Professors
Yi Chao, PhD
Randall R. Friedl, PhD
Lawrence W. Harding, PhD
Duane E. Waliser, PhD

Scope and Objectives
The atmospheric and oceanic sciences present a wide variety of problems of compelling scientific interest and increasing social concern. This is exemplified by efforts to improve air quality, depredations caused by severe storms and floods, attempts to control or modify weather phenomena, problems of long-range weather forecasts, climate change, and predictions, and expanding scientific frontiers into our outer atmosphere and atmospheres of other planets.

The Department of Atmospheric and Oceanic Sciences offers a broad curriculum in dynamic and synoptic meteorology, atmospheric physics and chemistry, and upper atmosphere and space physics.

The Bachelor of Science degree qualifies students for entry-level technical positions or represents valuable background for training in other professions. Master of Science and PhD degree holders work in universities, research centers, laboratories, and government services and, increasingly, in the rapidly burgeoning private sector.

Undergraduate Study
The Atmospheric and Oceanic Sciences/Mathematics major is a designated capstone major. Students acquire experience in conceiving and executing research projects designed to evaluate hypotheses and complete an individual project or thesis selected with the assistance of the program advisers and faculty mentor. The topic should reflect integrative application of mathematics to atmospheric and oceanic sciences. Students are expected to prepare a significant independent piece of work that applies knowledge gained in their coursework in a new and unique way.

Atmospheric and Oceanic Sciences BS

Learning Outcomes
The Atmospheric and Oceanic Sciences major has the following learning outcomes:

- Display mastery of basic principles and tools of science: calculus, physics, chemistry, computer programming, and writing
- Display fundamental understanding of atmospheric and oceanic sciences
- Demonstrated analytical and mathematical skills through application of learned concepts and tools to solve theoretical, computational, and empirical problems
- Ability to apply knowledge to independently identify, analyze, and understand real-world problems and issues
- Demonstrated effective oral and written communication of results and conclusions of investigative work

Preparation for the Major
Required: Atmospheric and Ocean 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 Ocean 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:

- Demonstrated mastery of the basic principles and tools of science
- Demonstrated fundamental understanding of the atmospheric and oceanic sciences
- 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 Ocean 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 Ocean Sciences 101, 102, 103, 104, M105, and three elective courses selected from the five listed above (if not taken to satisfy the core requirement) or from C110, C115, M120, 130, 145, C160, C170, 180.

One capstone senior projects/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
• Demonstrated analytical and mathematical skills through the application of learned concepts and tools in solving relevant theoretical, computational, and empirical problems
• Ability to apply knowledge gained to independently identify, analyze, and understand real-world problems and issues
• Demonstrated effective oral and written communication of results and conclusions
• Understanding of the societal and policy context of climate science

Preparation for the Major

Required: Atmospheric and Oceanic Sciences 51; Chemistry and Biochemistry 14A and 14B, or 20A and 20B; Civil and Environmental Engineering M20 or Program in Computing 10A or an equivalent course selected in consultation with the undergraduate adviser; Mathematics 3A, 3B, and 5C, or 31A, 31B, 32A, 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 climate sciences or other branches of science and engineering are advised to select the Mathematics 31A through 33B sequence and the Physics 1 sequence.

Transfer Students

Transfer applicants to the Climate Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of calculus, one year of calculus-based physics with laboratory, one general chemistry course with laboratory for majors, one course in programming (MATLAB or Python), and one introductory statistics course.

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

The Major

Required: Atmospheric and Oceanic Sciences 101, M105, C110, 112, 125, and two additional upper-division atmospheric sciences courses selected from 103, 104, M106, 107, CM114, M120, 130, 141, C144, 155, C160, 180, and two upper-division policy/solutions or quantitative courses from a preapproved list. Upper-division electives may also be selected in consultation with the undergraduate advisers. Students preparing for graduate studies in climate sciences or other areas should discuss specific requirements with the undergraduate advisers.

Atmospheric and Oceanic Sciences Minor

The Atmospheric and Oceanic Sciences minor provides a formal vehicle for students specializing in other science fields to pursue interests in the atmospheric and oceanic environment. It is designed to be flexible, recognizing that many topics in this field cross traditional disciplinary boundaries.

To enter the minor, students must have an overall grade-point average of 2.0 or better and must make an appointment with a departmental undergraduate adviser for approval in selecting a coordinated program of courses from within the department and related disciplines. For more information, contact the department at 310-825-1954.

Required Courses (28 units): Seven 4-unit courses, including (1) three from Atmospheric and Oceanic Sciences M100, 101, 102, 103, 104, M105, M106, C110, C115, M120, 130, 141, 145, 150, C160, 170, 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 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.

Groups of courses relevant to specific subareas of atmospheric sciences include (1) atmospheric chemistry: Atmospheric and Oceanic Sciences 104, Chemistry and Biochemistry 103, 110A, 110B, C113B, 114; (2) atmospheric chemistry and biology: Atmospheric and Oceanic Sciences 101, 104, Ecology and Evolutionary Biology 109, C119A, 122; (3) atmospheric dynamics: Atmospheric and Oceanic Sciences 101, 102, Physics 112, 131, 132; (4) atmospheric dynamics and mathematical modeling: Atmospheric and Oceanic Sciences 101, 180, Mathematics 115A, 115B, 132, 135, 136, 142, 146; (5) oceangraphy and biology: Atmospheric and Oceanic Sciences 101, 103, 104, Ecology and Evolutionary Biology 109, 123A or 123B, 147, 148; (6) upper atmosphere: Atmospheric and Oceanic Sciences 101, M120, C170, Physics 110A, 110B, M122.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. One course may be taken on a Passed/Not Passed basis; each of the other minor courses must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

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

Graduate Degrees

The Department of Atmospheric and Oceanic Sciences offers Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Atmospheric and Oceanic Sciences.

Atmospheric and Oceanic Sciences

Lower-Division Courses

1. Climate Change: From Puzzles to Policy. (4) Lecture, three hours; discussion, one hour. Overview of fundamentals of Earth’s climate, including greenhouse effect, water and chemical cycles, outstanding features of atmospheric and ocean circulation, and feedback between different system components. Exciting and contentious scientific puzzles of climate system, including causes of ice ages, greenhouse warming, and el niño. Immerse with an appreciation for climate 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, four hours; discussion, two hours. 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 stratospheric chemistry and troposphere; various models 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 constituents, and smog transport. P/NP or letter grading.

5. Introduction to Atmospheric Environment. (4) Lecture, three hours; discussion, one hour. Introduction to atmospheres of planets and their satellites in solar system using information obtained during recent planetary exploration program. Elementary description of origin and evolution of atmospheres on planets. Planets on planets, conditions necessary for evolution of life, and its resulting effect on planetary environment. P/NP or letter grading.

M7. Perils of Space: Introduction to Space Weather. (4) Same as Earth, Planetary, and Space Sciences MFT. Lecture, four hours; four hours of lab. Emphasis on fundamental aspects of plasma physics. Dynamic sun, solar wind, and Earth’s magnetosphere and ionosphere. Space storms and substorms and their impacts on astronauts, spacecraft, and surface power and communication grids. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics 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 1BB, with grades of C or better. Development of fundamental understanding of climate science. Topics include
Upper-Division Courses

M100. Earth and Its Environment. (4) Same as Environment M111.) Lecture, three hours. Overview of Earth as a system, with an emphasis on the 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 problems that affect the Earth, and human influence on changing climates. P/NP or letter grading.


M103. Physical Oceanography. (4) Lecture, three hours; discussion, one hour. Requisite: Mathematics 3B or 31B. Introductory course or physics 3 or 31. Characteristics of atmosphere, oceans, and land masses. Introduction to contemporary applied climatology, including current research topics such as climate change, extreme weather phenomena, and human influence on changing climates. Letter grading.

M105. Introduction to Chemical Oceanography. (4) Same as Ecology and Evolutionary Biology M139.) Lecture, three hours; discussion, one hour. Corequisites: Mathematics 3B or 31B, Physics 1A or 5A or 6A. Students gain basic ability to understand, communicate, and conduct scientific research in atmospheric and oceanic sciences. Basics of scientific process, research methodology, 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. P/NP or letter grading.

M109. Climate Change Assessment. (4) Lecture, three hours; discussion, one hour. Requisite: course 103 or M105. Circulation, biogeochemistry, biota, water quality, measurement techniques, computational modeling, conservations, policies, and management for the future of the ocean, including coastal management and ocean resources, such as marine energy and climate changes from global warming. Letter grading.

M110. Applied Climatology: Principles of Climate Impact on Natural Environment. (4) Same as Geography M110.) 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 research topics such as climate change, extreme weather phenomena, and human influence on changing climates. P/NP or letter grading.


M112. Climate Change Assessment. (4) Lecture, three hours. Preparation: one upper-division course in Atmospheric and Oceanic Sciences or Environmental Sciences. Requisite: course 110. Introduction to paleoclimate. Examination of the future anthropogenic climate change and understanding of natural climate variability depend on international climate model intercomparison projects, on large observing systems coordinating space and ground observations, and on multi-scientist climate assessments. Lectures, readings and projects address current issues in the scientific literature on assessment of climate change for students with interests in climate science, with an emphasis on understanding of the atmospheric, oceanic and environmental sciences. P/NP or letter grading.


M115. Mesometeorology. (4) Lecture, three hours. Requisite: course 101. Observations and models of meteorological phenomena 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. Discussions on design of field project. Letter grading.


M130. California's Ocean. (4) Lecture, four hours. Recommended requisite: course 103 or M105. Circulation, biogeochemistry, biota, water quality, measurement techniques, computational modeling, conservations, policies, and management for the future of the ocean, including coastal management and ocean resources, such as marine energy. Letter grading.

M135. Ocean Change in the Anthropocene. (4) Lecture, one hour. Recommended requisites: courses 103, 105. Review of main impacts of human activities on ocean, from warming and acidification to overfishing, pollution, and exploitation of marine resources. Focus on oceans as indicators 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.


M145. Atmospheric Physics: Radiation, Clouds, and Aerosols. (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 solar radiation and terrestrial radiation, and 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. Concurrency is required with course 222. P/NP or letter grading.

M150. Atmospheric and Oceanic Sciences Laboratory. (5) Lecture, one hour; laboratory, six hours. Required requisites: Mathematics 3B or 31B, Physics 1B or 6B. 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, and associated processes. Introduction to experimental/observational approach in
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; atmospheric effects on continent-wide natural and human-scaled vegetation patterns. Enrolled with permission. Limited to students in College Honors Program. Letter grading.

160. Remote Sensing of Atmosphere and Oceans. (4) Lecture, three hours. Requisite: Physics 1C or 6B. Theory and techniques of remote sensing; atmospheric spectroscopy, scattering, and polarization; passive and active techniques; 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 and oceanic sciences; linear statistical analysis. Emphasis on applications, with specific examples from atmospheric and oceanic sciences. Concurrently scheduled with course C260. P/NP or letter grading.

186. Operational Meteorology. (2) Laboratory, six hours. Requisite: course C110. Limited to junior/senior Atmospheric, Oceanic, and Environmental Sciences majors. Daily contact with weather data and forecasting, satellite and radar data. Introduction to weather forecasting for aviation, air pollution, marine weather, fire weather, and public use. Includes daily weather map discussions and visits to observing, radiosonde, and radar installations. Letter grading.

198HC. Honors Contracts (1). Tutorial, three hours. Limited to 30 students. Open to students who have been selected by the department. May be repeated for credit up to four units. P/NP grading.

199HC. Honors Contracts (1). Tutorial, three hours. Limited to 30 students. Open to students who have been selected by the department. May be repeated for credit up to four units. P/NP grading.

190. Research Colloquium in Atmospheric and Oceanic Sciences. (2) Seminar, two hours. Preparation: basic knowledge of meteorology (equivalent to course 3) and lower-division calculus, chemistry, and physics; course 101 strongly recommended. Limited to departmental majors and seniors. Survey of current research projects presented by faculty members and research staff in seminar and/or panel discussion format. May be repeated for credit. P/NP grading.

197. Individual Studies in Atmospheric and Oceanic Sciences. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Atmospheric and Oceanic Sciences. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors and required for Mathematics/Atmospheric and Oceanic Sciences majors. Supervised individual research or investigation under guidance of faculty member. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


200B. Introduction to Dynamics of Earth System. (4) Lecture, three hours. Overview of general circulation of atmosphere and ocean; global energy balances; coupled circulations (such as el nino); mesoscale, synoptic, and tropical phenomena; boundary layers, clouds, and convection; biogeochemical cycles; climate variability and change. S/U or letter grading.


201C. Atmospheric and Oceanic Turbulence. (4) Lecture, three hours. Required course: course 200A. Recommended: course 201A. Turbulent flows that occur on relatively small scales (< 10 km) in both atmosphere and ocean. Classical homogeneous turbulence, isotropy, convective, and boundary-layer turbulence and its geophysical modification due to stratification, Earth’s rotation, and water–sea ice interactions. Letter grading.


M203A. Introduction to Atmospheric Chemistry. (4) (Same as Civil Engineering M262A.) Lecture, three hours; research practicum, two hours. Principles of chemical weathering, kinetic and photothermal chemistry, spectroscopy, and photochemistry; chemical composition and history of Earth’s atmosphere; biogeochemical cycles of key atmospheric constituents; introduction to the chemistry of stratosphere, upper atmosphere, and the earth’s surface. S/U or letter grading.

M203B. Introduction to Atmospheric Physics. (4) Lecture, three hours; discussion, one hour. Principles of radiative transfer, absorption, emission, and scattering of solar and infrared radiation; radiation budget consideration; aerosols in atmosphere; principles of oral comprehensive examination and defense of thesis. Letter grading.


C205B. Introduction to Solar-Terrestrial Physics. (4) Lecture, three hours; discussion, one hour. Solar, interplanetary, magnetospheric, ionospheric, auroral, geomagnetic phenomenological and theoretical background for studies in space physics. Contextual understanding of and interactions between space physics terminology provided. S/U or letter grading.

C205C. Planetary Upper Atmospheres. (4) Lecture, three hours; discussion, one hour. Aeronomy of upper atmospheres of Earth and other planets and some of their satellites—thermochemical structure and morphology, circulations, and disturbances; ionospheres as collisional and magnetized (unmagnetized) plasmas: currents, drifts, and instabilities. Examples of planetary atmospheric and planetary plasmas: Earth's magnetosphere, magnetopause, and magnetosheath. Magnetospheric and ionospheric plasma. S/U or letter grading.


M206. Introduction to Biophysical Modeling of Land Surface Processes and Land/Air Interface Interactions. (4) (Same as Geography M206.) Lecture, three hours; laboratory, one hour; reading period, one hour. Designed for graduate students. Presentation of introductory knowledge for graduate students to understand nature, principles, and scope of biophysical modeling of land surface processes including ideal canopy model, radiation, heat and CO2 fluxes transfer, and satellite data application. Laboratory sessions included. S/U or letter grading.

209. Climate Change Assessment. (4) Lecture, three hours. Designed for graduate students. Preparation of introductory knowledge for graduate students to understand nature, principles, and scope of biophysical modeling of land surface processes including ideal canopy model, radiation, heat and CO2 fluxes transfer, and satellite data application. Laboratory sessions included. S/U or letter grading.

220. Climate Impacts and Human Systems. (4) Lecture, three hours; discussion, one hour. Corequisites: graduate atmospheric, oceanic, hydrological, or climate science courses. Lectures, readings, and projects on current research in projects related to biophysical, humanitarian, and social sciences. Application of principles of change under standardized scenarios for future anthropogenic greenhouse gases and aerosols. May be repeated for credit. S/U or letter grading.

Atmospheric and Oceanic Sciences / 203
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. Requisite or corequisite: course 201A. Basic numerical methods for initial-boundary value problems in fluid dynamics, with emphasis on applications to atmospheric and oceanographic problems. Finite-difference methods and truncation error. Linear and nonlinear computational instability. Models and computational boundary conditions. Nonlinear shallow-water equation model. Spectral methods. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


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. Continuum mechanics of ice sheets and mantle. Oscillatory models of Quaternary glaciation cycles. Transitions from equilibrium to aperiodic and periodic 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. Basic transport 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. Cyclic convection over tropical island, coastal, and mountainous regions. S/U or letter grading.


218. Dynamics of Atmosphere/Ocean System. (4) Lecture, three hours. Transfer of properties between atmosphere and ocean, and between ocean and 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.

223. 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 flux, oxygen in oceans and atmosphere, and nutrient flux; 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. Unique ocean biogeochemical cycles and climate interactions between biogeochemical cycles on land and in ocean. S/U or letter grading.

CM237. Aquatic Geomicrobiology. (4) Same as Earth, Planetary, and Space Sciences CM214L. Lecture; three hours; discussion; one hour. Recommended requisite: course M105 or Earth, Planetary, and Space Sciences C107. Fundamental geomicrobiological metabolisms and biogeochemical reactions occurring in aquatic systems, how they impact their environment, and how they interact in complex ecosystem such as methane seeps, hydrothermal vents, coral reef, microbial mats, or deep biosphere. Metabolisms include different photosynthetic, heterotrophic, and chemolithoautotrophic pathways. Interpretation of microbial metabolites and understanding of how microorganisms govern mineralization and element cycling in aquatic systems. Concurrently scheduled with course CM114. S/U or letter grading.

240A. Radar Meteorology. (4) Lecture; three hours. Radar observations of cloud and precipitation particle, precipitation intensity and amount, updraft velocities, horizontal wind speed and direction, observations of convective clouds, thunderstorms, tornadoes, hurricanes, squall lines, and fronts; clear air echoes. S/U for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

C240B. Remote Sensing of 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 C160. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

244A. Atmospheric Radiation. (4) Lecture; three hours. Requisite: course 230B. Presentation of computational methods for solar and thermal infrared radiative fluxes and heating rates in clear, aerosol, and cloudy atmospheres for climate studies. Topics include line-by-line and correlated k-distribution methods for treating gaseous absorption, simplified methods for radiative transfer in Rayleigh and Lorenz/Mie atmospheres, and global radiative equilibrium. Use of user-friendly computer code required to perform calculations of radiative fluxes and heating rates in various atmospheric conditions for climate applications. S/U or letter grading.

244B. Radiation and Climate. (4) Lecture; three hours. Requisite: course 230B. Presentation of computational methods for solar and thermal infrared radiative fluxes and heating rates in various atmospheric conditions for climate applications. S/U or letter grading.

245. 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 instability waves in dynamic and static atmospheres 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; interaction of 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 Electrodynamics. (4) Lecture, three hours. Ionospheric structure, currents, and electric fields; equatorial and high-latitude ionospheres; ionospheric measurements. Requisite: 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 magnetosphere dynamics, and transport of energetic radiation belt particles. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


259. Space Weather. (4) Lecture, three hours. Identification, description, measurement, and theoretical models of major disturbances in magnetosphere/ionosphere/thermosphere system, Storms, substorms, convection bays, and other disturbances. Connections to interplanetary conditions, particle precipitation, currents and fields. S/U or letter grading.

260. Data Analysis in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; laboratory, one hour. Enforced requisite: one course from 101 through M105. Overview of data analytic methods in common use in atmospheric and oceanic research. Linear models, principal component analysis (empirical orthogonal function), time-series analysis, and clustering methods; model validation and evaluation, significance tests, error analysis, bias detection. Emphasis on practical applications, with specific examples from atmospheric and oceanic sciences. Concurrently scheduled with course 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.


276. Seminar: Mesoscale Processes. (2) Seminar, one hour. Selected topics of current research interest in convection, extratropical cyclones, and fronts. May be repeated for credit. S/U or letter grading.

277. Seminar: Coastal Ocean. (2) Seminar, one hour. Selected topics of current interdisciplinary research in marine and coastal sciences. 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. May be repeated for credit. S/U or letter grading.

286. Statistical Prediction and Verification. (2) Seminar, one hour; discussion, one hour. Statistical prediction and verification of 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.

296A. Numerical Modeling of Atmosphere; 296B. Boundary Layers, Clouds, and Climate; 296C. Numerical Mesoscale Modeling; 296D. Climate Dynamics; 296E. Numerical Modeling of Atmospheric and Ocean; 296F. Hierarchical Modeling of Ocean/Atmosphere System; 296G. Upper Atmosphere and Space Weather; 296H. Recent Advances in Atmospheric Chemistry; 296L. Upper Atmospheric Dynamics; 296J. Experimental MesoScale Meteorology; 296K. Tropical Meteorology; 296L. Geophysical Fluid Dynamics; 296M. Oceanography; and Climate; 296N. Radar Detection and Remote Sensing; 296N. Tropospheric Chemistry and Climate Modeling and Analysis; 296P. Atmospheric Chemistry of Air Pollution, Aerosols, and Climate.

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-
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 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.

Biomaterials and Regenerative Medicine: Bioengineering C104, C105, CM140, C147, C183, C185, 199 (8 units maximum), Materials Science and Engineering 104, 110, 111, 120, 130, 132, 140, 143A, 150, 151, 160, 161. The above materials science and engineering courses may be used to satisfy the technical breadth requirement.

Biomedical Devices: Bioengineering C131, M153, C172, 199 (8 units maximum), Electrical and Computer Engineering 102, Mechanical and Aerospace Engineering C187L. The electrical and computer engineering or mechanical and aerospace engineering courses listed above may 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 Masters 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. An 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, biomedical optics and mechanics, biomolecular machines. Not open for credit to Physiological Science majors. Intended for Bioengineering I. Credit/no credit option. 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.

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. Prerequisite: preparation for analysis and design of biological and biomedical devices and systems. Classical and statistical thermodynamic analysis of biological systems. Material, energy, charge, and force balances. Introduction to network analysis. Letter grading.


C102. Human Physiological Systems for Bioengineering I. (4) (Same as Physiological Science CM101) Lecture, two 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 aspect of biological system included. Actual demonstration of biomedical instruments, as well as visits to biomedical facilities. Concurrently scheduled with course CM202. Letter grading.


C104. Physical Chemistry of Biomacromolecules. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 30A, Life Sciences 2, 3. To understand biological materials and design synthetic replacements, it is imperative to understand their physical chemistry. Biomacromolecules such as proteins and DNA can be hierarchically patterned and characterized by applying fundamentals of polymer physical chemistry. Investigation of polymer structure and conformation, bulk and solution thermodynamics, polymer networks, and viscoelasticity. Application of engineering principles to problems involving biomacromolecules such as protein conformation, solvation of charged species, and synthesis and characterization of biomacromolecules. Concurrently scheduled with course C204. Letter grading.

C105. Engineering of Bioconjugates. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, 30A, 30B. Highly recommended: one organic chemistry course. Bioconjugate chemistry is science of coupling biomolecules for wide range of applications. Oligonucleotides may be coupled to one surface in gene chip, or one protein may be coupled to one polymer to enhance its stability in serum. Wide variety of bioconjugates are used in delivery of pharmaceuticals, in sensors, in medical (in tissue engineering). Basic concepts of chemical ligation, including choice and design of conjugate linkers depending on type of biomolecule and desired application, such as degradable versus nondegradable linkers. Presentation and discussion of design and synthesis of synthetic bioconjugates for some sample applications. Concurrently scheduled with course C205. Letter grading.

C106. Topics in Bioelectricity for Bioengineers. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Chemistry 20B, Life Sciences 2, 3, Mathematics 33B, Physics 1C. Covered in depth in lecture with biological membranes and channel proteins, with specific emphasis on electrophysiology. Basic physical principles governing electrophysiology in dielectric media, building on complexity to ultimately address action potentials and signal propagation in nerves. Topics include Nerst/Planck and Poisson/Boltzmann equations, Nernst potential, Ohm’s law, equipotential, GHK equation, energy barriers in ion channels, cable equation, action potential, Hodgkin/Huxley equations, impulse propagation, axon geometry and conduction, dendrites, and synapses. Concurrently scheduled with course C206. Letter grading.

C107. Polymer Chemistry for Bioengineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course C104 or C105. Fundamental concepts of polymer synthesis, including step-growth, chain growth (ionic, radical, metal catalyzed), and ring-opening, with focus on factors that can be used to control chain length, chain distribution, molecular weight, polydispersity, chain copolymerization, and stereochemistry in polymerizations. Presentation of applications of use of different polymerization techniques. Concepts of step-growth, chain growth, radical polymerization, and effects of synthesis route on polymer properties. Lectures include both theory and practical issues demonstrated through examples. Concurrently scheduled with course C207. Letter grading.

110. Biob transport and Biosecon Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 100, Mathematics 33B. Introduction to fluid flow, heat transfer, mass transfer, binding events, and biochemical reactions on uncatalyzed systems to interest to bioengineers, including cells, tissues, organs, human body, extracorporeal devices, tissue engineering systems, and bioartificial organs. Introduction to pharmaco-kinetic analysis. Letter grading.


C131. Nanopore Sensing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Intended for Bioengineering I. Concurrently scheduled with course CM203. Letter grading.

C139A. Biomolecular Materials Science I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Overview of chemical and physical foundations of biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different types of interactions that exist between biomolecules, such as van der Waals interactions, entropically modulated electrostatic interactions, hydrophobic interactions, hydration and solvation interactions, polymer-mediated interactions, depletion interactions, molecular recognition, and 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 those in drug and gene delivery and tissue engineering. May be taken independently for credit. Concurrently scheduled with course C239A. Letter grading.

C139B. Biomolecular Materials Science II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Course C139A is not requisite to 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 basic types of biomolecules, with emphasis on nucleic acids, proteins, and lipids. Studying the biomimetic systems organize into their functional forms via self-assembly and how these structures impart biological function. Illustration of these ideas using examples from bioengineering and biomedical engineering. Case study on current topics, including drug delivery, gene therapy, cancer therapeutics, emerging pathogens, and relation of self-assembly to disease states and gene therapy. Concurrently scheduled with course C239B. Letter grading.

C140. 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-
et al. 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 Mech-
anical and Aerospace Engineering CM141.) Lecture, four hours. Introduction to physical structures of cell bi-
ology and how that governs cell function mechanically. Review and application of contin-
umum mechanics and statistical mechanics to de-
velop quantitative mathematical models of structural mechanical behavior. Macromolecular poly-
mers as entropic springs, random walks and diff-
usion, mechanosensitive proteins, single-molecule
force-extension, DNA packing and transcriptional reg-
ulation, lipid bilayer membranes, mechanics of cyto-
skeleton, molecular motors, biological electricity,
muscle mechanics, pattern formation. Concurrently
scheduled with course CM241. Letter grading.

CM145. Molecular Biotechnology for Engineers. (4) (Same as Chemical and En-
terprise, with focus on how to build artificial tis-
ue and design and development of tissue-engineering de-
vices. Manufacturing concepts, FDA approval processes, and physical/
chemical properties. Case studies connect
laboratory techniques to current biomedical en-
gineering research and reinforce experimental design
skills. Letter grading.

C170. Energy-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Enforced 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-
rently scheduled with course C270. Letter grading.

C170L. Introduction to Techniques in Studying La-
tissue Interaction. (2) Laboratory, four hours; outside study, two hours. Corequisite: course C170. Introduction to introduction and experimental tech-
niques needed in energy delivery research. Topics include computer simulations of light propaga-
tion in tissue, measuring absorption spectra of tissue/ tissue phenotypes, making tissue phenotypes, determin-
ate tissue properties, measure and couple tissue, tech-
niques of temperature distribution measurements. Concur-
rently scheduled with course C270L. Letter grading.

C171. Laser-Tissue Interaction II: Biologic Spec-
troscopy. (4) Lecture, four hours; outside study, eight hours. Requisite: 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-

C172. 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 of new devices for medical use. Theoretical and practical concepts 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, biopsy devices, laparos-
toscopic tools, cardiovascular and interventional ra-
diology devices, orthopedic instrument design, and in-
tegration of devices with therapy. Examination of computer-assisted design, fabrication, testing, and validating. Preparation of drawings and consider-
ation of development of new and novel devices. Con-
currently scheduled with course C272. Letter grading.

176. Principles of Biocompatibility. (4) Lecture, four hours; discussion; two hours; outside study, six hours. Enforced requisites: course 100, Mathematics 33B, Physics 1C. Biocompatibility at systemic, tissue, cellular, and molecular levels. Biomechanical compat-
ibility, stress-strain relationships, cell and molecular response to mechanical signals, biochem-
ical and cellular compatibility, immune response. Letter grading.

177A. Bioengineering Capstone Design I. (4) Le-
ture, two hours; laboratory, six hours; outside study, four hours. Enforced requisites: courses 167L, 176L. Lectures, seminars, and discussions on aspects of biomedical device and therapeutic design. Should the end of 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. Emphasizing working within bio-

167L. Bioengineering Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisites: Chemistry 20A, 20B, and 20L. Selected topics in molecular biology that form foundation of biotechnology and therapeutic delivery technologies. Topics include recombinant DNA technology, molecular re-
search tools, manipulation of gene expression, di-
rected mutation and genetic engineering, DNA-
based diagnostics, microscopy, and molecular and protein-based diagnostics, genomics and bioin-

C147. Applied Tissue Engineering: Clinical and In-
dustrial Perspective. (4) Lecture, three hours; dis-
cussion, two hours; outside study, seven hours. Req-
uisites: courses 20A, 20B, and 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 biologic and synthetic materials, delivery methods, FDA approval processes, and physical/ chemical and biological testing. Case studies include skin and artificial skin, bone and cartilage, blood ves-
sets, neurotissue engineering, and liver, kidney, and other organs. Clinical and industrial perspectives of tissue engineering. Manufacturing con-
straints, clinical limitations, and regulatory challenges in design and development of tissue-engineering de-

M153. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Chemical Engineering M153. Bioengineer Enterprise, Molecular En-
try CM145 and Mechanical and Aerospace Engineering M138B.) 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, 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 experience 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; outside study, seven hours. Enforced requisite: course 110. Introduction to Navier/Stokes equations, assumptions, and simplifications. Analyt-
ical framework for calculating simple flows and nu-
crural 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 partic-
le-particle interactions. Hands-on experiments with saccade structures and particles in confined flows. Particle separations by fluid dynamic forces: field-flow frac-
tonation, inertial focusing, structure-induced separa-
tions. Application concepts in internal biological flows
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. The approach is to use these models to gain clarity on nature of biosystem phenomena, and frame questions and explore new ideas for research. Letter grading.

C163. Targeted Drug Delivery and Controlled Drug Release. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20L. New therapies require comprehensive understanding of modern biology, physiology, biology, and pharmaceutics. Targeted delivery of genes and drugs and their controlled release are important in treatment of challenging diseases and relevant to tissue engineering. Letter grading.

M194. Introduction to Computational and Systems Biology. (2) (Same as Computational and Systems Biology M185.) Lecture, two hours; outside study, four hours. Enforced requisites: introductory linear algebra, and computer programming. Explorations of both chemistry of materials and physical presentation of devices and compounds used in delivery and release. Concurrently scheduled with course C287. Letter 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 strategies and concepts to gain clarity on nature of biosystem properties for understanding colloidal stability. Analysis of concepts related to both modeling and experimentation for special topics in tissue engineering. Letter grading.

CM186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Computational and Systems Biology M185, Computer Science CM186, and Ecology and Evolutionary Biology M178.) Lecture, four hours; laboratory, two hours; outside study, eight hours. Dynamic biochemistry, biomaterials, and engineering. Targeted delivery of genes and drugs and their controlled release are important in treatment of challenging diseases and relevant to tissue engineering. Letter grading.


M204. Physical Chemistry of Biomacromolecules. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Preparation: Chemistry 20A, 20B, 30A, Life Sciences 2, 3. To understand biological phenomena, and frame questions and explore new ideas for research. Letter grading.


M215. Biochemical Reaction Engineering. (4) (Same as Chemical Engineering CM215.) Lecture, three hours; discussion, one hour; outside study, seven hours. Highly recommended: one organic chemistry course. Bioconjugate chemistry is science of coupling biomolecules or, for wide range of applications, oligonucleotides may be coupled to one enzyme in gene chip, or one protein may be coupled to one polymer to enhance its stability in serum. Wide variety of bioconjugates are used in delivery of pharmaceuticals, in sensors, in medical diagnostics, and in tissue engineering. Basic concepts of chemical ligation, including choice and design of conjugate linkers depending on type of biomolecule and desired application. Presentation and discussion of design and synthesis of synthetic bioconjugates for some sample applications. Concurrently scheduled with course C205. Letter grading.

M206. Topics in Bioelectricity for Bioengineers. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Chemistry 20B, Life Sciences 2, 3, Mathematics 31B, 32B, and Computer Science 31. Covariance in depth of physical processes associated with biological membranes and channel proteins, with specific emphasis on electrophysiology. Basic physical principles governing electric field interactions with biologic media, building on complexity to ultimately address action potential and signal propagation in nerves. Topics include Nernst/Planck and Poisson/Boltzmann equations, Nernst potential, electrical grain, current, charge, and energy barriers in ion channels, cable equation, action potentials, Hodgkin/Huxley equations, impulse propagation, axon geometry and conductance, and applications to electrical recording. Concurrently scheduled with course C106. Letter grading.

M207. Polymer Chemistry for Bioengineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course C204 or C205. Fundamental concepts of polymer synthesis and properties, including domain structure and conformation, chemical structure and polymer networks, and viscoelasticity. Application of engineering principles to problems involving biomacromolecules such as protein conformation, solvation of charged species, in vitro and in vivo separation of biomacromolecules. Concurrently scheduled with course C104. Letter grading.

C205. Engineering of Bioconjugates. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, 20L. Highly recommended: one organic chemistry course. Bioconjugate chemistry is science of coupling biomolecules or, for wide range of applications, oligonucleotides may be coupled to one enzyme in gene chip, or one protein may be coupled to one polymer to enhance its stability in serum. Wide variety of bioconjugates are used in delivery of pharmaceuticals, in sensors, in medical diagnostics, and in tissue engineering. Basic concepts of chemical ligation, including choice and design of conjugate linkers depending on type of biomolecule and desired application. Presentation and discussion of design and synthesis of synthetic bioconjugates for some sample applications. Concurrently scheduled with course C205. Letter grading.

M206. Topics in Bioelectricity for Bioengineers. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Chemistry 20B, Life Sciences 2, 3, Mathematics 31B, 32B, and Computer Science 31. Covariance in depth of physical processes associated with biological membranes and channel proteins, with specific emphasis on electrophysiology. Basic physical principles governing electric field interactions with biologic media, building on complexity to ultimately address action potential and signal propagation in nerves. Topics include Nernst/Planck and Poisson/Boltzmann equations, Nernst potential, electrical grain, current, charge, and energy barriers in ion channels, cable equation, action potentials, Hodgkin/Huxley equations, impulse propagation, axon geometry and conductance, and applications to electrical recording. Concurrently scheduled with course C106. Letter grading.

C207. Polymer Chemistry for Bioengineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course C204 or C205. Fundamental concepts of polymer synthesis and properties, including domain structure and conformation, chemical structure and polymer networks, and viscoelasticity. Application of engineering principles to problems involving biomacromolecules such as protein conformation, solvation of charged species, in vitro and in vivo separation of biomacromolecules. Concurrently scheduled with course C104. Letter grading.


M215. Biochemical Reaction Engineering. (4) (Same as Chemical Engineering CM215.) Lecture, three hours; discussion, one hour; outside study, seven hours. Enforced requisites: Computer Engineering 215. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. Letter grading.

M217. Biomedical Imaging. (4) (Same as Electrical and Computer Engineering E217.) 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 Bi- ology in Medicine M219.) Lecture, three hours; dis- cussion, one hour. Basic principles of magnetic reso- nance (MR), physics, and image formation. Emphasis on hardware, analytic and methodological aspects of image contrast mechanisms, spin and gradient echoes, Fourier transform imaging methods, structure of pulse sequences, and various scanning parame- ters. Introduction to principles of magnetic resonance imaging. Study of tissue characterization and MR signal. Emphasis on current research efforts, with an approach that will present the student with relevant research topics. Letter grading.

M220. Introduction to Medical Informatics. (2) Lecture, two hours; outside study, four hours. Designed for graduate students to understand topics covered in other medical and imaging informatics core curriculum courses. Exposure to programming concepts for medical applications, with focus on basic abstraction techniques, methodology, and issues in medical informatics to expose students to the field. Definition of this emerging field of study, current research efforts, and future directions in research. Key issues in medical informatics to expose students to different application domains, such as information system architectures, data and process modeling, information extraction and representations, information retrieval and virtual health services research, telemedicine. Emphasis on current research en- deavors and applications. S/U grading.

221. Human Anatomy and Physiology for Medical and Imaging Informatics. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students to understand topics covered in other medical and imaging informatics core curriculum courses. Exposure to programming concepts for medical applications, with focus on basic abstraction techniques, methodology, and issues in medical informatics to expose students to the field. Definition of this emerging field of study, current research efforts, and future directions in research. Key issues in medical informatics to expose students to different application domains, such as information system architectures, data and process modeling, information extraction and representations, information retrieval and virtual health services research, telemedicine. Emphasis on current research en- deavors and applications. S/U grading.

M222. Bioseparations and Bioprocess Engineer- ing. (4) (Same as Chemical Engineering CM222.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced corequisite: Chemical Engineering 15C. Separation techniques and economic factors used to design processes for isolating and purifying materials like white cells, en- zymes, food additives, or pharmaceuticals that are products of biological gradients. Letter grading.

M226. Medical Knowledge Representation. (4) (Same as Information Studies M253.) Seminar, four hours; outside study, eight hours. Designed for graduate students to understand topics covered in other medical and imaging informatics core curriculum courses. Exposure to programming concepts for medical applications, with focus on basic abstraction techniques, methodology, and issues in medical informatics to expose students to the field. Definition of this emerging field of study, current research efforts, and future directions in research. Key issues in medical informatics to expose students to different application domains, such as information system architectures, data and process modeling, information extraction and representations, information retrieval and virtual health services research, telemedicine. Emphasis on current research en- deavors and applications. S/U grading.

M227. Medical Information Infrastructures and In- ternet Technologies. (4) (Same as Information Studies M254.) Lecture, four hours; outside study, eight hours. Designed for graduate students to understand topics covered in other medical and imaging informatics core curriculum courses. Exposure to programming concepts for medical applications, with focus on basic abstraction techniques, methodology, and issues in medical informatics to expose students to the field. Definition of this emerging field of study, current research efforts, and future directions in research. Key issues in medical informatics to expose students to different application domains, such as information system architectures, data and process modeling, information extraction and representations, information retrieval and virtual health services research, telemedicine. Emphasis on current research en- deavors and applications. S/U grading.

M228. Medical Decision Making. (4) (Same as Infor- mation Studies M255.) 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 evidence based medicine. Different types of interactions that exist between biomolecules, such as van der Waals interactions, entropically mod- ulated electrostatic interactions, hydrophobic interac- tions, hydration and solvation interactions, protein-in- mediated interactions, depletion interactions, molec- ular recognition, and others. Illustration of these ideas using examples from bioengineering and biomedical engineering. Students should be familiar with elementary calculations 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.

C239B. Biomolecular Materials Science II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Course C239A is not requisite to C239B. Overview of chemical and physical foundations of biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different basic types of biomolecules, with emphasis on their structural and biological function. Illustration of these ideas using examples from bioengineering and biomedical engineering. Case study on current topics, including drug delivery, gene therapy, cancer therapeutics, emerging pathologies, and relation of self-assembly to diseased states. 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 CM212, and CM12A or CM12B. Introduction to mechanical functions of human body; skeletal adaptations to optimize load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics and mass transfer. Rate generation. Laboratory simulations and tests. Concurrently scheduled with course CM140. Letter grading.


CM245. Molecular Biotechnology for Engineers. (4) (Same as Chemical Engineering 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 recombinant DNA technology, molecular biology, 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.

C247. Applied Tissue Engineering: Clinical and Industrial Perspective. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course CM202, Chemistry 20A, 20B, 20L, Life Sciences 1 or 2. Overview of central topics of tissue engineering, with focus on how to build artificial tissues into regenerative, functionally viable products. Topics include biomaterials selection, cell source, delivery methods, FDA approval processes, and physical/chemical and biological testing. Case studies include skin and artificial skin, corneal, cartilage, blood vessels, neurotissue engineering, and liver, kidney, and other organs. Clinical and industrial perspectives of tissue engineering products, manufacturing considerations, and regulatory challenges in design and development of tissue-engineering devices. Concurrently scheduled with course C147. Letter grading.

M248. Introduction to Biological Imaging. (4) (Same as Pharmacology M248 and Physics and Biology in Medicine M248.) Lecture, three hours; laboratory, one hour; outside study, seven hours. Exploration of role of biological imaging in modern biology and medicine, including imaging physics, instrumentation, image processing, and applications of imaging for range of modalities. Practical experience through series of imaging laboratories. Letter grading.

M250B. Microelectromechanical Systems (MEMS) Fabrication and Applications. (4) (Same as Electrical and Computer Engineering M250B and Mechanical and Aerospace Engineering M250B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisites: course 110 or equivalent. Introduction of micromachining processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Materials selection for chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

M252. Microelectromechanical Systems (MEMS) Design and Applications. (4) (Same as Electrical and Computer Engineering M252 and Mechanical and Aerospace Engineering M252.) Lecture, four hours; outside study, eight hours. Introduction to MEMS design for MEMS. Design project required. Letter grading.

C255. Fluid-Particle and Fluid-Structure Interactions in Microflows. (4) Lecture, four hours; laboratory, one hour; outside study, seven hours. Enforced requisites: course 110. Introduction to Navier/Stokes equations, assumptions, and simplifications. Analytical framework for calculating simple flows and numerical methods to solve and gain intuition for complex flows. Forces on particles in Stokes flow and finite-inertia flows. Flows induced around particles with and without finite inertia and implications for particle-particle interactions. Secondary flows induced by structures and particles in confined flows. Particle separations by dynamic forces: field-flow fractionation, inertial focusing, structure-induced separations. Application concepts in internal biological flows and separations for biotechnology. Helps students become sufficiently fluent with fluid mechanics vocabulary and techniques, design and model microfluidic systems to manipulate fluids, cells, and particles, and develop strong intuition for how fluid and particles behave in arbitrarily structured microchannels over range of Reynolds numbers. Concurrently scheduled with course C155. Letter grading.

M260. Neurophysiology as Engineering. (4) (Same as Electrical and Computer Engineering M255 and Neuroscience M250.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 2A-2B and Introduction to Biomedical Engineering M280B.) Lecture, three hours; discussion, two hours; outside study, four hours. Critical discussion and analysis of current literature related to neuroengineering research. SJU grading.

M263. Anatomy of Central Nervous System. (4) (Same as Neuroscience M260.) Lecture, 75 minutes; discussion/laboratory, two hours. Prior to first laboratory meeting, students must complete Bloodborne Pathogens Training through UCLA Enviros. Prior to laboratory, Health and Safety. Study of anatomical locations and relationships between ascending and descending sensory and motor systems from spinal cord to cerebral surfaces and cranial nerves. Cranial and brainstem anatomy along with anatomy of ventricular and vascular systems of brain. Subcortical forebrain areas covered in detail. In-depth anatomy laboratory includes brain dissections and overview of tools for MRI analysis. Letter grading.

C270. Energy-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Enforced requisites: Life Sciences 2, Physics 1C. Introduction to therapeutics 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 C270L. Letter grading.

C270L. Introduction to Techniques in Studying Laser-Tissue Interaction. (2) Laboratory, four hours; outside study, two hours. Corequisites: course C270. Introduction to techniques used in studying laser-tissue interactions. Topics include computer simulations of light propagation in tissue, measuring absorption spectra of tissue/ tissue phantoms, making tissue, determination of optical properties of different tissues, techniques of temperature distribution measurements. Concurrently scheduled with course C270L. Letter grading.


C272. 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, endoscopic and laparoscopic tools, lasers, ablation tools, cardiovascular and interventional radiology devices, orthopedic instrumentation, and integration of devices with therapy. Examination of complex process of tool design, fabrication, testing, and validation. Preparation of drawings and consideration of development of new and novel devices. Concurrently scheduled with course C172. Letter grading.

CM278. Introduction to Biomaterials. (4) (Same as Materials Science CM280.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, and 20L, or Materials Science 2. Introduction to biomaterials and engineering. Targeted discussion to medical and dental 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 CM178. Letter grading.

C279. Biomaterials-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Requisites: course CM278. In-depth exploration of host cellular response to biomaterials: vascular response, interface, and clotting, biocompatibility, animal models, inflammation, infection, extracellular matrix, cell adhesion, and role of mechanical forces. Concurrently scheduled with course C179. Letter grading.

282. Biomedical Interfaces. (4) Lecture, four hours; laboratory, eight hours. Requisite: course CM178 or CM178L. Function, utility, and biocompatibility of biomaterials depend critically on their surface and interfacial properties. Discussion of morphology and composition of biomaterials and nanoscales, mesoscales, and macroscales, technologies of micromanipulation, fabrication of biomaterials and properties of biomaterial interfaces, and methods for designing and fabricating biomaterials with prescribed structure and properties in vitro and in vivo. Letter grading.

C283. Targeted Drug Delivery and Controlled Drug Release. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20L. New therapeutics require comprehensive understanding of modern biology, physiology, biomaterials, and engineering. Targeted de-
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 understanding problems in drug formulation and delivery to establish rationale for design and development of novel drug delivery systems that can provide spatial and temporal control of drug release. Integration of materials with specialized, structural and interfacial properties. Exploration of both chemistry of materials and physical presentation of devices and compounds used in delivery and release. Concurrently scheduled with course CM185. Letter grading.

M297C. Research Communication in Computational and Systems Biology. (4) (Same as Computer Science CM297C.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic biosystems modeling and computer simulation modeling using biologically-based mathematical models and tools to understand biological processes and systems at multiple levels of organization. Control systems, complex biocompartments, 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 planning, designing goals and data collection, mathematical models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with modeling software exercises in class and laboratory. Concurrently scheduled with course CM186. Letter grading.

M297D. Advanced Modeling Topics in Bioengineering. (2) Seminar, two hours; outside study, eight hours. Study of selected topics in bioengineering taught by resident graduate students. May be repeated for credit. Letter grading.

299A—299Z. Seminars: Research Topics in Bioengineering. (2 each) Seminar, two hours; outside study, four hours. Directed study for graduate bioengineering graduate students. 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.


M299A. Advanced Modeling Methodology for Dynamic Systems. (4) (Same as Computer Science CM299A.) Lecture, four hours; outside study, eight hours. Required: 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. Focus on model applications, limitations, and relevance in biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

299B. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Biodynamics M299B, Computer Science M299B, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Required: course CM299A. 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.

299C. Advanced Topics in Research in Biomedical Engineering. (4) (Same as Computer Science CM299C and Medicine M270E.) Lecture, four hours; outside study, eight hours. Required: course CM299A. Research techniques and experience on special topics involving models, modeling methods, and model/computing in biological and medical sciences. Review and critique of literature. Research problem searching and formulation. Individual MS and PhD-level project training. Letter grading.

M299D. Introduction to Computational Cardiology. (4) (Same as Computer Science CM299D.) Lecture, four hours; outside study, eight hours. Required: course CM299A. Research techniques and experience on special topics involving models, modeling methods, and model/computing in biological and medical sciences. Review and critique of literature. Research problem searching and formulation. Individual MS and PhD-level project training. Letter grading.

299. Special Studies in Bioengineering. (4) Lecture, four hours; laboratory, four hours. Study of selected topics in bioengineering taught by resident and visiting faculty members. May be repeated for credit. Letter grading.

299A. Separation 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 technological advances in discipline. Exploration of cutting-edge developments as challenges in wound healing models, stem cell biology, angiogenesis, signal transduction, gene therapy, cDNA microarray technology, bioartificial cultivation, nano- and micro-hybrid devices, scaffold engineering, and bioinformatics. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours. Limited to graduate bioengineering students. Required of all departmental teaching assistants. May be taken concurrently while holding TA appointment. Seminar on communicating bioengineering and biomedical engineering principles, 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 bioengineering students. Petition forms to request enrollment may be obtained from program office. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate bioengineering students. Preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate bioengineering students. Supervised independent research for MS candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. Usually taken after students have been advanced to candidacy. S/U grading.

Bioinformatics

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Xinshu Grace Xiao, PhD (Interative Biology and Physiology)

Qing Zhou, PhD (Statistics)

Scope and Objectives

Bioinformatics is defined broadly as the study of the inherent structure of biological informa-
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 M252.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requisite: course M221 or Statistics 100A or Biostatistics 100A. 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 as Computer Science 275B.) 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 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 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, 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 genomics and genetics. 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. (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, or 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. Bottleneck in being able to make sense of biological processes has shifted from data generation to statistical models and inference algorithms that can analyze these datasets. Statistical machine learning provides important toolkit in this endeavor. Biological datasets offer new challenges to field of machine learning. Examination of statistical and computational aspects of machine learning techniques and their application to key biological questions. Letter grading.

275A. Applied Bioinformatics Lab for Biologists: Population Genetics. (Formerly numbered M226.) (Same as Computer Science CM222.) Lecture, 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 M256.) Seminar, six hours (five weeks). Requisite: course 275A. Contemporary methods and techniques in bioinformatics that are used to analyze high-throughput genomic data. Topics include Galaxy server, R, MATLAB, Python, and variant calling. S/U grading.

296. Seminar: Research Topics in Bioinformatics. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Prerequisites: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research in Bioinformatics. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

599. PhD Dissertation Research and Writing. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

BIOLICAL CHEMISTRY

David Geffen School of Medicine

310 Biomedical Sciences Research Building
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Los Angeles, CA 90095-1737

Biological Chemistry 310-825-4625

Siavash K. Kurdjastani, MD, Chair
Michael F. Carey, PhD, Vice Chair
John J. Colicelli, PhD, Vice Chair

Professors

Utpal Banerjee, PhD (living and Jean Stone Professor)
Michael F. Carey, PhD
John J. Colicelli, PhD
Edward M.F. De Robertis, MD, PhD (Norman F. Sprague Professor of Molecular Oncology)
David S. Eisenberg, DPhil (Paul D. Boyer Professor of Molecular Biology and Biochemistry)
Tamir Gonen, PhD

Biological Chemistry / 213
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, structure and function, 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. (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.)

99. Student Research Program, (1 to 2) Tutorial (supervised research work; 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

M140. Cancer Cell Biology. (Same as Molecular, Cell, and Developmental Biology M140.) Lecture, three hours; discussion, one hour. Requisite: Molecular, Cell, and Developmental Biology 165A. Cancer cell origins 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. (Seminar, two hours. Taught by graduate 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. (2–2–2) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for 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. (Seminar, laboratory, four hours. Open to nonmatriculated students with consent of instructor. Emphasizes techniques and procedures in medically related biochemistry and nutrition, analysis of experimental results. S/U or letter grading.)


220A–220B–220C. Research Laboratory Rotations. (2 to 8 each) Laboratory, two to eight hours. Students arrange apprenticeships in laboratories of one or more departmental faculty members and engage in research project under close faculty direction. Allows students to acquire in-depth laboratory experience in specific research areas and facilitates informed decision on their part in selection of thesis/research advisor. S/U grading.

M229S. Seminar: Current Topics in Bioinformatics. (Seminar, four hours; outside study, eight hours. Designed for graduate and medical students as well as students from biological sciences and medical school. Introduction to current topics in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary research in genetics and genomics. Topics include genome analysis, regulatory genomics, association analysis, association study design, isolated and admixed population structures, 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. (Same as Molecular, Cell, and Developmental Biology M234.) Lecture, four hours. Topics at forefront of molecular developmental biology, including problems of organismal development 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. (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. (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 mechanism of transcription by both eukaryotes and prokaryotes intended for students actively working or highly interested in transcription. S/U grading.

M255. Mitochondria in Medicine, Biology, and Chemistry. (Seminar, five hours; consent of instructor. General biochemistry with emphasis on mammalian systems. Structure, function, and metabolism of mitochondria.)
logical processes involve mitochondrial function and dysfunction. Focus on understanding how mitochondria metabolism, form, and function impact health and disease. Physiology and cell biology of healthy and dysfunctional mitochondria critically 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; cistranscriptional 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 developmental biology home area. S/U grading.

296. Research Seminar Series in Biological Chemistry. (1) Seminar, one hour. Limited to biological chemistry students. Research presentations from second through fourth-year graduate students related to their research. Designed to be highly interactive, with time for questions for 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, one hour. Limited to undergraduate students enrolled in a teaching assistantship. 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. Individually designed examination or Qualifying examination 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 Genetics)
Alexander J. Levine, PhD
Gang Li, PhD
James O. Lloyd-Smith, PhD
Michael E. Phelps, PhD (Norton Simon Professor of Biophysics)
Steven Plantadosi, PhD, In Residence
Marcus L. Roper, PhD
Van M. Savage, PhD
Janet S. Sinhheimer, PhD
Eric M. Sobel, PhD, In Residence
Marc A. Suchard, 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 needs of researchers desiring supplemental biomathematical training.

The Department of Biomathematics welcomes both undergraduate and graduate students in other majors to its courses in modeling, biomedical computing, and statistics. Premedical majors with mathematical/computer interests can receive early guidance toward an MD/PhD program in Biomathematics. The department also provides statistical and biomathematical 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. Requisite: Statistics. Statistical topics include study design, descriptive statistics, elementary probability and distributions, confidence intervals and hypothesis testing, sample size and
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 laboratory and clinical research. S/U or letter grading.


207A. Theoretical Genetic Modeling. (Same as Biostatistics M272 and Human Genetics M207A.) Lecture, three hours; laboratory, one hour. Requisites: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, genetic counseling, design of genetic experiments. DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

207B. Applied Genetic Modeling. (Same as Biostatistics M272B.) Lecture, four hours; laboratory, two hours. Preparation: Biostatistics 200B, 202B (may be taken concurrently) or equivalent coursework or consent of instructor. Coverage of applications to tumor growth and angiogenesis, sleep, androgenic and oestrogenic action, etc. S/U or letter grading.

208A. Modeling in Neurobiology for Mathematicians. (4) Lecture, four hours; laboratory, two hours. Preparation: introductory ordinary partial differential equations, programming experience. Introduction to electrochemical bases for nerve function and mathematical and computational study of these. S/U or letter grading.

208B. Modeling in Neurobiology for Biologists. (4) Lecture, four hours; laboratory, two hours. Preparation: lower-division calculus, some elementary programming knowledge. 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. 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 requirement: course 201. Review of basic physical mechanisms and mathematical analyses used in common bioanalytical assays. Topics include chromatography, electrophoresis, blotting, DNA sequencing, PCR, SELEX, ChIP-sequence, FACS, FRAP, and FISH. S/U or letter grading.


211. Mathematical and Statistical Phylogenetics. (4) (Same as Biostatistics M239 and Human Genetics M211.) Lecture, three hours; laboratory, one hour. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolu- tionary tree reconstruction methods, studies of viral evolution and phylogenetic genealogical coalescent approaches. 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; discussion, one hour. Required 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 regulation and protein-protein interaction networks, glyco- lytic and metabolic oscillations, circadian rhythms, cell cycle controls, intracellular transport cycle, pattern formation in morphogenesis, and action potential models and electrical wave formation and propagation in nerve and cardiac systems. S/U or letter grading.


230. Computed Tomography: Theory and Applications. (4) (Same as Physics and Biology in Medicine M230.) Lecture, four hours. Computed tomography is a three-dimensional imaging technique being widely used in radiology and is becoming active research area in biomimicry. 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.

231. Statistical Methods for Categorical Data. (4) (Same as Biostatistics M231.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 100B or 110B, Statistics 100B. Statistical techniques for analysis of categorical data; discussion and illustra- tion of use of applications and limitations. S/U or letter grading.

232. Statistical Analysis of Incomplete Data. (4) (Same as Biostatistics M232.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 200C, 202C or equivalent. Sources of incomplete data; recognizing familiar methods as solutions to missing-data problems, missing-data mechanisms, weighting and imputation strategies, model-based and design-based inference; likelihood-based and Bayesian methods, statistical computing strategies, multivari- ate models for diverse data types, nonignorable models, review of available statistical software. Emphasis on incorporating incomplete-data perspective into broader statistical-science framework. S/U or letter grading.
M234. Applied Bayesian Inference. (4) (Same as Biostatistics M234.) Lecture, three hours; laboratory, one hour. Requisite: Biostatistics 208B or another substantial regression course. Bayesian approach to statistical inference, with emphasis on biomedically apposite applications, rather than on 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, invited clinical faculty member, and course director. Development of critical ability to evaluate trial design and pitfalls. S/U or letter grading.

260A-M260B. Methodology in Clinical Research I, II. (Same as Medicine M260A-M260B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Requisites: courses 170A, 265A. Course M260A is requisite to M260B. Presentation of principles and strategies of major areas of underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

260C. Methodology in Clinical Research III. (4) (Same as Medicine 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.

261. 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 professional and ethical responsibilities. Letter grading.

262. Communication of Science. (2) (Same as Psychiatry M230L.) Lecture, two hours; discussion, one hour. Preparation 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.

263. Clinical Pharmacology. (2) (Same as Medicine M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (MD, DDS, DNCs, or PhD). Overview of principles of clinical pharmacology, especially as they relate to clinical and translational medicine and to advances in contemporary medicine such as targeting, gene therapy, and genomics. Letter grading.

264. Applied Data Collection and Analysis. (4) Lecture, four hours. Presentation of research project development, including protocol development, data collection, quality control, clinical/electronic health record (EHR) data, structuring data for analysis, and data cleaning. Lecture, in-class practice using actual studies and datasets, and student presentations.

265A. Data Analysis Strategies I. (4) Lecture, two hours; laboratory, two hours. Preparation: MD or PhD degree. 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 findings. Experience with full process of hypothesis generation, operationalization of variables, selection of analysis techniques, and presentation of findings so students are better prepared to complete data analysis, interpretation of results, and written presentation of their findings (e.g., for master’s thesis and subsequent articles). Students encouraged to provide their own data. Databases provided for use in completing exercises for those without available data. Letter grading.

266A. Applied Regression Analysis in Medical Sciences. (4) Lecture, three hours; laboratory, one hour. Requisite: course 170A. Proficiency in applied regression analysis, with focus on interpretation of results and performing computation. Primary topics include simple linear regression, multiple regression, regression model selection, logistic regression, and survival analysis. Letter grading.

266B. Advanced Biostatistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 266A. Continuation of course 266A. Some traditional multivariate methods, such as principal components, factor analysis, cluster analysis, and more contemporary methods, including recursive partitioning and missing data. Multilevel and longitudinal analysis. Letter grading.

2670. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioengineering M296B, Computer Science M296B, and Medicine M270D.) Lecture, four hours; outside study, four hours. Requisites: courses 220 or Bioengineering CM286 or M296A. Estimation methodology, and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with special focus on optimal sampling schedule design for kinetic models. Exploration of PC tools for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

2671. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics M223 and Statistics M254.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requisites: Biostatistics 200B or another substantial statistical methods course. 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. Emphasis on understanding basic statistical concepts and use of statistical inference to solve biological problems. Letter grading.

273. Stochastic Modeling in Molecular Cellular Biophysics. (4) Lecture, three hours; discussion, one hour. Requisite: Mathematics 170A or equivalent. Experience in probability, lower-division physics, or physical chemistry. Most molecular systems are large collections of molecules; behavior of such systems is stochastic. Mathematical descriptions of biochemical reactions with and without energy dissipation, molecular structures, and biophysical techniques that measure various biological processes. S/U or letter grading.


M282. Longitudinal Data. (4) (Same as Biostatistics M236.) Lecture, three hours; laboratory, one hour. Requisite: Biostatistics 208B or another substantial regression course. Analysis of continuous responses for which multivariate normal model may be assumed. Students learn how to think about longitudinal data, plot data, and how to specify mean and variance of longitudinal response. Advanced topics include 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 208B. 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 Bio-mathematics. (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.

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, 127, or 135 (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. 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 investment of 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. (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.

193H. Honors Contracts. (1) Seminar, three hours. Limited to Biomedical Research minor students. Preparation of oral presentations and written essays based on student research at UCLA. May be repeated for credit. Letter grading.

193H. 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 Genetics, Genomics, and Genomics. (4-4-4) Formerly numbered Life Sciences 100HA-100HB-100HC. Lecture, two hours; laboratory, 10 hours. Requisite: course 100H. 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.

193H. Honors Contracts. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NC or letter grading.

193H. Honors Contracts. (2) Seminar, three hours. Limited to Biomedical Research minor students. Preparation of oral presentations based on student research at UCLA. May be repeated for credit. Letter grading.

193H. 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.

BIOSTATISTICS

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Janet S. Sinhaheimer, 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. Discourse on and critical thinking about topics 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 course 110A 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. Prerequisite: 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.

200B. Methods in Biostatistics B. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: linear algebra. Prerequisite: course 200A. Designed for students pursuing graduate degrees in biostatistics. Theory and practice of linear regression analysis and analysis of variance (ANOVA). S/U or letter grading.

200C. Methods in Biostatistics C. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preferred preparation: courses 200A, 200B, and previous coursework in linear algebra. Designed for students pursuing graduate degrees in biostatics. 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. Prerequisites: 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. Prerequisite: 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. Prerequisite: 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.


M210. Statistical Methods for Categorical Data. (4) Same as Biomathematics M231.) Lecture, three hours; discussion, one hour. Prerequisites: 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.

212. Distribution Free Methods. (4) Lecture, three hours; discussion, one hour. Prerequisite: course 200B or Statistics 100B. Theory and application of distribution-free methods in biostatistics. S/U or letter grading.

213. Introduction to Computational Methods in Biostatistics. (4) Lecture, three hours; discussion, one hour. Prerequisites: course 110B, Statistics 100B. Introduction to computational methods in biostatistical inference: simulation techniques, numerical integration, numerical optimization. S/U or letter grading.


M230. Statistical Graphics. (4) Lecture, three hours; laboratory, one hour. Requisite: course 202B (may be taken concurrently). Graphical data analysis emphasizes use of visual displays of quantitative data to gain insight into data structure by exploring patterns and relationships, and to enhance classical numerical analyses, especially assumption validity checking. Principles of graph construction, graphical methods, and perception issues. S/U or letter grading.

M231. Statistical Power and Sample Size Methods for Health Research. (4) Lecture, 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 of randomized trials. Discussion also 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 course in probability. Bayesian approach to statistical inference, with emphasis on biomedical applications and concepts rather than mathematical theory. Topics include large sample Bayes inference from likelihood functions, empirical Bayes, Bayesian approaches to linear and nonlinear regression, model selection, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.

M235. Causal Inference. (4) (Same as Psychiatry M323.) Lecture, three hours; discussion, one hour. Requisites: courses 200C, 202B, or equivalent. Philosophical and paradoxic, decision, causal, analysis, selection bias, confounding, ecological paradox, historical development, potential outcomes, Rubin causal model, propensity scores, competing perspectives in causal inference, and graphical/structural-equation models, experiments with noncompliance, principal stratification, decision making when causality is disputed, role of ethics in decision making. S/U or letter grading.

M236. Longitudinal Data. (4) (Same as Biomathematics M282.) Lecture, three hours; laboratory, one hour. Requisite: course 200B or another substantial regression course. Analysis of continuous response for which multivariate normal model may be assumed. Students learn how to think about longitudinal data, plot data, and how to specify mean and variance of longitudinal response. Advanced topics include introductions to clustered, multivariate, and discrete longitudinal data, S/U or letter grading.

M237. Applied Genetic Modeling. (4) (Same as Biomathematics M207B and Human Genetics M207B) Lecture, three hours; laboratory, one hour. Requisites: courses 200B, 202B (may be taken concurrently) or equivalent coursework or consent of instructor. Covers basic genetic concepts (prior knowledge of human genetics not required). Topics include statistical methodology underlying genetic analysis of both quantitative and qualitative complex traits. Laboratory for hands-on computer analysis of genetic data; laboratory reports required. Course complements M272; students may take either and are encouraged to take both, S/U or letter grading.

M238. Methodology of Clinical Trials. (4) (Same as Biomathematics M234.) Lecture, three hours; discussion, one hour. Requisite: course 200B. Introductory material on design and analysis of clinical trials, including adaptive designs, 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. Requisite: course 200A. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Include evolutionary tree reconstruction methods, studies of viral evolution, phylogeny, and coalescent approach. Examples from population biology and medicine. Laboratory for hands-on computer analysis of sequence data. S/U or letter grading.

241. Spatial Modeling and Data Analysis for Health Sciences. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200B, 202A, 202B. Introduction of various methods for exploring, modeling, and analyzing spatially referenced datasets, with emphasis on environmental/natural sciences and public health. Statistical theory and foundations for carrying out principled and scientifically rigorous inference on spatially referenced datasets and computational methods and algorithms for executing statistical inference in practice. Practical examples and applications demonstrated using open-source statistical software environment R and datasets from diverse fields, such as public health, environment, natural sciences, and economics. Letter grading.

244. Master’s Seminar and Research Resources for Graduating Biostatistics MS Students. (4) (Formerly numbered 240.) Seminar, three hours. Introduction to resources for finding statistical literature. Discussion of principles of making statistical presentations and how to write statistical reports, including writing abstracts and choice of key words. Discussion of journal article presentation forms and refereeing process to help students make progress on their master’s reports. Letter grading.


250A. Linear Statistical Models. (4) Lecture, three hours; discussion, one hour. Recommended preparation: statistics and linear algebra. Designed for students pursuing graduate degrees in biostatistics. Theoretical foundation for linear models with applications to different types of problems in biomedical field. Emphasis on mathematical training and understanding of theory and applications of linear models. Letter grading.

250B. Linear Statistical Models. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B, 200C, 250A. Theoretical foundation for linear models with applications to different types of problems in biomedical field. Emphasis on mathematical training and understanding of theory of linear models, including calculation and tools that may include theory and tests for various types of model misspecification, such as heteroscedasticity and outliers. Other selected topics may include ridge regression, Bayesian analysis, mixed models, REML, prediction, and model selection issues. Some data analysis, instructions for STATA provided. Letter grading.

250C. Multivariate Biostatistics. (4) Formerly numbered 256.) Lecture, three hours; discussion, one hour. Requisites: courses 250A, 250B. Recommended: courses 255A, 255B. Theory and methods for multivariate analysis with non-exclusive focus on biomedical applications. Topics from multivariate linear models, graphical models, component analysis, factor analysis, clustering, discriminant analysis, and applications to longitudinal and clustered data. S/U or letter grading.

255A. Advanced Probability and Statistics. (4) (Formerly numbered 255.) Lecture, three hours; discussion, one hour. Requisites: course 202A or equivalent. Mathematics 131A or consent of instructor. Survey of probability theory, with special emphasis on applications to biostatistics. Topics include probability spaces, random variables, distributions, conditioning, discrete-time martingales, applications to finite sample analysis of statistical procedures. S/U or letter grading.

255B. Advanced Probability and Statistics. (4) (Formerly numbered 256.) Lecture, three hours; discussion, one hour. Requisites: course 255A or consent of instructor, Mathematics 131A. Survey of advanced topics in probability and mathematical statistics, with special emphasis on applications to biostatistics. Topics include laws of large numbers, central limit theorems, basic concepts from stochastic processes, and applications to large sample theory in biostatistics. S/U or letter grading.


M272. Theoretical Genetic Modeling. (4) (Same as Biomathematics M207A and Human Genetics M207A.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 115A, 131A. Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.


275. Advanced Survival Analysis. (4) Lecture, three hours. Requisite: course 200B. Recommended: courses 250A, 255. Time-to-event data arise in many fields, such as medicine, reliability theory, demography, sociology, economics, and astronomy. Overview of common stochastic processes and tools for analysis of such data. Examples include continuous-time Markov chain and semi-Markov models, and frailty and copula models. S/U or letter grading.

276. Inferential Techniques that Use Simulation. (4) Lecture, three hours; discussion, one hour. Requisites: Statistics 200A, 200B. Recommended: course 213. Theory and application of recently developed techniques for statistical inference that use computer simulation. Topics include bootstrap, multiple imputation, data augmentation, stochastic relaxation, and sampling/importance resampling algorithm. S/U or letter grading.


278. Optimal Design Theory and Application. (4) Lecture, three hours. Preparation: basic programming skills. Requisite: Statistics 200B. Presentation of design methodology for regression problems, with applications to multivariate linear models, graphical models, component analysis, factor analysis, clustering, discriminant analysis, and applications to longitudinal and clustered data. S/U or letter grading.


M280. Statistical Computing. (4) (Same as Biomathematics M280 and Statistics M230.) Lecture, three hours. Preparation: basic programming skills. Statistical methods for all areas of research in biostatistics. Topics include probability spaces, random variables, distributions, conditioning, discrete-time martingales, applications to finite sample analysis of statistical procedures. S/U or 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 on current research projects taught by faculty members. Preparation: M210 through 219 or 270 through 276 in Biostatistics. May be repeated for credit. S/U grading.

296. Biostatistical 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 apprentice teachers to discuss both substance of curriculum and appropriate approaches to teaching, learning, and evaluation. May be repeated for credit. S/U grading.

400. Field Studies in Biostatistics. (4) Fieldwork, to be arranged. Field observation and studies in selected community organizations for health promotion or medical care. Students must file field placement and program training documentation on form available from Student Affairs Office. May not be applied toward MS minimum course requirement; 4 units may be applied toward 44-unit minimum total required for MPH degree. Letter grading.

402A. Principles of Biostatistical Consulting. (2) Lecture, one hour; discussion, one hour. Requisite: course 100B or 110B. Presentation of structural format for statistical consulting. Role of statistician and client. Reviews of actual statistician/client interactions and case studies. S/U or letter grading.

402B. Biostatistical Consulting. (4) Discussion, two hours; laboratory, two hours. Requisite: course 402A. Principles and practices of biostatistical consulting. May be repeated for credit. S/U grading.

M403B. Computer Management and Analysis of Health Data Using SAS. (4) (Same as Epidemiology M403B) Lecture, two hours; laboratory, four hours. Designed for doctoral students. Development of experience and expertise in collaborating with faculty in Schools of Public Health and Medicine. Students meet with investigators and develop design and protocol for data analysis, implement data protocol when data is obtained, and write up study with lead investigators. S/U grading.

410. Statistical Methods in Clinical Trials. (4) Lecture, three hours; discussion, two hours. Requisites: courses 100A, 100B. Design of studies in animals to assess antitumor response; randomization, historical controls, p-values, size of study, and stratification in human experimentation; various types of controls; prognostic factors, survivorship studies, and design of prognostic studies; organization of clinical trials—administration, comparability, protocols, clinical standards, data collection and management. S/U (optional 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. Requisite: course 100B. Epidemiology 100. Statistical aspects of design and implementation of sample survey. Techniques for analysis of data, including estimates and standard errors. Avoiding improper use of survey data. Letter grading.

495. Teacher Preparation in Biostatistics. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master's degree minimum total course requirement. May be repeated for credit. S/U grading.

595. Effective Integration of Biostatistical Concepts in Public Health Research. (4) Tutorial, to be arranged. Enforced requisites: courses 110A, 110B, 402, 402A. Students meet weekly with their adviser and also work independently on their proposed projects. Course fosters ability of students to select relevant design and analysis techniques, synthesize knowledge, and apply insights to address public health 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.

CHEMICAL AND BIOMOLECULAR ENGINEERING

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Junyoung Park, PhD

Dante S. Simonetti, PhD

Samarvaya Srivastava, PhD

Scope and Objectives

The Department of Chemical and Biomolecular Engineering conducts undergraduate and graduate programs of teaching and research that focus on the areas of biomolecular engineering, systems engineering, and advanced materials processing and span the general themes of energy/environment and nanoeengineering. Aside from the fundamentals of chemical engineering (thermodynamics, transport phenomena, kinetics, reactor engineering and separations), particular emphasis is given to metabolic engineering, protein engineering, synthetic biology, bio-nano-technology, biomaterials, air pollution, environmental modeling, pollution prevention, molecular simulation, process systems engineering, membrane science, semiconductor processing, chemical vapor deposition, plasma processing, and polymer engineering.

Students are trained in the fundamental principles of these fields while acquiring sensitivity to society’s needs—a crucial combination needed to address the challenge of continued industrial growth and innovation in an era of economic, environmental, and energy constraints.

The undergraduate curriculum leads to a BS in Chemical Engineering and includes the standard core curriculum, as well as biomedical engineering, biomolecular engineering, environmental engineering, and semiconductor manufacturing engineering options. The department also offers graduate courses and research leading to MS and PhD degrees. Both graduate and undergraduate programs closely relate teaching and research to important industrial problems.

Undergraduate Study

The chemical engineering program is accredited by the Engineering Accreditation Commission of ABET.
The Chemical Engineering major is a designated capstone major. The capstone project requires students to first work individually and 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 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL.

The Major

Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and two elective courses (8 units) from Chemical Engineering 110, 111, 112, 113, CM114, C115, C116, C118, C121, C125, C128, C135, C140.

For information on UC, school, and general education requirements, see the College and Schools chapter.

#### Biomedical Engineering Option

##### Preparation for the Major

Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL.

The Major

Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109; Chemistry and Biochemistry 153A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and one biomedical elective course (4 units) from Chemical Engineering C115, C121, C124, C125, CM127, C135, or CM145 (another chemical engineering elective may be substituted for one of these with approval of the faculty adviser).

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, 115, 125, CM145; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two biomedical analysis and design courses (Chemical Engineering 108A, 108B); and one biomedical elective course (4 units) from Bioengineering C105, C183, Chemical Engineering C112, Chemistry and Biochemistry C105, 135A, or C159 (another chemical engineering elective may be substituted with approval of the faculty adviser).

For information on UC, school, and general education requirements, see the College and Schools chapter.

#### Environmental Engineering Option

##### Preparation for the Major

Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 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 113, C118, C121, C128, C135, C140 (another chemical engineering elective may be substituted with approval of the faculty adviser).

For information on UC, school, and general education requirements, see the College and Schools chapter.

#### Semiconductor Manufacturing Engineering Option

##### Preparation for the Major

Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 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, 116; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and one elective course (4 units) from chemical engineering or from Materials Science and Engineering 104, 120, 121, 122, or 150.

For information on UC, school, and general education requirements, see the College and Schools chapter.

#### Graduate Study

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

#### Graduate Degrees

The Department of Chemical and Biomolecular Engineering offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Chemical Engineering.
Chemical Engineering

Lower-Division Courses

2. Technology and Environment. (4) Lecture, four hours; outside study, eight hours. Natural and anthropogenic factors 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 of materials in industrial economies compared and contrasted with natural flows; presentation of lifecycle methods for evaluating environmental impact of processes and products. P/NP or letter grading.

10. Introduction to Chemical and Biomolecular Engineering. (1) Lecture, one hour; outside study, two hours. General introduction to field of chemical and biomolecular engineering. Description of how chemical and biomolecular engineering analysis and design skills are applied for creative solution of current technological problems in production of microelectronic devices, design of chemical plants for minimum environmental impact, and approaches to analysis of nanotechnology to chemical sensing, and genetic-level design of recombinant microbes for chemical synthesis. Letter grading.

19. Fiat Lux Freshman Seminars. (Seminar, one hour.) Discussion of and critical thinking about topics 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 signaling and energy processing, and applications of basic molecular techniques, 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 12 units of courses, including 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. Pick law of diffusion, diffusion in chemically reactive flows, interphase mass transfer, multicomponent systems. Letter grading.

102A. Thermodynamics I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to chemical and biochemical processes. Work, energy, heat, and first law of thermodynamics. Second law, extremum principles, entropy, and its role in process feasibility evaluation. Thermodynamics of flow systems. Applications of first and second laws in biological processes and living organisms. Letter grading.

102B. Thermodynamics II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 102A. Fundamentals of classical and statistical thermodynamics in chemical and biological sciences. Phase equilibria in single and multicomponent systems. Thermodynamics of polymers and biological macromolecules. Letter grading.

103. Separation Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101B. Application of principles of heat, mass, and momentum transport to design and operation of separation processes such as distillation, gas absorption, filtration, and reverse osmosis. Letter grading.

104A. Chemical and Biomolecular Engineering Laboratory I. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: course 100. Enforced corequisite: course 101B. Recommended requisites: courses 101C, 103 (or C125), 106 (or C115). Principles of dynamics modification and start-up behavior of chemical and biological engineering processes. Chemical process control elements. Design and application of chemical process computer control. Letter grading.

104B. Chemical and Biomolecular Engineering Laboratory II. (6) Lecture, four hours; laboratory, eight hours; outside study, four hours; other, two hours. Enforced requisite: 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 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. Enforced corequisite: course 104CL. Basic engineering principles of semiconductor unit operations, including fabrication and characterization of semiconductor devices, investigation of processing steps to fabricate devices, including wafer cleaning, oxidation, diffusion, lithography, chemical vapor deposition, plasma etching, metatization, and statistical design of experiments 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 104C. 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 CMOS devices, including wafer cleaning, oxidation, diffusion, lithography, chemical vapor deposition, plasma etching, and metallization. Hands-on device testing of transistors, diodes, and capacitors. 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 modification and start-up behavior of chemical and biological engineering processes. Chemical process control elements. Design and application of chemical process computer control. Letter grading.

108A. 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 support phenomena, thermodynamics, separation operations, and reaction engineering and simple economic principles for purpose of designing chemical processes and evaluating alternatives. Letter grading.

108B. Chemical Process Computer-Aided Design and Analysis. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 103 (or C125), 106 (or C115), 108A, Civil and Environmental Engineering M20 (or Mechanical and Aerospace Engineering M20). Introduction to application of some mathematical and computing methods to chemical engineering design problems; use of simulation programs as辅助 tools for performing steady state material and energy balance calculations. Letter grading.

109. Numerical and Mathematical Methods in Chemical and Biological Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: 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 biological thermodynamics. Determination of partition function in terms of simple molecular models and spectroscopic data; nonideal gases; phase transitions and air adsorption; nonequilibrium dynamics 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 101C, 102B (or Material Science 130). Fundamentals of cryogenics and cryoengineering science pertaining to industrial low-temperature processes. Basic approaches to analysis of cryofluids and envelopes needed for operation of cryogenic systems; low-tem-
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perature behavior of matter, optimization of cryo-
systems and other special conditions. Concurrently
scheduled with course C211. Letter grading.

C112. Polymer Processes. (4) Lecture; four hours;
discussion, one hour; outside study, seven hours.
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; preparation, two hours; outside study,
six hours. Enforced requisites: courses 101C, 102B. In-
tegrated approach to air pollution, including concentra-
tions of atmospheric pollutants, air pollution stan-
dards, air pollution sources and control technology;
and relationship of air quality to emission sources.
Links air pollution to multimedia environmental as-
seessment. 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 Ma-
terials Science 105A). Fundamentals of electro-
chemistry and engineering applications to industrial elec-
trochemical processes. Primary emphasis on funda-
mental approach to analyze electrochemical processes.
Topics include electrochemical actions on metal and semiconduc-
tor surfaces, electrolyte deposition, electrolysis,
fuel cells, aqueous and non-aqueous batteries, solid-state
electrochemistry. May be concurrently scheduled with course CM214. Letter grading.

C115. Biochemical Reaction Engineering. (4)
Lecture, four hours; discussion, one hour; outside study,
seven hours; preparation, one hour; course 111. Utiliza-
tion of previously learned concepts of physical chemistry,
thermodynamics, transport phenomena, and reaction
kinetics to develop tools needed for technical design
and economic analysis of biochemical reactors. May be
concurrently scheduled with course CM215. Letter grading.

C116. Surface and Interface Engineering. (4)
Lecture, four hours; discussion, one hour; outside study;
seven hours; preparation, one hour; course 111. Introduc-
tion to surfaces and interfaces of engineering materials, particularly catalytic surface and thin films for solid-state electronic devices.
Topics include classification of crystals and surfaces, analysis of molecular arrangement of crystals and their surfaces and interfaces. Examination of engi-
nearing applications, including catalytic surfaces, in-
terfaces in microelectronics, and solid-state lasers. May be concurrently scheduled with course C216. Letter grading.

C118. Multimedia Environmental Assessment. (4)
Lecture, four hours; discussion, one hour; prepara-
tion, two hours; outside study, five hours. Recom-
mended requisites: courses 101C, 102B. Pollutant
sources, estimation of source releases, waste mini-
imization, transport and fate of chemical pollutants in en-
vironment, intermediation of transfers of pollutants, and
environmental assessment and partioning in environ-
ment, exposure assessment and fundamentals of risk
assessment, risk reduction strategies. Concurrently
scheduled with course 211. Letter grading.

C119. Pollution Prevention for Chemical Process-
es. (4) Lecture, four hours; discussion, one hour; out-
side study, seven hours. Enforced requisite: course 108A. Systematic methods for design of environ-
ment-friendly process and development of methods of
control, unit-operation, and network levels. Syn-
thesis of mass exchange, heat exchange, and reactor

C121. Membrane Science and Technology. (4)
Lecture, four hours; discussion, one hour; outside study;
seven hours. Enforced requisites: courses 101A, 101C, 103. Fundamentals of membrane science and
technology, with emphasis on separations at micro,
nano, and molecular/angstrom scale with mem-
branes. Relationship between structure/morphology of dense and porous membranes and their separation
characteristics. Use of nanotechnology for design of
selective membranes and models of membrane transport (flux and selectivity). Examples provided from various
fields/applications, including biotechnology, micro-
electronics, chemical processes, sensors, and biomedical devices. Concurrently scheduled with course C221. Letter grading.

C124. Cell Material Interactions. (4) Lecture, four
hours; discussion, one hour; outside study, seven hours.
Requisites: Life Sciences 2, 3, 23L. Introduction
to design and synthesis of biomaterials for regener-
ative medicine. Use of cell/molecular interactions,
transport and fate of chemical pollutants in en-
vironment, intermedia transfers of pollutants, multi-
dimensional and multi-scale perspectives in environ-
mental approach to analyze electrochemical
processes. Production of advanced biofuels involves designing and constructing novel
metabolic networks in cells. Such efforts require profound understanding of biochemistry, protein
structure and function, and genetic constraints. Letter grading.

C127. Synthetic Biology. (4) (Same as Chemistry
CM127.) Lecture, four hours; discus-
sion, one hour; outside study, seven hours. Requisite:
Chemistry 153A. Engineering microorganisms for
complete orificess is common goal of metabolic en-
ingineering for various fields/applications. Production of
advanced biofuels involves designing and constructing novel
metabolic networks in cells. Such efforts require profound understanding of biochemistry, protein
structure and function, and genetic constraints. Letter grading.

C128. Hydrogen. (4) Lecture, four hours; discussion,
one hour; outside study, seven hours. Enforced requi-
site: Chemistry 20A. Electronic, physical, and chem-
ical properties of hydrogen. Various methods of pro-
duction, including steam reforming, electrolysis,
and thermochemical cycles. Description in depth of several uses of hydrogen, in-
cluding hydrogen combustion and hydrogen fuel
cells. Concurrently scheduled with course C228. Letter
ggrading.

C135. Advanced Process Control. (4) Lecture, four
hours; discussion, one hour; outside study, seven hours.
Requisites: course 107. Introduction to advanced process control. Topics include (1) Lya-
punov stability for autonomous nonlinear systems in-
cluding converse theorems, (2) input to state stability,
interconnected systems, and small gain theorems, (3) design of nonlinear 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-
roduction to control of distributed parameter sys-
tems. Concurrently scheduled with course C235. Letter
ggrading.

C140. Fundamentals of Aerosol Technology. (4)
Lecture, four hours; discussion, one hour. En-
forced requisite: course 101C. Technology of particle/gas
systems with applications to gas cleaning, com-
mercial production of fine particles, and catalysis.
Particle transport and deposition, industrial
experimental methods, dynamics and control of par-
ticle formation processes. Concurrently scheduled
with course C240. Letter grading.

C145. 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, antibodies, diagnostics, genomics, bioinformatics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM245. Letter
grading.

M153. Introduction to Microscale and Nanoscale
Manufacturing. (Same as Bioengineering M153, Elec-
trical and Computer Engineering M153, and Me-
chanical Engineering M153.) Lecture, four
hours; three hours; laboratory, four hours; outside
study, five hours. Enforced requisites: Chemistry 20A,
Physics 1A, 1B, 4AL, 4BL. Introduction to general
manufacturing methods, mechanisms, constraints, and
microfabrication and nanofabrication. Focus on
concepts, physics, and instruments of various 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 for fabricating microstructure and nanostructure
systems in modern cleanroom environment. Letter
ggrading.

188. Special Courses in Chemical Engineering. (4)
Seminar; four hours; outside study, eight hours. Sped-
topic in chemical engineering for undergraduate students. Topic on experimental design and ap-
plication, such as those taught by resident and visiting faculty
members. May be repeated once 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/se-
niors. Supervised individual research or investigation of selected topic under guidance of faculty mentor.
Culminating paper or project required. May be re-
peated 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 thermo-
termics of chemical engineering 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-
ioues ensembles. Applications to liquids, solids, and
polymers. Letter grading.

210. Advanced Chemical Reaction Engineering. (4)
Lecture; four hours; outside study, eight hours.
Requisites: courses 101C, 106. Principles of chemical
reactor analysis and design. Particular emphasis on
simultaneous effects of chemical reaction and mass
transport in noncatalytic reactions in fixed and fluidized beds. Letter grading.

211. Cytogenics and Low-Temperature Process-
es. (4) Lecture; four hours; discussion, one hour;
outside study, seven hours. Fundamentals of cyrogens
and low-temperature engineering science toindustrial
low-temperature processes. Basic approaches to
analysis of cryofluids and envelopes needed for oper-
ation of cryogenic systems; low-temperature behavior of matter, optimization of cryosystems and other spe-
cial conditions. Concurrently scheduled with course C111. Letter grading.
C125. Biochemical Reaction Engineering. (4) Lecture and discussion, four hours; outside study, seven hours. Enforced requisite: course 101C. Use of previously learned concepts of chemical engineering, thermodynamics, and reaction kinetics to develop tools needed for technical design and economic analysis of biochemical reactors. May be concurrently scheduled with course C115. Letter grading.

C216. Surface and Interface Engineering. (4) Lecture, four hours; outside study, seven hours. Introduction to surfaces and interfaces of engineering materials, particularly catalytic surface and thin films for solid-state electronic devices. Topics include crystallography, analysis of structure and composition of surfaces and their interfaces, examination of engineering applications, including catalytic surfaces, interfaces in microelectronics, and solid-state laser. May be concurrently scheduled with course C116. Letter grading.

217. Electrochemical Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course C114. Transport phenomena in electrochemical systems; relationships between molecular transport, convection, and electrode kinetics, along with applications to industrial chemistry, fuel cell design, and modern battery technology. Letter grading.


C220. Mass and Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 101C. Advanced treatment of mass transfer, with applications to industrial separation processes, gas cooling, power engineering, cold-plate systems, and reactor design; molecular and constitutive theories of diffusion, interfacial transfer, membrane transport, convective mass transfer, concentration boundary layers, turbulent transport. Letter grading.

C221. Membrane Science and Technology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 101A, 101C, 103. Fundamentals of membrane science and technology, with emphasis on separations at micro-, nano-, and molecular/angstrom scale with membranes. Relationship between structure/morphology, of dense and porous membranes and their separation characteristics. Use of nanotechnology for design of selective membranes and membranes transport (flux and selectivity). Examples provided from various fields/applications, including biotechology, microelectronics, chemical processes, sensors, and biomedical. Letter grading.


C223. Design for Environment. (4) Lecture, four hours; outside study, eight hours. Limited to graduate chemical engineering, materials science and engineering, or Master of Engineering program students. Design of chemical processes that meet economic and objective; lifecycle inventories; lifecycle impact assessment; design for energy efficiency; design for waste minimization, computer-aided design tools, materials selection methods. Letter grading.

C224. Cell Material Interactions. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Life Sciences 2, 3, 23L, Introduction to and design and synthesis of biomaterials for regenerative medicine, in vitro cell culture, and drug delivery. Biological principles of cellular microenvironment and design of extracellular matrix analogs using biomembranes and tissue engineering. Biomaterials for growth factor, and DNA and siRNA delivery as therapeutics and to facilitate tissue regeneration. Use of stem cells in tissue engineering. Concurrently scheduled with course C125. Letter grading.

CM225. Bioseparations and Bioprocess Engineering. (4) Same as Bioengineering M225. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 101C. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are products of biological reactions. Concurrently scheduled with course C125. Letter grading.

CM227. Synthetic Bio for Biofuel. (4) Same as Chemistry CM227. Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced corequisite: course 101C. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are products of biological reactions. Concurrently scheduled with course C125. Letter grading.

CM228. Hydrogen. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Chemistry 20A. Electronic, physical, and chemical properties of hydrogen. Various methods of production, including production through methane steam reforming, electrolysis, and thermochemical cycles. Description in depth of several uses of hydrogen, including hydrogen combustion and hydrogen fuel cells. Concurrently scheduled with course C128. Letter grading.


231. 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, ion-molecule reactions. Applications to air pollution control and to catalysis. Letter grading.


233. Frontiers in Biotechnology. (2) Lecture, one hour. Requisite: Life Sciences 3. Integration of science and business in biotechnology. Academic research leading to licensed and/or marketable 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 and engineering students. Application of chemistry, physics, and engineering principles to design and operation of plasma and ion-beam reactors used in etching, deposition, oxidation, and cleaning of materials. Examination of atomic, molecular, and ionic phenomena involved in plasma and ion-beam processing of semiconductors, etc. Letter grading.

C235. Advanced Process Control. (4) Lecture, four hours; discussion, one hour; outside study, eight 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. Letter grading.

236. Chemical Vapor Deposition. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 210, 216. Chemical vapor deposition is widely used to deposit thin films through electronic devices. Topics include reactor design, transport phenomena, gas and surface chemical kinetics, structure and composition of deposited films, and relationship between chemical 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 particle formation processes. Concurrently scheduled with course C140. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4) (Same as Biology M245.) Lecture, four hours; discussion, one hour; outside study, seven hours. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Introduction to molecular biology, molecular research tools, manipulation of gene expression, directed mutagenesis and protein engineering, DNA-based diagnostics and DNA microarrays, artificial gene-based diagnostics, genomics and bioinformatics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM145. Letter grading.


250. Computer-Aided Chemical Process Design. (4) Lecture, four hours; outside study, eight hours. Requisites: fundamental chemical engineering courses and a good knowledge of linear algebra. Optimization of design and operations of large-scale chemical processing systems. Letter grading.

259. Theory of Applied Mathematics for Chemical Engineers. (4) Lecture; outside study, six hours. Application 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 Phenomena. (4) Lecture, four hours; laboratory, eight hours. Fundamentals in transport phenomena, chemical reaction kinetics, and thermodynamics at molecular level. Topics include Boltzmann equation, microscropic chemical kinetics, transition state theory, and statistical analysis. Examination of engineering applications related to state-of-art research areas in chemical engineering. Letter grading.

270R. Advanced Research in Semiconductor Manufacturing. (2 to 12) 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 Mecha-nical and Aerospace Engineering 171A. State-space description of linear time-invariant (LTI) and time-varying (LTV) systems in continuous and discrete time. Linear systems 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 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, dynamic programming, Pontryagin maximum principle, and Jacobi/Bellman equation (dynamic programming) to optimal control of dynamic systems modeled by non-linear ordinary differential equations. Letter grading.


283C. Analysis and Control of Infinite Dimensional Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: course M280A or Mathematical Engineering 240A. Introduction for graduate students. Introduction to advanced dy-namical analysis and controller synthesis methods for nonlinear infinite dimensional systems. Topics include (1) basic theory of linear or nonlinear semigroups on Banach and Hilbert spaces, semigroup theory, convergence theory in function spaces), (2) nonlinear model reduction (linear and nonlinear Galerkin methods, Proper orthogonal decomposition), (3) non-linear and robust control of nonlinear hyperbolic and parabolic partial differential equations (PDEs), (4) ap-plications to transport-reactance processes. Letter grading.


289. 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 reactionless dynamics and control, fuel cells and batteries, membrane transport, advanced chem-ical engineering analysis, polymers, optimization in chemical processing, 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 and industrial personnel employment as teaching assistant, associate, or full professor. Letter grading.

M299. Departmental Seminar. (2) Seminar, two hours. Limited to graduate chemical engineering students. Preparation for oral qualifying examination, including use of 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 chemical 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 16) Seminar, to be arranged. Limited to graduate chemical engineering students in MS semiconductor manufacturing option. Reading and prepa-ra-tion for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Seminar, to be arranged. Limited to graduate chemical engineering students. Supervised inde-pendent 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 chemical engineering students. Usually taken after students have been advanced to candi-dacy. S/U grading.

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Kyle D. Bayes, PhD
Frank A. L. Anet, PhD
Joan S. Valentine, PhD
Craig L. Busing, PhD
Joan S. Valentine, PhD
Charles M. Knobler, PhD
Charles A. West, PhD
Associate Professors
Anastassia N. Alexandrova, PhD
Delroy A. Baugh, PhD
Louis S. Bouchard, PhD
Yung-Ya Lin, PhD
Margot E. Quinlan, PhD
Jorge Z. Torres, PhD
Roy Wollman, PhD
Assistant Professors
Keriann M. Backus, PhD
Justin R. Caram, PhD
Sriram Kosuri, PhD (Linda and Fred Wudl Term Professor)
Chong Liu, PhD
Hosea M. Nelson, PhD
Jose A. Rodriguez, PhD (Howard Reiss Career Development Professor)
Ellen M. Slatten, PhD (John McCutagge Career Development Professor)
Alexander M. Spokoyny, PhD
Senior Lecturer SOE
Arlene A. Russell, PhD
Senior Lecturers
Steven A. Hardinger, PhD
Laurence Lavalle, PhD
Lecturer
Eric R. Sowers, PhD
Adjunct Professors
Aapge Aawad, PhD
Christian Beren, PhD
Shuming Chen, PhD
Zhao Li, PhD
Assistant Adjunct Professors
J. Rachel Prado, PhD
Roshini Ramachandran, PhD
Scope and Objectives
Chemistry is concerned with the composition, structure, and properties of substances, the transformations of these substances into other reacting species, and the kinds of energy changes that accompany these reactions. The Department of Chemistry and Biochemistry is organized in four interrelated and overlapping subdisciplines that deal primarily with the chemistry of inorganic substances (inorganic chemistry), the chemistry of carbon compounds (organic chemistry), the chemistry of living systems (biochemistry), and the physical behavior of substances in relation to their structures and chemical properties (physical chemistry). The Chemistry/Materials Science major is designed for students who are interested in the applications of chemistry for the design, synthesis, and study of new materials.

Undergraduate Study
The department offers four majors: Chemistry (with concentrations in chemistry and physical chemistry), Biochemistry, General Chemistry, and Chemistry/Materials Science. The Chemistry and Biochemistry majors are designed to prepare students for graduate studies in each field, for entry into professional schools in the health sciences, and for careers in industries and businesses that depend on chemically and biochemically based technology. The General Chemistry major is intended for students who wish to acquire considerable chemical background in preparation for careers outside chemistry. The Chemistry/Materials Science major provides appropriate preparation for graduate studies in fields that emphasize research involving chemistry, engineering, and applied science.

Each course used to fulfill any of the requirements for any of the departmental majors must be taken for a letter grade. Seminar courses, individual study courses, and research courses (e.g., 194, 199) may not be applied toward the requirements for the majors.

Requirements for the majors are outlined below. For additional information, contact the Undergraduate Advising Office in 4006 Young Hall for assistance with the articulation of transfer coursework.

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, and 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 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), 153A, 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; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 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, 110B, 113A, 135A, 135B, 135C, 135L, 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, 33A, 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, 110B, 113A, 153A, 153L, 171; three additional upper-division courses in the department (at least one must be a laboratory course; six additional upper-division courses are required). A 2.0 grade-point average is required in all upper-division courses in the department. Acceptance into the major is based on an original written proposal that is coherent in terms of student interests and objectives. The proposal should specify which courses students plan to apply toward the ma-
Chemistry/Materials Science BS

The Chemistry/Materials Science major is designed for students who are interested in chemistry with an emphasis on material properties and provides students the opportunity to gain expertise in both chemistry and the science and engineering in materials such as semiconductors, photonic materials, polymers, biomaterials, ceramics, and nano-scale structures. Students explore the reactivity of such materials in different environments and gain understanding of how chemical compositions affect properties. The major provides appropriate preparation for graduate studies in many fields emphasizing interdisciplinary research, including chemistry, engineering, and applied science.

Learning Outcomes

The Chemistry/Materials Science major has the following learning outcomes:

- Understanding of the foundations of materials chemistry including nanoscience, materials synthesis, and materials processing
- Understanding of different methods for materials characterization, measurement of materials properties, and general structure/function relationships
- Familiarity with laboratory methods for materials chemistry and practical laboratory experience with such methods, including X-ray diffraction, optical absorption and fluorescence spectroscopies, electrical measurements, and electron and scanning probe microscopies
- Understanding of basic operational principles for a broad range of practical devices (e.g., LEDs, photovoltaics, electrochromics, etc.) from a fundamental materials perspective
- Safely and effectively work in a materials laboratory setting
- Knowledge of how to handle chemicals in a safe manner following OSHA-approved regulations and procedures
- Knowledge of how to use information resources to search and access safety databases
- Use of computers, including data acquisition and software tools for calculating and understanding materials properties
- Demonstrated broad mastery of materials chemistry including critical thinking, problem solving, working effectively in diverse groups
- Communication of knowledge through written reports and oral presentations

Preparation for the Major

Required: Chemistry and Biochemistry 110A, 113A, 171, 172 or C180 or C181, 185, 4 units from 110B, C113B, 172, C174, C175, C176, C180, C181; Materials Science and Engineering 10A, 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, 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, collection 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 applications of nanoscience and nanotechnology in other research fields and industries. Laboratories introduce students to research methods, experiment development, scientific writing, and presentations. Students devise and execute their own exploratory nanoscience experiments, and present them to technical audience. Offered only as part of Summer Institute. P/NP grading.

14A. 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 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 structure, valence bond theory, quantum mechanical atomic properties; trends in periodic table; chemical bonding (Lewis structures, VSEPR theory, hybridization, and molecular orbital theory); coordination compounds; properties and properties of organic acids, bases, buffers. P/NP or letter grading.

14B. Thermodynamics, Electrochemistry, Kinetics, and Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 14A with grade of C– or better. Enforced requisite 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; reaction kinetics; chemical equilibrium; 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 requisite: course 14A with grade of C– or better. Enforced corequisite: course 14B. Not open to students with credit for course 20L. Introduction to volumetric, spectrophotometric, and potentiometric analysis. Use and preparation of buffers and pH meters. Synthesis and kinetics techniques using compounds of interest to students in life sciences. P/NP or letter grading.

14CL. General and Organic Chemistry Laboratory II. (4) Lecture, one hour; laboratory, six hours. Enforced requisite: courses 14B and 14BL, with grades of C– or better. Enforced corequisite: course 14C. Synthesis and identification of compounds; purification by extraction, chromatography, recrystallization, and sublimation; characterization by mass spectroscopy, UV, NMR, and IR spectroscopy, optical activity, electrochemistry, pH titrations, and letter grading.

14D. Organic Reactions and Pharmaceuticals. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 14C with grade of C– or better. Organic reactions, nucleophilic and electrophilic substitution and additions; electrophilic aromatic substitution, carbon-based reactions, catalysis, molecular basis of drug action, and organic chemistry of pharmaceuticals. 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 and understanding. Open to students with credit for course 20A. P/NP or letter grading.

20A. Chemical Structure. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one half years of high school mathematics. Recommended preparation: high school physics. Enforced corequisite: Mathematics 31A. First term of general chemistry. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bonding, molecular spectroscopy, and P/NP or letter grading.

20AH. Chemical Structure (Honors). (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background, high school physics, and grade of B+ or better. Limited to high school students. Introduction to chemical structure and bonding. Enforced corequisite: Mathematics 31A. Honors course parallel to course 20A. P/NP or letter grading.


20BH. Chemical Energies and Change (Honors). (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 20A or 20AH, 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. Preparation: high school chemistry, or grade of B or better. Enforced requisite: course 20A with grade of C– or better. Enforced corequisite: course 20B or 20BH, with grade of B+ or better. Corequisite: course 30A with grade of C– or better. Credit for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

30A. Organic Chemistry I: Structure and Reactivity. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry, or grade of B or better. Enforced requisite: course 30AH with grade of 3.0 or better. Limited to Program for Excellence in Education (PEERS) students. Enforced corequisite: upper-division lecture course. Exploration of topics in greater depth, with emphasis on applications of current importance, taught by faculty members. P/NP or letter grading.

30A, 30AH. Organic Chemistry I: Structure and Reactivity (Honors). (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry, or grade of B or better. Enforced requisite: course 20AH with grade of 3.0 or better. Limited to students who have completed an advanced level chemistry course. Internship credit for a minimum of one unit. Honors content noted on transcript. Letter grade.

30A, 30AH. Organic Chemistry I: Structure and Reactivity. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry, or grade of B or better. Enforced requisite: course 20AH with grade of 3.0 or better. Limited to students who have completed an advanced level chemistry course. Internship credit for a minimum of one unit. Honors content noted on transcript. Letter grade.

98X. 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.

98XH. 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.
C100. Genomics and Computational Biology. (4) Lecture, two hours; laboratory, two hours. Entry-level research 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 organism (e.g., over 80 percent of drug candidates fail in clinical trials). High-throughput technologies such as sequencing, microarrays, mass-spec, and robotics have given biologists incredible new capabilities to analyze complete genomes, epigenomes, functions, and interactions across whole organisms, populations, and species. Use and analysis of such datasets becomes essential daily activity for biomedical scientists. Core prerequisites for analyzing data to answer biological and medical questions, with focus on concepts that guide data analysis rather than algorithm details. Concurrently scheduled with course C200, P/NP or letter grading.

103. Environmental Chemistry. (4) Lecture, four hours; discussion, one hour. Requisites: courses 30B, 30BL, 110A, 153A (or 153AH), 153L. Chemical aspects of air and water pollution, solid waste disposal, energy and environ-mental effects; actions in environment and effect of chemical pro-cesses on environment. P/NP or letter grading.

C105. Introduction to Chemistry of Biology. (4) Lecture, four hours; discussion, one hour. Concurrently scheduled with course 153A with grade of C– or better. Introduction to chemical biology. Topics include computational chemical biology, utility of synthesis in biochemical research, peptidomimetics, designed reagents for cellular labeling, protein engineered and directed evolution, cell biology of metal ions, imaging metal ions in cells, metal-containing enzymes; applications in catalysis and organic synthesis. Concurrently scheduled with course C207. P/NP or letter grading.

C107. Organometallic Chemistry. (4) Lecture/discus-sion, three hours. Enforced requisite or corequisite: course 172. Survey of synthesis, structure, and reactivity (emphasizing mechanistic approach) of compounds containing carbon bonded to elements selected from main group metals, metalloids, and transition metals, including olefin complexes and metal carbonyls; applications in catalysis and organic synthesis. Concurrently scheduled with course C207. P/NP or letter grading.

C108. Mass Spectrometry for Chemists and Biochemists. (2) Lecture, one hour; laboratory, four hours. Introduction to principles and practice of organic and inorganic mass spectrometry. Topics include EI, CI, ICPS, GC/MS, LC/MS, ESI, MALDI, MS/MS protein identification, and proteomics. Concurrently scheduled with course C208. P/NP or letter grading.

110A. Physical Chemistry: Chemical Thermodynamics. (4) Lecture; three hours; discussion, one hour; laboratory, two hours. Requisites: courses 20B, Mathematics 32A or 3C (for life sciences majors), Physics 1A, 1B, and 1C (may be taken concurrently), or 1AH, 1BH, and 1CH (may be taken concurrently), or 5A, 5B, and 5C (may be taken concurrently). Fundamentals of thermodynamics, chemical and phase equilibria, thermodynamics of solutions, electrochemistry. P/NP or letter grading.


113A. Physical Chemistry: Introduction to Quantum Mechanics. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: courses 20B, Mathematics 32A, 32B, 33B, Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH. Departure from classical mechanics: Schrödinger versus Newton equations; model systems: particle-in-a-box, harmonic oscillator, rigid rotor, and hydrogen atom; approximation methods: perturbation and variational methods; many-electron atoms, spin, and Pauli prin-ciple, chemical bonding, P/NP or letter grading.


114C. Physical Chemistry Laboratory (Honors). (5) Lectures include techniques of physical measurement, error analysis and statistics, special topics. Laboratory includes spectroscopy, thermodynamic measurement, and chemical dynamics. P/NP or letter grading.

114H. Physical Chemistry Laboratory (Honors). (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 measurement, and chemical dynamics. P/NP or letter grading.


M117. Structure, Patterns, and Polyhedra. (5) Same as Honors Collegium M180). Lecture, four hours; activity. Exploration of structure and their geometric underpinnings, with examples and applications from architecture (space frames, domes), biology (enzyme complexes, viruses), chemis-try (symmetry, molecular cages), design (tiling), engi-neering (space tiling), and physics (crystal structures) to effect understanding knowledge of symmetry, two-di-men-sional patterns, and three-dimensional solids. P/NP or letter grading.

118. Covalent Dynamics Laboratory. (4) Lecture, two hours; laboratory, eight hours. Requisites: courses 110A and 110B, with grades of B or better, or equivalently electrical engineering courses from engi-neering, mathematics, or physics. One aspect of dis-persions of microscopic particles in viscous liquids is that such dispersions can be used as visual model systems for studying phases that chemistry under-graduate students typically learn about for nanoscale and molecular systems, yet they do not see. Tem-perature continuously excites molecules and causes rearrangements, giving dynamic views of macromole-cules and particles in many fields, including cell and molecular biology, chemical engineering, chemistry, and physics.

M120. Soft Matter Laboratory. (4) [Same as Physics M180G) Laboratory. Four hours. P/NP or letter grading.

121. Special Topics in Physical Chemistry. (4) Lecture, four hours. Requisite: course 110B. Con-temporary topics in theoretical chemistry. Concurrently scheduled with course C215C. P/NP or letter grading.

C122. Mathematical Methods for Chemistry. (4) Lecture, four hours. Enforced requisites: Mathematics 31A, 31B, 32A, 32B. Review of basic mathematics necessary to study physical chemistry at graduate level. 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 C222. P/NP or letter grading.

C123A-C123B. Classical and Statistical Thermodynamics. (4–4) Lecture, four hours; discussion, one hour. Concurrently scheduled with course C113A. Rigorous presentation of fundamentals of classical thermodynamics. Principles of statistical thermodynamics: probability, ensembles, partition functions, independent molecules, and perfect gas. Applications of classical and statistical thermodynamics selected from diatomic and polyatomic gases, solid and fluid phases, phase equilibria, electric and magnetic effects, ortho-para hydrogen, chemical equilibria, reaction rates, imperfect gas, nonel ectrolyte and electrolyte solutions, surface phenomena, high polymers, gravitation. May be concurrently scheduled with courses C223A-C223B. P/NP or letter grading.

125. Computers in Chemistry. (4) Lecture, three hours; computer laboratory, one hour. Requisites: courses 110A and 110B, with grades of C– or better. Development of data management and visualization skills through scientific programming and data analysis, structural databases and molecular modeling methods. Hands-on computer laboratory experience with wide range of open source and commercial scientific software. P/ N P or letter grading.

C126A. Computational Methods for Chemists. (4) Lecture, four hours; laboratory, four hours. Preparation: promising experience from BAC- Tron, C, C++, Java, or Pascal. Requisites: courses 110A, 113A, Mathematics 33A. Theoretical, numer-ical, and programming tools for constructing new chemical applications, including computer-aided tools and resulting statistical mechanics for simple mole-cules, simple ab-initio methods for organic molecules and nanotubes, and classical dynamics and spectroscopy. Concurrently scheduled with course C226A. P/NP or letter grading.

CM127. Synthetic Biology for Biofuels. (4) Same as Chemical Engineering CM127.) Lecture, four hours; discussion, one hour. Requisite: course 153A. Engineering microorganisms for complex phenotype is a common goal of metabolic engineering and syn-the tic biology. Production of advanced biofuels in-volves designing and constructing novel metabolic networks in cells. Such efforts require profound un-derstanding of biochemistry, protein structure, and bi-
C155. Mitochondria in Medicine, Biology, and Chemistry. (1) Seminar, two hours every other week. Open to undergraduate and graduate science majors considering or currently conducting research in areas related to mitochondria. Large number of physiological and pathological secrets of mitochondrial function and dysfunction. Focus on understanding how mitochondria metabolism, form, and function impact health and disease. Physiology and cellular mechanisms of healthy mitochondria critically assessed at subcellular, cellular, tissue, and organismal levels. Topics include in-depth analyses of literature and critical evaluations of experimental design and methods of current research. May be repeated for credit. Concurrently scheduled with course CM255. P/NP grading.

156. Physical Biochemistry. (4) Lecture, four hours; discussion, one hour. Requisites: courses 110A, 153A, Biochemical kinetics; solution thermodynamics of biochemical systems; multiple equilibria; hydrodynamics; energy levels, spectroscopy, and bonding; topics from statistical, thermodynamic, and kinetic methods of biochemistry, P/NP or letter grading.

C159. Mechanisms of Gene Regulation. (4) Formerly numbered C159A.) Lecture, four hours. Requisites: course 153B. RNA polymerase structures and mechanisms; promoter recognition and transcription cycle; mechanisms of activation; transcriptional and translational regulation; Mediator of transcription; chromatin remodeling and modification; epigenetic regulation; co-transcriptional and post-transcriptional RNA processing; impact of transcription on mRNA processing and stability; nuclear export of mRNA. Concurrently scheduled with course CM259. P/NP or letter grading.

CM160A. Introduction to Bioinformatics. (4) (Same as Computer Science CM121.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 2 or Program in Computing 10A 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 Computer Science CM121.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better. May be concurrently scheduled with course CM159B. P/NP or letter grading.

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 C281A. P/NP or letter grading.

C163. Membrane Protein Structure and Function. (4) Lecture, four hours. Enforced requisite: course 156. Detailed examination of how various membrane proteins work. Topics include lipid bilayer properties and how they affect membrane protein function and binding; membrane protein biogenesis; principles of transport across membranes; how channels, transporters, and receptors work at atomic level. Emphasis on understanding the structural basis of membrane protein function and the mechanisms by which they perform their biological roles.
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. Exploration of free radicals in mitochondrial metabolism, neurodegenerative diseases, apoptosis, and aging. Discussion of radical reactions, how they are harnessed to achieve enzyme catalysis, and how they contribute to late essential biological processes. These same reactions “run amok” under certain types of stress and can contribute to wide variety of diseases, including neurodegenerative diseases (e.g., Huntington’s, Parkinson’s, and Alzheimer’s diseases), mitochondrial diseases, atherosclerosis, and aging. Concurrently scheduled with course C264. P/NP or letter grading.


166. RNA Structure, Recognition, and Function. (4) Lecture, three hours; discussion, one hour. Requistes: courses 14BL and 14CL, or 20L and 30AL, or Science Education 100SL. Intended for students who are planning careers in secondary science chemistry teaching. Complements service learning California Teach science courses that involve teaching field experiences in middle school and high school classrooms. Examination of chemistry issues such as curricular change and use, waste management, labora- ratory organization, safety, and techniques. P/NP or letter grading.

169C. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Directed individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities 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.

192A-192B. Undergraduate Practicum in Chemistry and Biochemistry. (4–4) Lecture, one hour; laboratory, four hours; workshop, two hours. Enforced requisites: courses 14BL and 14CL, or 20L and 30AL, or Science Education 100SL. Intended for students who are planning careers in secondary science chemistry teaching. Complements service learning California Teach science courses that involve teaching field experiences in middle school and high school classrooms. Examination of chemistry issues such as curricular change and use, waste management, labora- ratory organization, safety, and techniques. P/NP or letter grading.

192C-192D. Undergraduate Assistant Education Practicum in Chemistry and Biochemistry. (4–2) Seminar, one hour; assigned setting, six hours (course 192C) or five hours (course 192D). Limited to juniors/ seniors. Training and supervised practicum for ad- vanced undergraduate students to assist in chemistry and biochemistry laboratory courses. Prepares students for teaching assistantships, including preparation of supplementary materials and development of innovative pro- grams under guidance of faculty members and teaching assistants. May not be applied toward course requirements for any departmental major. May be repeated for credit with consent of instructor. Indi- vidual contract required. Information and contracts may be obtained from department, P/NP grading.

193A. Journal Club Seminars: UC LEADS and MARC. (2) Seminar, three hours. Designed for juniors/ seniors in undergraduate research training programs such as UC LEADS and MARC or those who have substantial commitment to research. Weekly oral and written presentations of research or research papers selected from current literature. May be re- peated for credit. Letter grading.

193B. Journal Club Seminars: Chemistry and Bio- chemistry. (2) Seminar, three hours. Limited to under- graduate students. Discussion of readings selected from current literature in particular field. May be re- peated 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 groups. Enforced student topics completed in physical, organic, or inorganic chemistry or bio- chemistry. Discussion of current research and litera- ture 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/entrants. Entry-level re- search apprenticeship for upper-division students interested in gaining faculty teaching experience and for department for additional information regarding require- ments, enrollment petitions, and written proposal deadlines. May be repeated for maximum of 8 units. Individual contract required. Letter 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/entrants. 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. Enrolled; restricted to junior and senior research students 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 percent of drug candidates fail in clinical trials). High-throughput technologies such as sequencing, microarrays, mass-spectrometry, and robotics have given biologists incredible new capabilities to analyze complex genomes, expression patterns, functions, and interactions across whole organisms, populations, and species. Use and analysis of such datasets becomes essential to current medical scientists. Presented are principles and methodologies for analyzing genomics data to answer biological and medical questions, with focus on concepts that guide data analysis rather than algorithmic details. Concurrently scheduled with course C100. S/U or letter grading.

201. Scientific Proposal Writing. (2) Lecture, three hours. Designed for graduate biochemistry and molecular biology students. How to write scientific proposals to 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 conduct of research. S/U grading.

203C. Research Integrity and Ethics in Genetics Research. (2) Lecture, 90 minutes. Data analysis and management, statistical methods, use of commercial reagents, microscopy data analysis, figure preparation, authority of principal investigator, animal subject protection, animal subject protection, and conflict of interest. May be repeated for credit. S/U grading.

203D. Advanced Topics in Responsible Conduct in Chemical Research. (2) Seminar, two hours. Enforced requisite: course 203A or 203B or 203C. Cellular and molecular biology PhD students continue to learn how to conduct research in a field to reliably advance knowledge while maintaining ethical principles. Designed to be taken in fourth or fifth year of PhD work where students would have already been exposed to many challenges of forming and reporting experiments 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 or in Graduate Biology Predoctoral Training. Research seminar presented by second- and third-year students. S/U grading.

CM205A. Introduction to Chemistry of Biology. (4) (Same as Pharmacology M205A.) Lecture, three hours; discussion, one hour. May be concurrently scheduled with course CM205B. Designed for research students in graduate programs as an introduction to the chemical biology, utility of synthesis in biochemical research, peptidomimetics, designed reagents for cellular imaging, natural product biosynthesis, protein engineering and directed evolution, cell biology of metal ions, imaging metal ions in cells, cell-containing drugs. Concurrently scheduled with course C105. Letter grading.

M205B. 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 with interests in chemical and postdoctoral biology on chemistry/biology interface (CBI). S/U grading.

206. Chemistry of Biology Seminar. (2) Seminar, three hours. Limited to students supported by UCLA programs in Chemistry/Biology Interface Predoctoral Training. Current research topics at interface of chemistry and biology may be repeated for credit. S/U grading.

C207. Organometallic Chemistry, (4) (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, group, metals, metalloids, and transition metals, including olefin complexes and metal carbonyls; applications in catalysis and organic synthesis. Concurrently scheduled with course C219K. S/U grading.

C208. Mass Spectrometry for Chemists and Biochemists. (2) Lecture, one hour; laboratory, four hours. Requisite: course 153A. Introduction to principles of mass spectrometry. Topics include EI, CI, ICPSMs, 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.


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 131 and of analytic mechanics equivalent to Physics 105A. Course C215A or Physics 115B with grade of C– or better is requisite to course C215B. Students entering course C215A are normally expected to take course C215B in following term. Designed for 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; state vectors and time dependent problems; atoms; spectroscopy; magnetic resonance; chemical bonding. May be concurrently scheduled with courses C115A-C115B. S/U or letter grading.

215D. 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 neutrons and electron diffraction; coherence effects. S/U or letter grading.

218. Chemistry Student Exit Seminar. (2) Seminar, two hours. Open to Seminars program 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) Seminar, three hours. Enrolled to chemistry graduate students. Discussion of recent progress in area of photon resolved spectroscopies, with focus on materials and biophysics applications. Literature discussion, discussion of recent results, safety procedures, and guest lectures. S/U grading.


221A-221Z. Advanced Topics in Physical Chemistry. (2 to 4 each) Lecture, two to four hours. Each course encompasses one recognized specialty in physical chemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.

C222. Mathematical Methods for Chemistry. (4) Lecture, four hours. Enforced requisites: Mathematics 31A, 31B, 32A, 32B. 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, energy, 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, nonelectrolyte and electrolyte solutions, colloids, and high polymers, gravitation. May be concurrently scheduled with courses C123A-C123B. S/U or letter grading.


C226A. Computational Methods for Chemists. (4) Lecture, four hours; laboratory, four hours. Preparation: programming experience in either BASIC, FORTRAN, C, C++, JAVA, or PASCAL. Requisites: courses 110A, 113A, Mathematics 33A. Theoretical, numerical, and software tools for computational new chemical applications, including simple force fields and resulting statistical mechanics for simple molecules, simple ab-initio methods for organic molecules and nanotubes, and classical dynamics and spectroscopy. Concurrently scheduled with course C126A. 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 a common goal of metabolic engineering and synthetic biology. Production of advanced biofuels involves engineering and constructing novel metabolic networks in cells. Such efforts require profound understanding of biochemistry, protein structure, and biologic regulations and are aided by tools in bioinformatics, systems biology, and molecular biology. Fundamentals of metabolic biochemistry, protein structure and function, and bioinformatics. Use of systems modeling for metabolic networks to design microorganisms for energy applications. Concurrently scheduled with course CM127. S/U or letter grading.

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, 90 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 110B, 113A, Physics 6C. Selected topics from principles of biological structure; structures of globular proteins and RNAs; structures of fibrous proteins, nucleic acids, and polysaccharides; harmonic analysis of macromolecular structures; principles of electron, neutron, and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction from electron micrographs, and model building. S/U or letter grading.

M230D. Structural Molecular Biology Laboratory. (2) (Same as Molecular Cell, and Developmental Biology M230D.) Laboratory, 10 hours. Corequisite: course M230B. Methods in structural molecular biology, including experiments utilizing single crystal X-ray diffraction, low angle X-ray diffraction, electron diffraction, optical diffraction, optical filtering, three-dimensional reconstruction from electron micrographs, and model building. S/U or letter grading.

235A. Seminar in Research in Organic Chemistry. (1 each) Seminar/group meeting, three hours. Requisite: research experience. Seminar in research conducted by graduate students, with faculty supervision. S/U grading.


C240. Biomaterials. (4) Lecture, three hours. Requisites: courses 30C, 110A. Basic physical, chemical, and biological principles in biomaterials and strategies for top-down and bottom-up fabrication of ordered biologically derived molecules, characterization and detection techniques, and the use of 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.

C243A. 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; reactivity, stereochemistry, isotope effects. Molecular orbital theory; photochemistry; 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 organic reactions. Special emphasis on regents useful in asymmetric induction and stereoselective synthesis of structurally complex target molecules. S/U or letter grading.

244B. Strategy and Design in Organic Synthesis. (4) Lecture, three hours; discussion, one hour. Requisite: course C243A. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be repeated for credit. S/U or letter grading.

C245. Theoretical and Computational Organic Chemistry. (4) (Same as Biological Chemistry M255.) Lecture, two hours; discussion, one hour. Theory behind planning of syntheses involving organic substrates. Special emphasis on regents useful in asymmetric induction and stereoselective synthesis of structurally complex target molecules. S/U or letter grading.

247. Organic Colloquium. (2) Seminar, two hours. Seminars 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. Seminar on research conducted 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.

249A. Methods of Materials Chemistry: Synthesis, Characterization, Physical Properties, Applications, and Devices. (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 materials chemistry. How materials are synthesized and isolated and the importance of physical properties, as well as broad range of applications and behavior in devices. S/U grading.

249B. Methods of Chemical Synthesis: Organic/Inorganic/Organometallic. (2) 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 materials chemistry. How materials are synthesized and isolated and the importance of physical properties, as well as broad range of applications and behavior in devices. S/U grading.


257. Physical Chemistry of Biological Macromolecules. (4) Lecture, one hour; discussion, one hour; laboratory, four hours. Requisite: A Theory of hydrodynamic, thermodynamic, and optical techniques used to study structure and function of biological macromolecules. S/U or letter grading.

258. Advanced Topics in Biochemistry and Molecular Biology. (2) 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 153A. RNA polymerase structures and mechanisms; promoter recognition and transcription cycle; mechanisms of activation; transcriptional poised and elon-
gation 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. Concurrency scheduled with course CM160A. S/U or letter grading.

CM260A. Introduction to Bioinformatics. (4) Same as Bioinformatics M221, Computer Science CM221, and Human Genetics M260A. Lecture; four hours; discussion, two hours. Requisites: Courses CM260, CM280. Corequisites: Courses 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 100A, 101A, or Statistics 101C. 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 inventions new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrency scheduled with course CM160A. S/U or letter grading.

CM260B. Algorithms in Bioinformatics. (4) Same as Bioinformatics M222 and Computer Science CM222. Lecture; four hours; discussion, two hours. Requisites: Courses CM260, CM280, or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 100A, 101A, or Statistics 101C. Corequisite: Course CM260A. Designed for engineering students as well as students from biological sciences and medical school. Development and application of computational approaches to ask and answer biological questions, with focus on formulating interdisciplinary problems as computational tasks and then solving these problems using algorithmic techniques. Computational techniques include dynamic programming, greedy algorithms, graph search methods, and asymptotic analysis of algorithms. Concurrently scheduled with course CM160B. Letter grading.

260BL. Advanced Bioinformatics Computational Laboratory. (2) Laboratory, eight hours; two lectures and one discussion. 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 solving biological questions and preliminary understanding of how to communicate results of computational studies. Development of conceptual understanding of implementation of bioinformatics algorithms and foundation for how to do innovative work in these fields. Experience in observing and understanding computational components of algorithms in computing solutions. S/U or letter grading.

C261A. Plant Biochemistry. (4) Lecture; three hours; discussion, two hours. Requisites: courses 153C and 153L. Introduction to distinctive features of plant biochemistry. Topics include photosynthesis, plant cell wall metabolism, and secondary metabolism in relation to stress. Concurrently scheduled with course C161A. S/U or letter grading.

262. Biochemistry and Molecular Biology of Protein Translocation Systems. (3) Lecture; two hours; discussion, two hours. Requisites: courses 269A through 269D. Protein translocation into nucleus, mitochondrion, peroxisome, chloroplast, endoplasmic reticulum, and protein export in bacteria. Letter grading.

C263. Membrane Protein Structure and Function. (4) Lecture; two hours; discussion. Requisites: courses 153A, 153B, 153C, 153L, 154, 156. Detailed examination of how various membrane proteins work. Topics include lipid bilayer properties and how they affect membrane protein function and biology; membrane protein biogenesis; principles of transport across membranes; how channels, transporters, and receptors work at atomic level. Emphasis on reading and analyzing original research papers. Concurrently scheduled with course C163B. S/U or letter grading.

C264. Free Radicals in Biology and Medicine. (2 to 4) Lecture; three hours. Enforced requisites: courses 153A and either 153B or 153C, with grades of C– or better. Biochemical reactivity of dioxygen, its role in mitochondrial metabolism, neurodegenerative disease and cancer, mechanism and biological significance of radical reactions, how they are harnessed to achieve enzyme catalysis, and how free radicals contribute to or regulate essential biological processes. These same reactions “run amok” under certain conditions of stress and disease, and many can contribute to wide variety of diseases, including neurodegenerative diseases (e.g., Huntington’s, Parkinson’s, Alzheimer’s, and ALS). Cross-list: course 264, Life Sciences 264. Concurrently scheduled with course C164. S/U or letter grading.

C265. Metabolic Control by Protein Modification. (4) Lecture; three hours; discussion, one hour. Requisites: courses 153A, 153B, 153C. Biochemical basis of controlling metabolic pathways by posttranslational modification of proteins, including phosphorylation and methylation reactions. Concurrently scheduled with course C165. Letter grading.


267. Nanoscience and Chemistry. (4) Lecture, four hours. Enforced requisites: courses 110A, 113A, 171, 172. Designed for graduate and graduate-level students. Why nanoscience is important and interesting and critical role of chemistry in nanoscience. Chemistry and physics of variety of synthetic inorganic nanostructures, including metallic nanostructures (nanocrystals, nanorods, nanowires), semiconducting nanostructures (quantum dots/rods, nanowires, plates), and carbon nanofibers (fullerene, nanotubes, graphene). Discussion of synthetic approaches, structures, and physical properties, as well as potential technological opportunities of each. Letter grading.

268. Biochemistry Research Seminar. (2) Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students on topics of current biochemical research interest. May be repeated for credit. S/U or letter grading.


271. Advanced Topics in Inorganic Chemistry. (2 to 4) Lecture, two to four hours. Each offering encompasses one recognized specialty in inorganic chemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.


274. Inorganic and Metallorganic Laboratory Methods. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 300CL and 171, with grades of C– or better. Synthesis of inorganic compounds, including air-sensitive materials; Schlenck techniques; chromatographic and ion exchange methods; spectroscopic and spectrophotometric and literature applications. Concurrently scheduled with course C174. S/U or letter grading.

275. Inorganic Reaction Mechanisms. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A, 110B, 113A, 113B, 172, and 171, with grades of C– or better. Study 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 C175. S/U or letter grading.

276A. 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. Group theoretical methods; molecular orbital theory; ligand-field theory; electronic spectroscopy; vibrational spectroscopy; infrared spectroscopy; magnetic resonance and nuclear magnetic resonance; crystal field theory; magnetic susceptibility. Letter grading.

276B. Physical Methods in Inorganic Chemistry. (4) Lecture, three hours. Requisite: course C276A. Theory and applications of spectroscopic techniques, including magnetic resonance and vibrational and solid state science methods for inorganic compounds and materials. S/U or letter grading.

277. Crystal Structure Analysis. (4) Lecture, three hours. Theory and practice of modern crystallography, with emphasis on practical experience in structure determination. Topics include crystallographic symmetry, scattering theory, data collection, Fourier
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Scope and Objectives
The mission of the UCLA César E. Chávez Department of Chicana and Chicano Studies is to train a new generation of scholars to research and analyze the life, history, and culture of Mexican-origin people within the U.S., as well as of other Latina/Latino and indigenous populations in the Americas.

Addressing local, national, and transnational contexts, the Chicana and Chicano Studies curriculum at UCLA explores race, class, gender, and sexuality paradigms as they have shaped the history of the field; as well as new directions in the study of Chicanas/Chicanos and Latinas/Latinos, including border and transnational studies; expressive arts; history, literature, and language of Americas; and labor, law, and policy studies.

Departmental faculty members, situated in one of the most diverse cities in the world, utilize Los Angeles as a laboratory for studying the social transformations taking place in California, the Southwest, and the U.S. The department provides students with the interdisciplinary research tools necessary to advance knowledge in the field, provide academic leadership, and serve community needs with academic resources.

Undergraduate Study
The Chicana and Chicano Studies Department offers a designated capstone program for undergraduate majors. Students have options for completing a senior honors thesis, individual research, or senior project under the direction of a faculty member. Alternatively, students may elect to complete an upper-division course that includes additional coursework culminating in completion of a capstone paper or creative project. Through their capstone work, students are expected to demonstrate working knowledge of the major findings and methods of the disciplines from which they have drawn their Chicana and Chicano studies coursework, show their capacities for conceiving and executing a research or creative project on a self-selected topic as well as identifying and evaluating relevant documentation pertaining to that project, demonstrate appropriate levels of scholarly discourse on their selected topic, and develop greater capacity to be lifelong service to the Chicana/Chicana and Latino community and to global society in the tradition of César Chávez and scholar activist exemplars.
Chicana and Chicano Studies BA Capstone Program

The BA program in Chicana and Chicano Studies is committed to the practice of different forms of scholarship and pedagogy and to the promotion of critical thinking about such issues as gender, sexuality, social action, language, race, ethnicity, class, assimilation/acculturation paradigms, and indigenous traditions. The literary and visual arts often function as vehicles for social change and creative empowerment, and so they constitute one focus of the curriculum, that aims to strike a balance among the social sciences, humanities, arts, and the professions. The major prepares students for graduate education in academic and professional fields and for a variety of positions that involve community and social service in the U.S. and abroad.

Learning Outcomes
The Chicana and Chicano Studies major has the following learning outcomes:

- Demonstrated skills and expertise, including research, analysis, and writing
- Demonstrated familiarity and competence in a range of interdisciplinary methodologies and approaches
- Demonstrated ability to identify and analyze appropriate primary and secondary sources, material evidence, and other primary documents
- Demonstrated mastery and integration of knowledge and learned abilities
- Demonstrated ability to use knowledge gained in classroom to conceive and execute projects
- Demonstrated broad knowledge of fundamentals acquired through coursework, as informed by race, class, gender, and sexuality paradigms
- Conception and execution of an original research project that identifies and engages with a topic relevant to the student’s area of concentration
- Presentation of work to peers for discussion and critique

Preparation for the Major

Required: Chicana and Chicano Studies 10A, 10B, Spanish 5 or equivalent.

Transfer Students
Transfer applicants to the Chicana and Chicano Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one interdisciplinary Chicana/Chicano history and culture course, one interdisciplinary Chicana/Chicano social structure and contemporary conditions course, and five quarter terms of Spanish.

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

The Major

Required: A total of 11 upper-division courses, including Chicana and Chicano Studies 101; one service learning course from 100SL or M170SL or from the approved list available in the department office each term; two related study courses from the approved list of courses outside the department (related study includes courses that provide a comparative perspective to Chicana and Chicano studies and/or a contextualization of Chicana and Chicano communities in the world); one advanced seminar course from 191 or another course by petition to the department chair; and a concentration of four courses in one area listed below and two courses in a second area:

- Border and Transnational Studies: Chicana and Chicano Studies CM110, 120, M124, M125, M126, M132, 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 thesis courses must be approved in writing by the department chair.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Honors Program

The Chicana and Chicano Studies honors program provides the opportunity for motivated and dedicated students to undertake a year-long research or creative project with the guidance and supervision of a faculty member. The program is open to all juniors and seniors who have a 3.5 grade-point average in the major, a cumulative GPA of 3.0 or better, and completed 90 or more total units, including Chicana and Chicano Studies 10A, 10B, 101, and one course from 89, 89HC, 189, or 189HC.

The application for admission must be submitted in spring quarter of the year prior to admission to the program, with the advice and consent of a faculty sponsor. The proposal, research, data collection, analysis, and writing of the thesis (or the creative equivalent to this process) take place in Chicana and Chicano Studies 198A, 198B, and 198C, which may not be applied toward other major requirements. An honors thesis of at least 30 pages or a significant creative project is required.

Students who are currently undertaking the optional multidisciplinary senior thesis and who are eligible for the honors program may opt to switch to the honors program (provided it does not delay their progress toward the degree) with the approval of the department.

Optional Multidisciplinary Senior Thesis

Chicana and Chicano Studies majors have the option during their senior year to enroll in two 199 courses with the intention of producing an undergraduate thesis. The first term includes thesis conceptualization and formulation, along with preliminary data collection for the thesis. The second term entails completion of the data collection, analysis of the data, and writing of the thesis. Enrollment in the two 199 courses is with the advice and consent of a faculty member.

Chicana and Chicano Studies Minor

The Chicana and Chicano Studies minor complements study in another traditional field. Students participating in the minor are required to complete both a departmental major in another discipline and the Chicana and Chicano Studies minor.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units, and file a petition with the student adviser in 7351 Bunche Hall.

Required Lower-Division Courses (10 units): Chicana and Chicano Studies 10A, 10B.

Required Upper-Division Courses (20 units minimum): Chicana and Chicano Studies 101 and four elective courses (20 units minimum) selected from the approved list (available in the department office each term).

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

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

Graduate Degrees

The César E. Chávez Department of Chicana and Chicano Studies offers Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Chicana and Chicano Studies.
Chicana and Chicano Studies

Lower-Division Courses

M5A-MSB-M5C. Elementary Nahuahtl. (4-4-4) (Same as Indigenous Languages of the Americas M5A-MSB-M5C and International and Area Studies M5A-MSB-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 Nahuahtl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

10A. Introduction to Chicana/Chicano Studies: History and Culture. (5) Lecture, three hours; discussion, one hour. Interdisciplinary survey of diverse historical experiences, cultural factors, and ethnic/racial paradigms, including indigeneity, 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 materialities of Chicanas/Chicanos, including colonialism, race, labor, immigration, poverty, assimilation, and patriarchy. Emphasis on critical reading and writing skills. Letter grading.


M18. Leadership and Student-Initiated Retention. (2) Seminar, one hour. Discussion of and critical thinking about topics 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 assignments designed to introduce students to current research in Chicana/Chicano studies. Culminating project may be required. May not be applied toward departmental major 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.

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 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.

Upper-Division Courses

100SL. 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, labor union, or service-oriented nonprofit organization. Study of social organizations play in improvement and change of Chicana/Chicano communities. Students meet on regular basis with instructor and provide periodic reports of their experience. Letter grading.


M102. Mexican Americans and Schools. (4) (Same as Education M102.) Seminar, two hours; discussion, two hours. Theoretical and empirical overview of Chicana/Chicana educational issues in U.S., with special emphasis on issues of race, gender, class, and immigrant status on Chicana/Chicana educational attainment and achievement. Examination of how historical, social, political, and economic forces impact Chicana/Chicana educational experience. P/NP or letter grading.

M103C. Origins and Evolution of Chicano Theater. (5) (Same as Theater M103C.) Lecture, three hours. Designed for three blocks; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Survey of Chicano literature from Mexican Revolution to el Movimiento, 1920 to Present. (Same as English M105A.) Lecture, four hours; discussion, one hour (when scheduled). Requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature since 1970s, with particular emphasis on how queer and feminist activism as well as Chicano studies has expanded influence of Chicano/a aesthetics. Oral, written, and graphic fiction, poetry, and drama by writers including John Rechy, Gloria Anzaldúa, Los Bros Hernández, Ana Castillo, and Dago-bría. Guide explores the history of feminist and Chicana studies, Reagen generation, immigration debates, and emerging Latina/Latino majorities. P/NP or letter grading.

M105D. Introduction to Latina/Latino Literature. (5) (Same as English M105D.) Lecture, four hours; discussion, one hour (when scheduled). Requisite: English Composition 3 or 3H. Survey of U.S. Latina/Latino literature and introduction to its major critical trends, with emphasis on groups of Caribbean, Mexican, South American, and Central American origin. Representative works read in relation to such topics as production of identity, U.S. cultural spheres, struggle for self-determination, experiences of exile and migration, border zones, enclaves and language, and mestizaje and its impact on cultural production in the U.S. Letter grading.

M105E. Studies in Chicana and/or Latina/Latina Literature. (5) (Same as English 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 literature. Topics include border, immigration, revolution, language, gender, sexuality, and diaspora, among others. May be repeated for credit with topic or instructor change. P/NP or letter grading.

105F. Gender, Fiction, and Social Change. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of essays, novels, short narratives, and plays written by Chicanas/Latinas. Required readings represent writers with focus on themes of identity, ethnicity, gender, and cross-border experiences. Emphasis on social reading and analysis of works, searching for strengths and flaws, to point out unique contribution of each work to greater body of U.S. literature. P/NP or letter grading.

M105SL. Seminar: Chicana and/or Latina/Latina Literature—Service Learning. (5) (Same as English M105SL.) Seminar, three or four hours; field placement, three or four hours. Enforced requisite: English Composition 3 or 3H. Specialized studies in Chicana and/or Latina/Latina literature. In-depth study of various topics related to Chicano/Chicana/Latina and Chicano/Latina/Latina issues. (Same as African American Studies M18, 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 M118. Exploration of Chicana/Latina/Latina identity, ethnicity, gender, and cross-border experiences. Enforced requisite: English Composition 3 or 3H. Chicana/Chicana and/or Latina/Latina studies. Letter grading.

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Latino communities in Southern California, including Chicanas/Chicanos visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicanas/Chicanos journalism; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work with agency involved with Chicanas/Chicanos and/or Latin/Latino community and selected by instructor. P/NP or letter grading.

CM106. Health in Chicanos/Latino Population. (4) (Same as Public Health M106.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Examination of Chicanos/Latino health status through life expectation, mortality, morbidity, and health status. Relationship of Chicano culture to Nahuatl language and worldview related to this philosophical roots and evolution of traditional civilization. P/NP or letter grading.


C107. Latina/Latino Families in U.S. (4) Lecture, four hours; discussion, one hour (when scheduled). Study of Latina/Latino families’ interactions and related factors. Service learning component utilizing faculty from variety of fields to address issues of diversity. Letter grading.

C108A. Music of Latin America: Mexico, Central America, and Caribbean Isles. (5) (Same as Ethnomusicology M108A) Lecture, four hours; discussion, one hour. Historical, cultural, and political aspects of音乐相关 classical traditions of Mexican, Central American, and Caribbean music, and influence on the development of contemporary music. P/NP or letter grading.


CM110. Chicana Feminism. (4) (Same as Gender Studies CM132A.) Lecture, four hours. Enforced requirement for 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 inequalities. Comparison of Chicana both within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World communities. Concurrently scheduled with course CM214. P/NP or letter grading.

111. Chicano/Latino Race and Chicano/Latino Intellec- tual 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/poitical 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 M117.) Lectures/screenings, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicano cinema as political, socio- economic, cultural, and aesthetic practice. Examination of key representations of Mexican Americans 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 1906 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. Consideration of how Chicano experi- mental work 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 multicult- ural metropolis of Los Angeles, with focus on various musical networks and specific experiences of Chi- cano/Latino, African American, American Indian, Asian, rock culture, tradition, and commercial music industry. P/NP or letter grading.

M116. Chicano/Latino Music in U.S. (5) (Same as Ethnomusicology M116.) Lecture, four hours; discus- sion, one hour. Historical and analytical examination of musical expression of various groups who have inhab- ited present geographical boundaries of U.S. P/NP or letter grading.

117. Chicana/Chicana Images in Mexican Film and Literature. (4) Lecture, four hours. Preparation: ade- quate understanding of Spanish-language films that deal with Chicana/Chicana experience. Like its U.S. counterpart, Mexican cinematic discourse portrayal of Chicanas/Chi- canos has been plagued by use of stereotypes that limit visual and verbal representation of Chicana. Exploration 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, and Asian American Studies M168.) Lecture, four hours. Exploration of issues in outreach and re- tention of students in higher 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 Labor and Workplace Studies M123.) 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 Latina/Latino 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 issues raised within Latino communities in urban poverty, with particular focus on Mexican and Central American immigrant populations in Los Angeles. Exploration of major theoretical models that explain urban poverty and application of them in comparative context while exploring differences be- tween Mexican and Central American immigrants. Social conditions and forces that help us understand lives of poor people of color 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 Latina/Latino Communi- ties: Preserving and Strengthening Community Assets. (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 communities from developing to their potential. How to and how to preserve community resources in urban areas. Neighborhood organizing. Research entails historical analysis, reviews, interviews, electronic asset mapping, web-based data pro- cessing and analysis, oral and written reports, and community-based research and group exercises.

123. Applied Research Methods in Latin Commu- nities. (4) Lecture, three hours. Through combination of lectures, key readings, and several experiments, intro- duction 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. P/NP or letter grading.

M124. Latina Immigration History and Politics. (4) (Same as Honors Collegium M143.) Lecture, four hours. Overview of Mexican, Central American, and Latin/Latina to U.S., examining social, political, and economic conditions that led to different 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 between Mexico and U.S., using political economy ap- proach to study of asymmetrical integration between adjacent areas in North and South America and developing coun- tries. P/NP or letter grading.


129. Field Research Methods in Labor and Work- place Studies. (5) Lecture, four hours; field studies, two hours. Designed for seniors. Discussion of roles of union and nonunion worker organizations in society and in improvement of quality of life for 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 M165, and Labor and Workplace Studies M167.) Seminar, three hours. Development of
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 responses envisioned by transnational organizing. Concurrently scheduled with course C215. P/NP or letter grading.

M148. Politics of Struggle: Race, Solidarity, and Resistance. (4) 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 other groups. Specific analysis of university admissions, hiring and contracting practices, and state initiatives. Letter grading.

150. Affirmative Action: History and Politics. (4) Lecture, four hours; discussion, one hour (when scheduled). Historical examination of political action and programs conceived and implemented. Review of impact on Chicanas/Chicanos, Latinos/Latinas, and other communities. Specific analysis of university admissions, hiring and contracting practices, and state initiatives. Letter grading.


152. Disposable People: U.S. Deportation and Repatriation Campaigns. (4) Seminar, four hours. Examination of U.S. deportation campaigns targeted at Mexican, Central American, and other Latin American workers, Mexican American citizens. Addresses various periods of large-scale, highly-organized deportation and repatriation efforts including Great Depression in 1930s, Operation Wetback in 1950s, Central American Repatriation, Desert Storm, DREAMer, Temporary Protected Status (TPS), P/NP or letter grading.

153A. Central Americans in U.S. (4) Formerly numbered 153.) Lecture, four hours. Interdisciplinary survey of social, political, cultural, and social activities of Central American immigrants and their children in U.S. Introduction to several contemporary experiences and issues in U.S. Central American communities. With focus mostly on Guatemalan, Honduran, and Salvadoran immigrants, exploration of social structures that constrain individuals, as well as strategies and behaviors of immigrants and their communities have taken to establish their presence and incorporate into U.S. society. How Central American identity has been constructed and how this identity is reinforced, including race, gender, and legal status. P/NP or letter grading.

153B. Central American Racial Constructions. (4) Lecture, four hours. Interdisciplinary, transhistorical, and transnational exploration of indigeneity, indigeneity, afro-Latino, northern Mexican, diaspora, and other racialized and gendered migration processes that are transnational, transcultural, and as part of U.S. Central American, Latino/a, and migrant experience within, across, and among cultural groups. P/NP or letter grading.

153D. U.S. Central American Narratives. (4) Lecture, four hours. Examination of historical narratives and genres that emerged or were actively deployed from Central America beginning with civil wars of late 1960s into late 1990s. Texts are read beyond confines of nation to examine genre and politics. As part of stories of immigrants, these narratives contribute to making of U.S. Central American diasporas, and these communities making home in some other place than the (re-)imagined homeland. P/NP or letter grading.


155A. Latinos in U.S. (4) Formerly numbered M155.) (Same as M155.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of history and social conditions of Latinos in Los Angeles as well as nationally, with particular emphasis on the location in larger social structure and on comparisons with other minority groups. Topics include migration, family, education, and work issues, race or letter grading.

155B. U.S. Hispanic Literature (Formerly numbered 155B.) (Same as Political Science M181B) Lecture, four hours; discussion, one hour (when scheduled). Examination of history and contemporary role of Latinas/os in U.S. political system. Topics include historical analysis of Latino immigration and migration; civil rights movement; increases in citizenship, registration, and voting in 1980s and 1990s; new wave of anti-immigrant legislation; Anti-Immigration and Reparations for Alien Minorors (DREAM) Act and subsequent DREAMer movement; and responses by Latinos today, with discussion of role of Latino vote in recent presidential elections. P/NP or letter grading.

156A. Immigration Rights, Labor, and Higher Education. (4) (Same as American Studies M166A and Labor and Workplace Studies M166A) Lecture, three hours; discussion, one hour. New immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and examination of development of coalition efforts between labor movement and higher education. Anti-immigrant legislation and its political and cultural consequences. Special focus on issue of immigration 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 spoken word about immigrant experience, and work to collectively develop student publication on immigrant students in higher education. P/NP or letter grading.

156B. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as American Studies M166B and Labor and Workplace Studies M166B) Seminar, three hours; discussion, one half hour. Requisite: course M156A. Expansion of research conducted by students in course M156A involving oral histories, research on immigration rights, higher education, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.

156C. Research on Immigrant Students and Higher Education. (4) (Same as Asian American and Pacific Islander Studies M166C.) Seminar, three hours. Enforced requisites: courses M156A, M156B. Expansion of research conducted by students in courses M156A and M156B involving oral histories, research on immigration rights, higher education, and evaluation of legislation and legal issues impacting undocumented students. Designed around class project, where students work on showcasing all material collected throughout year. Letter grading.

157. Chicano Movement and Its Political Legacies. (4) Lecture, four hours. Collective examination of Chicano Movement of 1960s and 1970s and analysis of its political legacies. Grounded in historiographic inquiry and social movement theory, investigation of microhistories of diverse social movements, including students, workers, artists, youth, community activists, and women. Exploration of myriad issues and struggles that compelled Chicanas/Chicanos to resist such as land and labor conflicts, anti-war movements, community autonomy, police brutality, political inclusion, cultural recovery, racism, sexism, and class exploitation. Investigation of diverse identities, intersectionality, politics of Chicano Movement through analysis of Chicana/Chicano motivations for organizing, modes, strategies, innovations, challenges, and articulation of new political subjectivities. P/NP or letter grading.

158. Chicana Historiography. (4) (Same as Gender Studies M151 and History M151D.) Lecture, four hours. Examination of Chicana historiography, looking closely at how practice of writing of history was created by Chicana intellectuals. Analysis of feminist approaches to study of history, revisiting of specific historical periods and moments such as Spanish Conquest, Mexican American Conquest, Mexican Revolution, and Chicano Movement to excavate untold stories about women’s participation in and contribution to making of Chica and Chicano history. 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 lecture on historical development of Mexican (Chicano) community and period 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.

159B. History of Chicano Peoples. (4) (Same as History M151B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey course lecture on historical development of Mexican (Chicano) community and period 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 political 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 and 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, including history and current languages, types and social functions of Chicano speech (pachuco, caño, Spanglish), sexism language, and multilingualism and monolingualism and (2) major social issues associated with language use by Chicanos 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 Latino immigration. Emphasis on oral history and testimonio methods. P/NP or letter grading.

165. Latinos and Latinos in Public Education. (4) Lecture, discussion, four hours. In-depth evaluation of language and literacy pertinent to educational systems, including language inequity, literacy, testing, and socialization, as well as institutional ideologies. Letter grading.

166. 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 the 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) Lecture, laboratory, seminar, one hour; 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 multicultural (visual, graphic, spoken, audio, and text) images dispersed 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 121M. 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 the language, literacy, and culture of Chicano/Latino/Latina communities from a global perspective, explored both as historical result and as key future actor in localized dynamics of transnationalization in California’s relation to world. Analysis of Chicana/o literature in California as both highly linked node and localized microcosm of dynamics of globalization that is both affected by and as well as influences course of alternative scenarios of globalization. Designed to help students develop critical political economy analysis of interplay between globalization and localized transnational dynamics that together are giving meaning to and constructing new social identities and strategies for struggle throughout world. P/NP or letter grading.

C177. Latino Social Policy. (4) (Formerly numbered 177T) Lecture, three hours; discussion, one hour (when scheduled). Examination of social welfare of Latinos in U.S. and policy questions about schooling of Chicanas and Chicanos in U.S. through assessment and critical analysis of social policy issues affecting them. Survey of social, economic, cultural, and political circumstances affecting ability of Latinos to access public benefits and human services. Concurrently scheduled with course C27T. Letter grading.


C182. Understanding Whiteness in American History and Culture. (4) (Same as History M151C) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History, 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. Concurrently scheduled with course C256. Letter grading.

M183. History of Los Angeles. (4) (Same as History M173) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, economic, cultural, and political development of Los Angeles and its environs from time of its founding to current demographic changes. Emphasis on diverse peoples and changing physical environment, various interpretative cities of Los Angeles’ place among American urban centers. P/NP or letter grading.

184. History of U.S./Mexican Borderlands. (4) Lecture, four hours. Survey of historic and geographic diversity of Chicana/Chicana identity and culture, with
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 M185 and World Arts and Cultures M126L) Lecture, four hours. Recommended corequisite: course M186A, M186B, or M186C. Examination of public monuments in U.S. as basis for cultural interpretations of national and 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 and what different ethnic populations use public space differently. P/NP 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 through 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.

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) Course M186AL, M186BL, or M186CL when appropriate. Focus is internship 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 research, design, and produce large-scale projects or exhibits. Students are placed in community setting. P/NP or letter grading. M186AL. Beginning. Laboratory, four hours. Corequisite: course M186A; M186BL. Intermediate. 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 for placement in community. Students research, design, and work with community participants. Continuation of project through states of production to full scale and community approval. P/NP or letter grading.

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, or 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 of more advanced independent projects. P/NP or letter grading.


188. Special Courses in Chicana and Chicano Studies. (4) Seminar, three hours. Some sections may require students to attend spon- sored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward other electives. 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 credits. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Chicana and Chicano Studies. (4) Seminar, one hour. Designed as a one-on-one setting for students undertaking supervised tutorial research in seminar setting with one or more faculty members to present reports, discuss research methodology, share feedback, and give critical reviews of each other's work. Culminates in public summit of Chicana/Chicano student research at which students expected to present polished position papers on their research. May be repeated for credit. P/NP grading.

191. Variable Topics Research Seminars: Chicana and Chicano Studies. (4) Seminar, three hours. Limited to juniors/seniors. Research seminar organized around readings and engaged discussion of critical topic of research interest in field. Exploration of issue, its theoretical implication for field, and practical implications for communities. Final research project required. May be repeated for credit. P/NP or letter grading.

192A. Undergraduate Practicum in Chicana and Chicano Studies. (4) Seminar, four hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students who assist in preparation of materials and/or development of innovative programs or courses of study under guidance of faculty members in small group settings or one-on-one setting. May not be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP grading.

193. Readings/Speaker Series Seminars: Chicana and Chicano Studies. (1) Seminar, one hour. Limited to undergraduate Colloquia Series students. Reading of journal articles associated with speaker topics to enliven postcolloquia discussions. May not be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP or letter grading.


199. Directed Research or Senior Project in Chicana and Chicano Studies. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Theoretical Paradigms in Chicana and Chicano Studies. (4) Formerly numbered 201.) Seminar, three hours. Limited to graduate students. Examination of several approaches and important theoretical frameworks in field of Chicana and Chicano studies. Exploration of changes that have taken place around four key theoretical areas—coloniality, nationalism, inequality studies, and gender and sexualities. S/U or letter grading.
201. Activist Scholarship and Intersectional Methodologies Seminar. (4) Seminar, three hours. Limited to graduate students. Exploration of critical epistemologies, or schools of thought, that employ intersectional methodologies as basis for social action research—Chicana/Chicano cultural studies, Chicana feminism, queer studies, and critical legal studies. S/U or letter grading.

202. Qualitative Methods in Study of Chicanas/ Chicanos and Latinas/Latinos. (4) Seminar, three hours. Limited to graduate students. Methods course that takes students through entire research cycle. Students required to collectively develop interesting, conduct (quantitative and qualitative) research, analyze original data, and write final papers that contextualize findings within existing social scientific literature. To answer research questions, students select from theoretical frameworks discussed in readings. S/U or letter grading.

207. Racial Geographies. (4) Seminar, three hours. Interdisciplinary examination of spatial turn in social sciences and humanities. 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, geographic approaches to racial formation, and anti-racism spatial advocacy. Study foregrounds intersections with Chicana and Chicano studies and models of relational racialization. S/U or letter grading.

208. Research Design and Methods in Chicana and Chicano Studies. (4) Seminar, four hours. Research design and methods in Xicana studies, including critical historical review of prior research designs and methods leading to need for Chicana@ studies. Survey of theoretical research designs, data collection methods, data analysis methods, and reporting in quantitative, qualitative, and mixed methods research in Chicana/Chicana studies. S/U or letter grading.

209. Service Learning: Theory and Praxis. (4) Seminar, four hours. To learn about the culture and context of service learning, and to focus on the role of the instructor in shaping these experiences. Discussion of roles and responsibilities of students while learning to effectively use social media. S/U or letter grading.

210. Queer of Color Genealogies. (4) Seminar, four hours. Focus on the genealogies of queer and trans* communities through alternative archives of desire, love, affect, memory, performance, and politics. Reading about queer theory and practices, with special focus on oral history, digital storytelling, and forms of social documentation methodologies. S/U or letter grading.


212. Latina/Latino Families in U.S. (4) Lecture, four hours. Lecture and discussion, four hours (when scheduled). Study of how intersections of race, class, and gender shape experiences of Latina/Latina families in U.S. society and how these intersections also help shape identities of families with Mexican roots. Study of family, race, class, and gender as sociological concepts. Readings about family experiences of Mexican and Central American groups in U.S., with special emphasis on Chicana/Latina culture and practice of Chicana/Latina families. S/U or letter grading.


214. Chicana Feminism, (4) (Same as Gender Studies F214) Seminar, four hours. Enforced requisites: course 10A or Gender Studies 10. Examination of theories and practices of women who identify as Chicana feminist. Analysis of writings of Chicanas who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas both within Chicana/Chicana community and dominant society. Attention to Anglo-American and Third World women. Corrency scheduled with course CM110. S/U or letter grading.

C215. Transnational Women's Organizing in America. (4) Lecture, four hours. Feminist theories of transnational organizing. Examination of gender and race in transnational spaces. Historical and contemporary globalization and essential to economic and political struggles encompassed in transnational power relations. Exploration of how questions of race and gender influence global economies, 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 for the organization 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 post-colonial cultural and social, and political responses envisioned through transnational organizing. Concurrently scheduled with course CM147. Letter grading.

232. Aesthetics of Place in Chicana/Chicano Expansive Culture. (4) Seminar, three hours. Examination of several place-based aesthetic traditions, including indigenous, Santería, diasporic, and Aztlán aesthetics, in Chicana/Chicana art, film, performance, and literature. Special focus on place as site of identity, history/memory, and creative production. S/U or letter grading.

233. Community Cultural Development in Public Art: From Neighborhood to Global. (4) Seminar, three hours; laboratory, one hour. Designed for graduate students. Artistic approaches to transformations of local and global communities through aesthetic practices in visual and nonvisual performance, music, and dance that include participatory audience inclusion and foster civic dialogue and community advocacy and activism. Issues of cultural democracy based in cultural retention and affirmation. Case studies of artist projects in community cultural development provide contemporary examples of evolving field of work and basis for critical analysis. S/U or letter grading.

234. New Social Media and Activist Art. (4) Studio, four hours. Limited to graduate students. Hands-on learning and production experience as essential to full understanding of modern media. Promotion of pragmatic style of humanistic and social scientific scholarship that prepares students to think critically and productively about media form, content, and context while learning to effectively use social media. S/U or letter grading.

235. Bilingual Writing Workshop. (4) Seminar, four hours. Limited to graduate students. Writing sample required; access to course webpage mandatory; need not be bilingual to enroll. Technical instruction, analysis, and theoretical discussion of bilingual Chicana/Chicana and Latin@/Latina@ writing workshops. Peer critique of weekly writing assignments. Emphasis on narrative techniques such as characterization, plot, conflict, setting, point of view, and dialogue and magical realism as prevailing Chicana@/Chicano style. Some attention to process of manuscript preparation, public reading, and publication. Concurrently scheduled with course CM135. Letter grading.

M247. Chicano Literature. (4) (Same as Spanish M247.) Lecture, three hours. Study of major movements and authors of Mexican American literature. S/U or letter grading.

C251. Chicana and Latin American Women's Narrative. (4) Lecture, four hours. Focus on the reading and knowledge of Spanish (level 4). Analyses, comparisons, and discussion of narrative literary production of U.S. Chicana writers and their Latin American counterparts in English. Focus in particular on the multiple ways that Chicana and Chicano women who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas within the Chicana and Chicano community and dominant society. Attention to Anglo-American and Third World women. Concurrently scheduled with course CM141. Letter grading.

252. Cultural Representations in Americas. (4) Seminar, three hours. Focus on Chicana@ theory in its multiple and historical manifestations, beginning in 17th century with early proto-feminist work of Sor Juana Inés de la Cruz, Mexican nun/scholar/poet, known world over as first feminist of Americas. Exploration of Sor Juana’s feminist legacy in 20th-century Chicana@ and Chicano@ feminist theorists and scholars, such as Gloria Anzaldúa, Cherríe Moraga, and Dolores Huerta, Chicana@ and Chicano@ social practice that constructs discriminatory hierarchies. How to apply several of these theories in decolonization of one revered cultural icon, la Virgen de Guadalupe. S/U or letter grading.

254. Los Angeles: History, Space, and Culture. (4) Seminar, three hours. Focus on Los Angeles as birthplace of Chicana@/Chicano and Chicano@ culture and community in Southern California. Historiography of Latin@/Latino history, chronicles, written accounts, and oral history. Focus on how each group deals with gender, ethnic, and class issues. Concurrently scheduled with course CM141. Letter grading.

255. Mass Media Research Methods. (4) Seminar, three hours. Limited to graduate students. Surveillance of media in its multiple and historical manifestations, beginning in 17th century with early proto-feminist work of Sor Juana Inés de la Cruz, Mexican nun/scholar/poet, known world over as first feminist of Americas. Exploration of Sor Juana’s feminist legacy in 20th-century Chicana@ and Chicano@ feminist theorists and scholars, such as Gloria Anzaldúa, Cherríe Moraga, and Dolores Huerta, Chicana@ and Chicano@ social practice that constructs discriminatory hierarchies. How to apply several of these theories in decolonization of one revered cultural icon, la Virgen de Guadalupe. S/U or letter grading.


257. Laughter, Political Humor, and Social Control. (4) Seminar, three hours. Limited to graduate students. Investigation of power of political humor, one social practice that constructs discriminatory hierar-
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Civic Engagement

Interdisciplinary Minor
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Robert Chao Romero, JD, PhD (Asian American Studies, Chicana and Chicano Studies)
Olga T. Yokoyama, PhD (Humanities)
David K. Yoo, PhD (Asian American Studies, History)

Scope and Objectives

The 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. Applicants 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 UCS 166 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/Psychology/Sociology M191DC and M195DC; in the winter quarter program, students enroll in History/Psychology/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 one-unit course in 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 and reflects on meaningful work off campus to reflect on assets, injustices, different racial/ethnic groups. Engagement in meaningful work off campus to reflect on assets, injustices, and inequities that have shaped experiences of native or immigrant communities. Analysis of Los Angeles in which residents coexist and interact while managing diverse communities of readers and writers and formation of 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.

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.

99SL. 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.

101. Reflections on Alternative Spring Break. (2) Seminar, two hours. Limited to students who have participated in USAID 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 forming common agenda. Letter grading.

M110SL. Community-Based Studies of Popular Literature. (5) (Same as English M115SL.) Lecture, four hours; discussion, one hour (when scheduled); fieldwork, two hours. Enforced prerequisite: English M114SL. Seminar examines history and development of one or more genres of popular literature, with attention to contemporary communities of readers and writers and formation of...
civil society. Topics vary and may include children’s literature and childhood literacy, mass market fiction and book club culture, or science fiction and science policy. Service-learning component 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. (Same as Political Science M115SL) Lecture, three or four hours; discussion one hour (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, how these ideas have changed over time, and frameworks for thinking about citizenship in era of markets and globalization. P/NP or letter grading.

M122. Philanthropy as Civic Engagement. (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. (Seminar) Seminar, three hours; fieldwork, two hours. Junior or senior standing. Reading course that studies 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. (Same as Chicano and Chicano Studies M134SL) Lecture 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 and global city as site of buffer, settle, and incorporate immigrants in daily life. Focus on civil society to explore multiple forms of interventions and impacts that take place in multiple communities across Los Angeles basin. Service-learning partnerships focus on organizations addressing immigration concerns. Letter grading.

145. Conflict, Power, Inequality, and Change. (Lecture, four hours. Broad historic trend of systems in conflict states as redistribution of capitalism, including capitalism, urbanism, liberalization, and neoliberalism. Examination of modalities and theories of conflict and transformation, with emphasis on three primary forms of systems: conflict transformations, warfare, and reform. 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. (Seminar, three hours. Limited to students in UCLA Summer Social Innovation Research Program. Study of social innovation as theory of civic engagement, with particular emphasis on how social innovators have transformed way we address entrenched social issues. Study of elements of existing social innovation models and strategies for employing methods of social change on campus and in communities. Offered in summer only. Letter grading.

152. Exploring Social Change: Critical Analysis through Lens of CoCaCo Designing. (Lecture, four hours. Exploration of theories driving social change and how visions and agendas get organized toward common efforts. Analysis of organizing frameworks through fieldwork 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. (Seminar) 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. (Seminar) Seminar, three hours; fieldwork, two hours. Limited to juniors/seniors. Exploration of how nonprofit organizations use storytelling strategies to advance social justice. Offers opportunity to use research and writing skills in nonprofit and social service settings. Online media. Students collaborate with nonprofit organizations to complete research and communication projects. Special focus on how storytelling can empower communities and advance equity in diverse urban centers like Los Angeles. Letter grading.

M170SL. Food Studies and Food Justice in Los Angeles. (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. Focus on how 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 and Center for Community Learning. Letter grading.

M175SL. Addressing Social Determinants in Racial/Ethnic Minority Communities to Reduce and Prevent Health Disparities. (Seminar) Seminar, three hours; fieldwork, two 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 affected by housing, employment, exposure to 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 healthcare with little in way 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 sociological theories of literature in service-learning collaborative activities with community organizations. P/NP or letter grading.

180. Access to Justice: Hope and Reality. (Seminar, three hours. Limited to UCLA students who are members of Justice Corp. 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 premises underlie structure of U.S. legal system? Exploration of sociopolitical context for current legal system, including origins and current status of legal services and self-help movements, including role of JusticeCorps. These strategies designed to make promise of equal justice a reality or have their contrary, 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. (Seminar) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1 to 4) (Seminar, 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.

194. Capstone Research Seminar. (Seminar, two hours. Requisite: course 195CE. Required of students pursuing Civic Engagement minor. Integration of off-campus work with academic theories and concepts within field of civic engagement. Students report on their internship experiences and analyze relationship between their internship and issues of policy, ethics, systemic responses to community needs, or personal and intellectual transformations. Students identify one faculty mentor and develop proposal for required capstone research project. Letter grading.

194A. Astin Civic Engagement Research Seminar. (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. (Tutorial, one hour; fieldwork, eight hours. Limited to juniors or seniors in Astin Civic Engagement minor. Internship in supervised setting in corporate, governmental, or nonprofit setting, using knowledge base of civic engagement. Students submit weekly written assignments and participate in a list of civic issues related to meaningful work at internship site. Students expected to learn ways in which individuals and groups can organize to solve problems, analyze 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. (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. (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. (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 research 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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Ertugrul Taciroglu, PhD
John W. Wallace, PhD
William W-G. Yeh, PhD, NAE (Richard G. Newman AECOM Endowed Professor of Civil Engineering)

Professors Emeriti
Stanley B. Dong, PhD, PE
Lewis P. Felton, PhD
Michael E. Fourny, PhD, PE
Richard L. Perrine, PhD
Moshe F. Rubinstein, PhD
Lawrence G. Selna, PhD, SE
Keith D. Stolzenbach, PhD, PE
Mladen Vucetic, PhD

Associate Professors
Mekonnen Gebremichael, PhD
David Jassby, PhD
Shaly Mahendra, PhD
Gaurav Sant, PhD
Jian Zhang, PhD

Assistant Professors
Mathieu Bauchi, PhD
Henry V. Burton, PhD, SE
Timo W. Gallien, PhD
Sanjay K. Mohanty, PhD

Adjunct Professors
Robert Kayen, PhD, PE
Michael J. McGuire, PhD, PE, NAE
George Mylonakis, PhD, PE
Thomas A. Sabol, PhD, SE

Adjunct Associate Professors
Donald R. Kendall, PhD, PE
Issam Najm, PhD, PE

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 and mechanical 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, geological 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 Engineer-

ing 5SBL, 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 be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to departmental approval; consult with the undergraduate counselors before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

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

Graduate Degrees

The Department of Civil and Environmental Engineering offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Civil Engineering.

Civil and Environmental Engineering

Lower-Division Courses

1. Civil Engineering and infrastructure. (2) Lecture, two hours; outside study, four hours. Examples of infrastructure, its importance, and manner by which it is designed and constructed. Role of civil engineers in infrastructure development and preservation. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M20. Introduction to Computer Programming with MATLAB. (4) (Same as Mechanical and Aerospace Engineering M20.) Lecture, two hours; discussion, two hours; laboratory, two hours; outside study, six hours. Requisites: Mathematics 33A. Fundamentals of computer programming taught in context of MATLAB computing environment. Basic data types and control structures, input/output, functions, data visualization. MATLAB-based data structures. Development of efficient codes. Introduction to object-oriented programming. Examples and exercises from engineering, mathematics, and physical sciences. Letter grading.

58SL. 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 31A, 31B, 32B, Physics 1A. Newtonian mechanics, vector representation, and resultant forces and moments. Free-body diagrams and equilibrium, internal loads and equilibrium in trusses, frames, and shells, and russes, systems, distributed forces, determinant 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) Lecture, 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 project 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 topics and requirements vary. One individual course or project per student per semester. Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

102. Dynamics of Particles and Bodies. (2) Lecture, two hours; discussion, two hours; outside study, two hours. Requisites: course 91, Physics 1B. Introduction to fundamentals of dynamics of single particles, systems, and particles. 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 31A, 33B or Mechanical and Aerospace Engineering 82) (either may be taken concurrently). Introduction to numerical computing with specific applications in civil and environmental engineering problems. Topics include error and computer arithmetic, root finding, curve fitting, numerical integration and differentiation, solution of systems of linear and nonlinear equations, numerical solution of ordinary and partial differential equations. Letter grading.


110. Introduction to Probability and Statistics for Engineers. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 108. Introduction to fundamental concepts and applications of probability and statistics in civil engineering, with focus on how these concepts are used in experimental design and sampling, data analysis, risk and reliability analysis, and project design under uncertainty. Topics include probability concepts, random variables and analytical probability distributions, functions of random variables, estimating parameters from observational data, regression hypothesis testing, and Bayesian concepts. Letter grading.

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. Requisite: 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. Requisite: course 121. Analysis and design of earth dams, including seepage, piping, and slope stability analyses. Case study history studies involving landslide, settlement, and earth embankments, and design of repair methodologies for those problems. Within context of above technical problems, emphasis on preparation of report and engineering documents such as proposals, work acknowledgment, figures, plans, and reports. Letter grading.

125. Fundamentals of Earthquake Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 108. 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 seismic hazard analysis and code-based methods. Overview of seismic design regulation and California PE examination's seismic component. Code-based seismic design for new buildings using current International
135A. Elementary Structural Analysis. (4, 4, 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.

135B. Intermediate Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Analysis of statically determinate trusses, beams, and frames; deflections in elementary structures; virtual work; analysis of indeterminate structures using force method; introduction to displacement method and energy concepts. Letter grading.

142L. Reinforced Concrete Structural Laboratory. (4) Lecture, four hours; discussion, two hours; outside study, four hours. Requisites: courses 135B, 142. Design considerations used for reinforced concrete structures. Design of beams and slabs for flexure, shear, anchorage of reinforcements, and size of reinforcement. Structural analysis. Preparation of drawings and construction drawings. Letter grading.

145C. Introduction to Finite Element Methods. (4) (Excludes Mechanical and Aerospace Engineering M168.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 130 or Mechanical and Aerospace Engineering 156A or 166A. Introduction to 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.

131L. Structural Design and Testing Laboratory. (4) Lecture, four hours; discussion, two hours; outside study, five hours. Requisites: courses M20, 135A. Limited enrollment. Computer-aided optimum design, construction, instrumentation, and test of small-scale models of structural systems. Design, computer-based data collection and interpretation systems for comparison of experimental and theoretically predicted behavior. Letter grading.

C137. Elementary Structural Dynamics. (4) Formerly 137L. 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 C239. Letter grading.


150. 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, hydroelectric 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 flows in surface water and groundwater systems, including stormwater management systems, potable and recycled water distribution systems, wastewater collection systems, and constructed wetlands. Empirical and practical analysis codes including reading/interpreting professional drawings and documents, environmental impact reports, permitting, agency coordination, and engineering ethics. Project-based course includes the use of engineering economics, 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); laboratory, six hours. Recommended requisite: Mechanical and Aerospace Engineering 103. Water, air, and soil pollution: sources, transformations, effects, and processes for removal of contaminants. Water contaminants: cleaning up and treatment, waste disposal, air pollution, global environmental problems. Field trip. Letter grading.

154. Chemical Fate and Transport in Aquatic Envi- ronments. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 153. Fundamental physical, chemical, and biological principles governing movement and fate of chemicals in surface water and groundwater systems. Topics include physical transport in various aquatic environments, air-water exchange, acid-base equilibria, oxidation-reduction chemistry, chemical sorption and biodegradation, and use of qualitative and quantitative problems solved considering both reaction and transport of chemicals in environmental letter grading.

155. Unit Operations and Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 153. Biological, chemical, and physical methods used to modify water quality. Fundamentals of phenomena governing design of engineered systems for water and wastewater treatment systems. Field trip. Letter grading.

156A. Environmental Chemistry Laboratory. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course 154L (may be taken concurrently). Chemistry 20A, 20B. Basic laboratory techniques in analytical chemistry related to water and wastewater analysis. Selected experiments include gravimetric analysis, titrimetry, spectrophotometry, redox systems, pH and electrical conductivity, and chromatographic separations. Concepts to be applied to analysis of real water samples in course 156B. Letter grading.

156B. Environmental Chemistry Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: Chemistry 20A, 20B. Characterization and analysis of solids, gases, and water pollutants in both inorganic and organic constituents. Selected experiments include analysis of solids, nitrogen species, oxygen demand, and chloride residual, that are used in unit operations and processes experiments that include: sorption, redox system, slurry, gas stripping, coagulationflocculation, 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. Enforced requisite: course 155. 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 chemical analysis. 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 data for determination 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. Lecture grading.


M165. Environmental Nanotechnology: Implications and Applications. (4) (Same as Engineering 103). Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: Engineering 101. Introduction to potential implications of nanotechnology to environmental systems as well as potential application of nanotechnology in environmental protection. Technical contents include three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, reaction, and interaction of nanomaterials 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: course 165. Microbial cell and its metabolic capabilities, microbial genomics and its potentials, growth of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, probing of microbes, and health microbiology, pathogen control. Letter grading.

M166L. Environmental Microbiology and Biotechnology Laboratory. (1) (Same as Environmental Health Sciences M166L.) Lecture, two hours; laboratory, two hours. Corequisite: course M166. General laboratory practice within environmental microbiology, sampling of environmental samples, classical and modern techniques for examination of microbes from environmental samples, techniques for determination of microbial activity in environmental samples, laboratory setups for studying microbiology. 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, documentation, critical path method scheduling, labor management, quality management, estimating, sustainability, and cost controls. Letter grading.

180. Introduction to Transportation Engineering. (4) Lecture, four hours; fieldwork/lab, two hours; outside study, six hours. Designed for juniors/senior Civil Engineering students and Public Affairs graduate students. General characteristics of transportation systems, including streets and highways, rail, 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. Applications of traffic safety improvements, highway capacity analyses, signal design and timing, Intelligent Transportation Systems concepts, and traffic infrastructure and facilities. Discussion of building systems, including horizontal and vertical alignment. Letter grading.

200. Civil and Environmental Engineering Graduate Seminar. (2) Seminar, four hours; outside study, two hours. Various topics in civil and environmental engineering that may include earthquake engineering, environmental engineering, geotechnical engineering, hydrology and water resources engineering, materials engineering, structural engineering, and structural mechanics. May be repeated for credit. Letter grading.


206. Modeling and Simulation of Civil Engineering Materials. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 201, Chemistry 20A, 20B, Mathematics 31A, 31B, 32B, Physics 1A, 1B, 1C. Fundamental examination of modeling and numerical simulations for civil engineering materials, with focus on practical examples and applications so students can independently run simulations at scale relevant to targeted problems. Letter grading.


229. Slope Stability and Earth Retention Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 120, 121, 220. Basic concepts of stability of earth systems, 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, sheeting, piles, mechanically stabilized earth, soil nails, and anchored and braced excavation. Letter grading.

229A. 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, documentation, critical path method scheduling, labor management, quality management, estimating, sustainability, and cost controls. Letter grading.

230. Structure, Processing, and Properties of Civil Engineering Materials. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Discussion of properties of cement and concrete materials, including manufacture, production of concrete. Aspects of cement composition and basic chemical reactions, microstructure, properties of plastic and hardened concrete, chemical admixtures, and quality control and acceptance testing, Development and testing of fundamentals for complete understanding of overall response of all civil engineering materials. By end of term, successful utilization of fundamental materials science concepts to understand, explain, analyze, and describe engineering performance of civil engineering materials. Concurrently scheduled with course C104. 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. Requisites: 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 techniques such as instability, bifurcation, nonlinearity, and nonuniqueness of solutions. 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 techniques 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 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 those processes, including erosion 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 equations; linear constitutive relations; plane strain problems; solution methods for linear equations; incremental, iterative, programming methods. 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 stresses, Cauchy strain energy, equilibrium equations; elastic and inelastic response of deformed bodies. Introduction to boundary integral equation method. Letter grading.

M232A. Plasticity. (4) (Same as Mechanical and Aerospace Engineering M256C.) Lecture, four hours; outside study, eight hours. Requisites: courses M230A, M230B. Classical rate-independent plasticity theory; yield functions, flow rules and thermodynamics of plastic deformation; viscous flow; shape memory alloy behavior; Croce, Zeny, and Duvant/Lions types of viscosity. Thermoplasticity and creep. Return mapping algorithms for plasticity and viscoplasticity. Finite element implementation. 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.


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 with geometrically non-linear systems; 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 non-linear 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 and free forced vibrations of single degree of freedom systems, introduction to response history and 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 142. Topics include earthquake loading and design of reinforced concrete beams, columns, slabs, walls, and foundations. Letter grading.


246. Structural Response to Ground Motions. (4) Lecture, four hours; outside study, six hours. Requisites: courses C137 or 246. Structural reliability analysis. Introduction to response spectrum analysis, earthquake engineering systems, computing sensitivities of failure probabilities to assumed parameter values, measuring relative importance of random variables associated with systems, identifying relationships, and performance of performance-based design methodologies, and application of elastic and inelastic analysis techniques for new and existing construction. Letter grading.

247. Earthquake Hazard Mitigation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 130 and M237A or 246. Concept of seismic isolation, linear theory of base isolation systems, seismic response of large mass structures, earthquake engineering systems, computing sensitivities of failure probabilities to assumed parameter values, measuring relative importance of random variables associated with systems, identifying relationships, and performance of performance-based design methodologies, and application of elastic and inelastic analysis techniques for new and existing construction. Letter grading.

248. Earthquake Ground Motion Characterization. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Corequisite: course C137 or 246. Earthquake fun 246. Earthquake fundamentals, including plate tectonics, fault types, seismic waves, and magnitude scales. Characterization of earthquake source, including magnitude range and rate of future earthquakes. Ground motion properties, earthquake 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.

modeling, floods, and policy issues involved in water resource engineering and management. Letter grading.

250B. Groundwater Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Required: Knowledge of mathematical programming techniques to water resources systems. Topics include reservoir management and operation; optimal timing, sequencing, and sizing of water resources projects; planning and design of conjunctive use of surface water and groundwater. Emphasis on management of water quantity. Letter grading.

250D. Water Resources Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Required: course 151. Application of mathematical programming techniques to water resources systems. Topics include reservoir management and operation; optimal timing, sequencing, and sizing of water resources projects; planning and design of conjunctive use of surface water and groundwater. Emphasis on management of water quantity. Letter grading.

251A. Rainfall-Runoff Modeling. (4) Lecture, four hours; outside study, eight hours. Required: courses 250A, 251B. Introduction to hydrologic modeling concepts, including rainfall-runoff analysis, input data, uncertainty analysis, lumped and distributed modeling, parameter estimation and sensitivity analysis, and application of models for flood forecasting and prediction of streamflows in water resource applications. Letter grading.


251C. Remote Sensing with Hydrologic Applications. (4) Lecture, four hours; outside study, eight hours. Required: courses 250A, 250C. Introduction to basic principles of remote sensing and concepts as they relate to surface and atmospheric hydrologic processes. Applications include radiative transfer modeling and retrieval of hydrologically relevant parameters like topography, soil moisture, snow properties, vegetation, and precipitation. Letter grading.

251D. Hydrologic Data Assimilation. (4) Lecture, four hours; outside study, eight hours. Required: courses 250A, 250C. Introduction to basic concepts of classical and Bayesian estimation theory for purposes of hydrologic data assimilation. Applications geared toward assimilating disparate observations into dynamic models of hydrologic systems. Letter grading.

252. Engineering Economic Analysis of Water and Environmental Planning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: Engineering 110, one or more courses from Economics 1, 2, 11, 101. Economic theory and applications in analysis and management of water and environmental problems; application of price theory to production of water and environmental resources; benefit-cost analysis with applications to water resources and environmental planning. Letter grading.


254A. Environmental Aquatic Inorganic Chemistry. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Required: Chemistry 208B, 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 their treatment. Processes include: acid-base chemistry and alkalinity (carbonate system), complexation, precipitation/dissolution, absorption oxidation/reduction, and photochemistry. Letter grading.

254B. Physical and Chemical Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Required: courses 155, 254A. Review of membrane and mass transfer, chemical reaction engineering, agglomeration 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. Required: courses 250A, 250B. Introduction to basic concepts, including rainfall-runoff analysis, input data, uncertainty analysis, lumped and distributed modeling, parameter estimation and sensitivity analysis, and application of models for flood forecasting and prediction of streamflows in water resource applications. Letter grading.

258A. Membrane Separations in Aquatic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Required: course 254A. Applications of membrane separations to desalination, water reclamation, brine disposal, and ultrapure water systems. Discussion of reverse osmosis, ultrafiltration, electrodialysis, and ion exchange technologies from both practical and theoretical standpoints. Letter grading.

260. Advanced Topics in Hydrology and Water Resources. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Required: courses 250A, 250B. Current research topics in inverse problem parameter estimation, experimental design, conjunctive use of surface and groundwater, multiobjective water resources planning, and optimization of water resources systems. Topics may vary from term to term. Letter grading.

261. Colloidal Phenomena in Aquatic Systems. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Required: courses 254A, 255A. Colloidal stability, colloidal hydrodynamics, surface chemistry, adsorption of pollutants on colloidal surfaces, transport of colloids in porous media, coagulation, and precipitation. Parameter estimation and applications to colloidal processes in aquatic environments. Letter grading.

261B. Advanced Biological Processes for Water and Wastewater Treatment. (4) Lecture, four hours; outside study, eight hours. Required: course 255B. In-depth treatment of selected topics related to biological treatment of waters and wastewaters, such as biodegradation of xenobiotics, pharmaceuticals, emerging pollutants, toxicity, and nutrients. Discussion of theoretical aspects, experimental observations, and recent literature. Application to important and emerging environmental problems. Letter grading.

M262A. Introduction to Atmospheric Chemistry. (4) Same as Atmospheric and Oceanic Sciences M203A.) Lecture, three hours. Required for under-graduates; Chemistry 208B. Principles of chemical kinetics, thermodynamics, spectroscopy, and photochemistry; chemical composition and history of Earth's atmosphere; biogeochemical cycles of key atmospheric species; chemistry of the stratosphere and stratospheric ozone; the role of anthropogenic emissions in stratospheric chemistry. Letter grading.

M262B. 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 common-plexes; 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. Transportation processes in surface water, groundwater, and atmosphere. Emphasis on exchanges across phase boundaries: sediment/water interface; air/water gas exchange; particles, droplets, and bubbles; small-scale environmental influences; and the impact of reactions on transport; linkages between physical, chemical, and biological processes. Letter grading.

263B. Advanced Topics in Transport in Environmental Interfaces. (4) Lecture, four hours; outside study, eight hours. Required: course 263A. In-depth treatment of selected topics involving transport phenomena at environmental interfaces between solid, fluid, and gas phases, such as aquifer/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. Required: courses 153, 254A. Environmental biotechnology—concept and potential, biotechnology of pollutant control, bioremediation, molecular biology, environmental consulting industry to gain better understanding of governing hydrogeological principles pertaining to movement and transformation of contaminants. Types of modeling include precipitation, mineral solubility, surface, complex reaction, path, inverse mass balance, and reactive transport modeling. Case studies involve acid mine drainage, nuclear waste disposal, bioavailability, and risk assessment, waste, deep well injection, landfill leachate, and microbial respiration. Research/modeling project required. Letter grading.

268. Rigid and Flexible Pavement Design, Materials, and Serviceability. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Correlation, analysis, and simulation of properties of pavement design, including materials selection and traffic loading and volume. Special attention to aspects of pavement distress/serviceability and factoring of these into metrics of pavement performance. Discussion of potential choices of pavement materials (i.e., asphalt and concrete) and their specific strengths and weaknesses in paving applications. Unification and correlation of different variables that influence pavement performance and highlight their relevance in pavement design. Concurrently scheduled with course C182. Letter grading.

296. Advanced Topics in Civil Engineering. (2 to 4) Seminar, to be arranged. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate civil engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or teaching apprentice. Preparation content: preparation in activity and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

395. Teaching Assistant Training Seminar. (2) Seminar, to be arranged. Preparations: 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. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Preparation for oral qualifying examination, including preliminary research 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. Supervised independent research for PhD candidates, including dissertation. S/U grading.

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, 40W, 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) 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).

Greek and Latin BA
Capstone Major

Learning Outcomes
The Greek and Latin major has the following learning outcomes:
• Demonstrated specific skills and expertise, including research, analysis, and writing
• Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
• Engagement with peers through presentation, discussion, and critique of student work
• Conception and execution of a project that identifies and engages with a specialized topic
• Working knowledge of scholarly discourse relative to a specialized topic

Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, 20, or equivalent. Latin 16 may be substituted for Latin 1, 2, 3.

Transfer Students
Transfer applicants to the Greek and Latin major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Greek and of Latin and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

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

The Major
Required: (1) 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 highest honors, students must (1) have a cumulative GPA of 3.85 or better in departmental courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A.

Classical Civilization Minor
The Classical Civilization minor is designed to recognize a serious commitment to the study of the cultures and civilizations of ancient Greece and Rome. Lower-division survey courses in historical studies, classical literature, mythology, and film provide an essential introduction to the imagination and power of the ancient world. Students may fulfill upper-division requirements from a variety of courses in classical civilization and related fields, including political and social history, literature, art and archaeology, religion, mythology, philosophy, and cultural studies of ethnicity, gender, and sexuality in antiquity.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (15 units): Classics 10, 20, and one course from 30, 40W, 41W, 42, 51A, 51B, 60.

Required Upper-Division Courses (20 units): Five upper-division courses in classical civilization offered by the department. One course in a related field may be substituted with approval of the faculty undergraduate adviser. Classics 191 may be applied, but all other
courses in the 190 series may be substituted only by petition. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Greek Minor**

The Greek minor is designed to recognize a serious commitment to the study of the Greek language. After a year of elementary Greek (Greek 1, 2, 3) or its equivalent, students select departmental upper-division reading courses in ancient Greek prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context. Subjects of study include Homeric epic, lyric poetry, tragedy and comedy, history, rhetoric, philosophy, and the New Testament.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

**Required Lower-Division Courses (14 units):**
Greek 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 2 and 3.

**Required Upper-Division Courses (20 units):**
Five courses selected from Greek 100 through 114.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Latin Minor**

The Latin minor is designed to recognize a serious commitment to the study of the Latin language. After a year of elementary Latin (Latin 1, 2, 3) or its equivalent, students select departmental upper-division reading courses in classical (and/or late antique and medieval) Latin prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context. Subjects of study include Roman comedy, epic, lyric, elegy, satire, history, rhetoric, philosophy, epigraphy, and the novel.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

**Required Lower-Division Courses (14 units):**
Latin 2, 3, 20, or equivalent. Latin 16 may be substituted for Latin 2 and 3.

**Required Upper-Division Courses (20 units):**
Five courses selected from Latin 100 through 113.

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

**Graduate Study**

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

**Graduate Degrees**

The Department of Classics offers the Master of Arts (MA) degree in Greek, Master of Arts (MA) degree in Latin, and Master of Arts (MA) Candidate in Philosophy (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/N 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/N 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/N 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/N 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/N 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/N 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 other 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/N or letter grading.

88A-88Z. Lower Division Seminars. (4 each) Seminar, three hours. Variable topics; consult Schedule of Classes or department for topics to be offered in specified term. P/N 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/N or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be 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 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/N or letter grading.

**Upper-Division Courses**

M114A. History of Ancient Mediterranean World. (4) Same as History M112C. Lecture, 30. 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/N or letter grading.

M114B. History and Monuments of Rome: Field Studies. (4) Same as History M112C. Fieldwork, five hours. Enforced corequisite: course M114A. Examination of history, art, and monuments of ancient Rome through daily lectures and field walks to museums and archaeological sites. Field trips outside Rome to Pompeii, Hadrian’s Villa, and ancient Ostia.
Reception and ruins of Roman antiquity in medieval, Renaissance, and modern eras explored in their historical context. Part of UCLA Summer Travel Pro-
gram. P/NP or letter grading.

M121. Ancient and Medieval Political Theory. (4) (Same as Political Science M112B) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include:Playable 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.

M124. Modern Receptions of Ancient Political Thought. (4) (Same as Political Science M115A) Lecture, three hours. Designed for juniors/seniors. Study of Western culture has conceived and reinterpreted political thought of ancient Greeks and Romans. Topics include analysis of influential case(s) of modern reception of classical antiquity. P/NP or letter grading.

M125. Invention of Democracy. (5) (Same as Political Science M112B) Lecture, three or four hours; dis-
cussion, one hour (when scheduled). Designed for ju-

niors/seniors. Democracy was invented in ancient Greece as political form grounded on equality before law, citizenship, and freedom. It came into existence as struggle against oppression. 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 historical theory of ancient democr-

acy. P/NP or letter grading.

130. Race, Ethnicity, Identity in Greco-Roman World. (4) Lecture, two and one half hours. Examina-
tion of construction of racial and ethnic identities in Greco-Roman world and ways that ancient texts and study of antiquity have influenced Western constructions of race. Case studies include both ethnographic construction of non-dominant groups (e.g., veneration of stereotypes like barbarian and noble savage) and experiences of members of marginalized groups within dominant cultures (e.g., Egyptian iden-
tity in Hellenistic Egypt, Greek, Syrian, and Jewish identity in Roman Empire). P/NP or letter grading.

137. Ancient Lives: Art of Biography. (4) Lecture, three hours. Study of origins, development, and prac-
tice of writing lives (i.e., biography) represented in cul-
ture, three hours. Overview of approaches to study of Rome and/or cities of Italy and Roman Empire. Approaches, themes, and per-
iods (both ancient city and receptions of city from classical antiquity to modern era) vary depending on individual instructor and topic. May be repeated for credit with topic change. P/NP or letter grading.

152B. Ancient City: Roman World. (4) Lecture, three hours. Enforced requisite: course 20 or 51B or Art History 20. History of ideas, cultural, and political approaches to study of Rome and/or cities of Italy and Roman Empire. Approaches, themes, and periods (both ancient city and receptions of city from classical antiquity to modern era) vary depending on individual instructor and topic. May be repeated for credit with topic change. P/NP or letter grading.

153A. Minoan Art and Archaeology. (4) (Same as Art History M111J) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture in Minoan Crete from circa 3000 to 1000 BC. P/NP or letter grading.

153B. Mycenaean Art and Archaeology. (4) (Same as Art History M112A) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture in Mycenaean Greece from circa 2000 to 1000 BC. P/NP or letter grading.

153C. Arcaic Greek Art and Archaeology. (4) (Same as Art History M112B) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture of Greek world from approximately 800 through 490 BC. P/NP or letter grading.

153D. Classical Greek Art and Archaeology. (4) (Same as Art History M112C) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture of Greek world from middle of 4th century BC, including transmittal of Greek art forms to Romans. P/NP or letter grading.

153E. Hellenistic Greek Art and Archaeology. (4) (Same as Art History M112D) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture of Greek world from middle of 3rd century BC, including transmittal of Greek art forms to Romans. P/NP or letter grading.

153F. Roman Art and Archaeology. (4) (Same as Art History M113A) Lecture, three hours. Requisite: preparation: one course from 10 to 51B or Art History 20. Arts of Italic peninsula from circa 1000 BC to end of Roman Republic. P/NP or letter grading.

153G. Roman Art and Archaeology. (4) (Same as Art History M113B) Lecture, three hours. Requisite: course 20 or 51B or Art History 20. Art and architecture of Rome and its Empire from circa 300 BC to AD 300. P/NP or letter grading.

153H. Late Roman Art. (4) (Same as Art History M113C) Lecture, three hours. Requisite: course 20 or 51B or Art History 20. Art of Roman Empire from 2nd through 4th century (AD). P/NP or letter grading.

duction to study of Aegean, Greek, and Roman architec-
ture, sculpture, and painting. May be repeated for credit with department consent. P/NP or letter grading. M153I. Greco-Roman Architecture; M153J. Greco-Roman Sculpture; M153K. Greco-Roman Painting.

153L. Late Antique Art and Architecture. (4) (Same as Art History CM115A) Lecture, three hours. Art and architecture of latest centuries of Roman Empire and early Christian world. P/NP or letter grading.

160. Legal Advocacy in Ancient World. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 10 or 20. Study of theory and prac-
tice of legal advocacy in classical antiquity. May be repeated for credit. Letter grading.

161. Women’s History in Ancient Mediterranean. (4) Lecture, three hours. Overview of approaches to problem of writing women’s history in ancient Medi-
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terranean world. Topics include: women in work, religion (pagan, Christian, Jewish), and literature, with particular attention to themes of war, slavery, and sex trafficking. Exercises train students in critical use of
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 on later literatures. May be repeated once for credit with topic change. P/NP or letter grading.


165. Ancient Athletics. (4) Lecture, three hours. Requires: course 10 or History 1A. Study of ancient Greek and Roman athletics and their institutions with relation to religion, politics, literature, and art. P/NP or letter grading.


167. Magic in Ancient World, (4) (Same as Ancient Near East 167.) Lecture, three hours; discussion, one hour (when scheduled). Requires: 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 magicians, and artifacts such as amulets and ritual implements. P/NP or letter grading.

168. Comparative Mythology. (4) Lecture, three hours. Requires: 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 ideas were, how they changed over time, and difference it makes. Readings include both modern theories about sex and history as foun- dation for course and broad range of ancient texts in translation. P/NP or letter grading.


175. Course in Greece 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, and beyond. Reading Roman poet Vergil, poets of classical antiquity established robust tradition of epic with well-established literary tropes and nationalistic aims, cultural voice contrib- ute 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. In- vestigation of one such area by examining epic traditions of Central and South America, (mediated 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. Requires: Greek 3 or Latin 3. Linguistics of Greek and 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 vo- cabulary, from Proto-Indo-European prehistory to cur- rent slang. Topics include Topos and Latin compounds in English (including technical terminology), alphabet and English spelling, semantic change and word for- mation, vocabulary in literature and film. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

198HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to upper-division lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. P/NP or letter grading.

199. Research Colloquia in Classics. (1) Seminar, one hour. Limited to juniors/seniors. Designed to bring together students undertaking supervised tuto- rial research in seminar setting with one or more fac- ulty members. May be taken for work on or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

199H. Seminar: Classics. (5) Seminar, three hours. Requires: courses 10, 20, at least four upper-division major courses. Limited to declared ju- nior/senior departmental majors; minors may be ad- mitted with consent of instructor. Topic research seminar on important themes, periods, genres of an- cient Greek and Roman literature intended to provide students with opportunity for serious engagement with research in discipline under close faculty supervi- sion. Readings, discussions, oral presentations, and final research paper or project. May be repeated for credit. Letter grading.

199J. Journal Club Seminars: Classics. (1) Seminar, one hour. Limited to undergraduate students. Group discussion of readings and topics selected from cur- rent issues in classics and related disciplines. May be repeated for credit. P/NP grading.

199I. Individual Studies in Classics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Individual inten- sive 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) Tuto- rial, 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 re- quired. 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 Manu- scripts, 900 to 1500. (4) (Same as English M215, French M210, and History M218.) Lecture, three hours; discussion, two hours. Introduction to history of Latin and vernacular manuscript book from 900 to 1500 to (1) train students to make informed judgments with regard to place and date of origin, (2) pro- vide training in accurate reading and transcription of later medieval scripts, and (3) examine manuscript book as witness to changing society that produced it. Focus on relationship between Latin manuscripts and vernacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.

220A. Interfaces: Transmission of Roman Litera- ture. (2 or 4) Seminar, three hours. Examination of transmission of Latin classical literature in late antiquity, Middle Ages, and modern times to understand processes by which Latin literature has been pre- served. S/U (2-unit course) or letter (4-unit course) grading.

224. Textual Criticism: Studies in Preparation of Critical Edition of Greek and/or Latin Texts. (2 or 4) Seminar, three hours. Different steps required in preparation of critical edition of ancient text; localizing manuscripts; collation; establishing a text; select- ing right reading on basis of knowledge of context, of text, of language of author, and of sources; emenda- tions; formulation of apparatus criticus and apparatus fo- tum. 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 Liter- ature. (2 or 4) Seminar, three hours. Interdisciplinary study on topics of ancient Greek and Roman culture and literature. May be repeated for credit with topic change. S/U or letter grading.

251A. Seminar: Classical Archaeology—Aegean Bronze Age. (2 or 4) Seminar, three hours. S/U or letter grading.

251B. Seminar: Classical Archaeology—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 re- peated 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
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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 to- pography and monuments of ancient Athens, combining ev- idence 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 to- pography and monuments of ancient Rome, combin- ing 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.

278. Graduate Colloquium in Classical Literature. (2) Seminar, three hours. Survey of basic methods of and approaches to classical scholarship, including textual criticism, literary interpretation and theory, hermeneutics, interdisciplinary studies, and computer applications to classics. Emphasis varies from year to year, depending on instructor(s). May be repeated for credit with topic change. S/U grading.

288. Literary Theory. (2 or 4) Discussion, three hours. Designed for students with an interest in textual criticism and the critical and historical study of literature. 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 guide- line and supervision of regular faculty member res- ponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Classics. (2) Seminar, two hours. Nor- mally to be taken by all graduate students in term be- fore or during first assignment as teaching as- sistant. Seminar/workshop in various pedagogical issues and strategies in preparation for teaching clas- sical civilization, Greek, and/or Latin undergraduate courses. May be applied toward MA or PhD course requirements. S/U grading.


596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Study for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.

599. Research for MA or PhD Dissertation. (2 to 8) Tuto- rial, to be arranged. S/U grading.

Greek

Lower-Division Courses

1. Elementary Greek. (5) Lecture, three hours; dis- cussion, two hours. P/NP or letter grading.

2. Elementary Greek. (5) Lecture, three hours; dis- cussion, two hours. Enforced requisite: course 1, P/ NP or letter grading.

3. Elementary Greek. (5) Lecture, three hours; dis- cussion, two hours. Enforced requisite: course 2, P/ NP or letter grading.

4A-8B-8C. Elementary Modern Greek. (4-4-4) Lecture, three hours. Course 8A is enforced requisite to 8B, which is enforced requisite to 8C. Introduces modern Greek sequence, with emphasis on spoken modern Greek. P/NP or letter grading.

9A-9B-9C. Intermediate Modern Greek. (4-4-4) Lecture, three hours. Enforced requisite: course 8C. Course 9A is enforced requisite to 9B, which is en- forced 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 com- munication skills, communicate in everyday real-life situations, comprehend simple passages, announce- ments, and advertisements, master basic rules of modern Greek grammar and syntax, read fluently, and write accurately. P/NP or letter grading.

10. Elementary Modern Greek. (12) Lecture, 18 to 19 hours. Eight-week intensive introduction to princi- ples of speaking, reading, and writing modern (de- motic) Greek. Offered in summer only. P/NP or letter grading.

11. Intermediate Modern Greek. (12) Lecture, 18 to 19 hours. Eight-week intensive introduction to Greek lan- guage equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.


19. Honors Seminars. (1) Seminar, three hours. Lim- ited to 20 students. Designed as adjunct to lower-divi- sion lecture course and for a special group of students with an interest in ancient Greece. Opportunities for 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.

99H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to lower-division lecture course or 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 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 under individual supervision. 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.

100. Readings in Greek Prose and Poetry. (4) Lecture, three hours. Requisite: course 20. Introduction to developing skills of reading longer, continuous passages of original Greek prose and/or poetry texts, with at- tention to literary and cultural background. Course is normally required in the second half of the second year. May be repeated for credit with change of as- signed readings and with consent of instructor. P/NP or letter grading.


102. Lyric Poets. (4) Lecture, three hours. Requisite: course 100. Selections from Archilochus to Bac- chylides, P/NP or letter grading.

103. Aeschylus. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

104. Sophocles. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


107. Hesiod. (4) Lecture, three hours. Requisite: course 100. Reading of Theogony and excerpts from Works and Days, with emphasis on Hesiod's place in Greek literature and his role in transmission of Greek mythology. P/NP or letter grading.


112. Thucydides. (4) Lecture, three hours. Requir- e: course 100. P/NP or letter grading.

113. Xenophon. (4) Lecture, three hours. Requisite: course 100. Reading of one major work of Xeno- phon—Memorabilia, Cyropaedia, Anabasis, Helenica, or Oeconomicus—in Greek. P/NP or letter grading.

121. Plato. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


131. Readings in Later Greek. (4) Lecture, three hours. Requisite: course 100. Topics vary from year to year and include “Longinus,” On Sublime; Marcus Au- relius; Anian; Second Sophistic; Plutarch; later epic: epigram; epistolographi Graeci. P/NP or letter grading.


133. Readings in Byzantine Literature. (4) Lecture, three hours. Requisite: course 132. Topics vary from year to year and include Procopius, Agathias, Michael Psellus, Alexiad of Anna Comnena, and Digenis Akritas. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture courses in exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

197. Individual Studies in Greek. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Individual inten- sive 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 Greek. (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/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. Hesiod. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

204. Homerian Hymns. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

205. Aeschylos. (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.


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. Aeolian Lyric. Study of lyric poetry of Archaic period, both choral and monodic, with elegiac 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: Chaeareas 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.

229. Sight Translation. (2) Seminar, three hours. Preparation of 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 and historical translation, semantic properties of particular words and constructions. S/U grading.


241. Greek Epigraphy. (2 or 4) Seminar, three hours. Survey of Greek inscription, its relationship to the Ancient Greek linguistic and cultural history, and S/U grading.


243. Mycenaean Greek. (2 or 4) Seminar, three hours. Script, language, and grammar of Linear B inscriptions; their relevance to ancient Greek linguistic and cultural history; S/U and letter grading.

244. Greek Papyrology. (2 or 4) Seminar, three hours. Preparation: reading knowledge of Greek. Introduction to Greek papyri, considered both as historical documents and as carriers of literature. S/U (2-unit course) or letter (4-unit course) grading.

245. Greek Palaeography. (2 or 4) Seminar, three hours. Studies in development of book hand in Greek manuscripts earlier than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.

250. Topical Studies of Ancient Greece. (2 or 4) Lecture, three hours. Advanced study of some aspect of ancient Greek language, literature, and/or culture. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Study for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Latin

Lower-Division Courses

1. Elementary Latin. (5) Lecture, three hours; discussion, two hours. P/NP or letter grading.

1A. Elementary Latin for Graduate Students. (No credit) Lecture, eight hours. Concurrently scheduled with course 1A. S/U 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 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 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. Intermediate Latin: Introduction to Reading Latin (4) Lecture, three hours. Enforced requisite: course 20 (may be taken concurrently). Introduction to developing skills of reading longer, continuous passages of original Latin prose and/or poetry texts, with attention to literary and cultural background. Course is requisite to advanced reading courses. May be repeated for credit twice with change of assigned readings and with consent of instructor. P/NP or letter grading.

110A. 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.

110B. Advanced Vergil. (4) Lecture, three hours. Requisite: course 110A. Reading and discussion of Vergil’s Eclogues, Georgics, and/or second half of Aeneid. May be repeated for credit with change in readings. P/NP or letter grading.

111. Catullus. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

116. Torquatus, five hours. Requisite: course 100. P/NP or letter grading.

83. 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.
212. Cicero: Philosophical Works. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.
213. Cicero: De Natura Deorum. (2 or 4) Lecture, three hours. Course 221A is not requisite to 221B.
214. Seminar: Roman Stoicism. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.
215. Lucilius. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.
216. Seneca. (2 or 4) Seminar, three hours. Detailed study of one work of prose or poetry by younger Seneca. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.
217. Sight Translation. (2) Seminar, three hours. Preparation: graduate-level knowledge of Latin. 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.
218A-231B. Seminars: Medieval Latin. (2 or 4 each) Seminar, three hours. Preparation: at least one upper-division Latin course. Course 231A is not requisite to 231B. Studies in various areas of language and literature of medieval Latin. May be repeated for credit with consent of instructor. S/U (2-unit course) or letter (4-unit course) grading.
219. Vandal Latin. (2 or 4) Lecture, three hours. History and characteristics of popular Latin; its development into early forms of Romance languages. S/U or letter grading.
220. Late Latin Poetry. (2 or 4) Seminar, three hours. History and characteristics of popular Latin; its development into early forms of Romance languages. S/U or letter grading.
221. Vulgar Latin. (2 or 4) Lecture, three hours. History and characteristics of popular Latin; its development into early forms of Romance languages. S/U or letter grading.
223. Seminar: Latin Paleography. (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.
224. Neo-Latin. (2 or 4) Seminar, three hours. Preparation: at least two upper-division Latin courses. Requisite: course 100. Survey of texts by one or more 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.
225. 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 different author. S/U (2-unit course) or letter (4-unit course) grading.
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 interracial 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 freshmen. Letter grading. M1A-M1B. Lecture, three hours; discussion, two hours. Food as lens for local and global environmental and sustainability issues. Integration of environmental, social, economic, and technological solutions for fair, sustainable, and healthy food production, food security, and access. Focus on human impacts on Earth’s biological and physical systems. Limited to first-year freshmen. Letter grading. M1A-M1B -M1CW. Limited to first-year freshmen. Letter grading. M1A-M1B-M1CW. Limited to first-year freshmen. Letter grading. M1A-M1B-M1CW. Limited to first-year freshmen. Letter grading.


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 freshmen. Letter grading. 25A-25B. Lecture, three hours; discussion. Course M25A is enforced requisite to 25B, which is enforced requisite to 25CW. Limited to first-year freshmen. Letter grading. 25A-25B-25CW. Lecture, three hours; discussion. In-depth examination of issues in historical evolution of popular East Asian urban culture and interrelationship of East Asian politics, social life, and economic and urban cultural expression. 25CW. Special Topics. Seminars. Three hours. Enforced requisite: course 25B. Course M25A is enforced requisite to 25B, which is enforced requisite to 25CW. Limited to first-year freshmen. Letter grading. 25A-25B. Lecture, three hours; discussion. Course M25A is enforced requisite to 25B, which is enforced requisite to 25CW. Limited to first-year freshmen. Letter grading. 25A-25B-25CW. Lecture, three hours; discussion. Introduction to social determinants of health, with focus on cultural, historical, socioeconomic, public health, medical, political, and artistic context of poverty in modern Latin America and on different local, national, and regional responses to health inequities. Exploration of major trends and debates that have shaped and continue to define issues related to poverty and health in region. 26B. Lecture, three hours; discussion. Course M26A is enforced requisite to 26B, which is enforced requisite to 26CW. Limited to first-year freshmen. Letter grading. 26A. Lecture, three hours; discussion. Course M26A is enforced requisite to 26B, which is enforced requisite to 26CW. Limited to first-year freshmen. Letter grading. 26A. Lecture, three hours; discussion. Course M26A is enforced requisite to 26B, which is enforced requisite to 26CW. Limited to first-year freshmen. Letter grading. 26A. Lecture, three hours; discussion. Course M26A is enforced requisite to 26B, which is enforced requisite to 26CW. Limited to first-year freshmen. Letter grading. 26A.
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-40B, 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 classic — those considered valuable — read by large numbers of people across centuries, including religious scriptures, legal codes, novels, paintings, and performances. Exploration of how Chinese classics have been used and remagined in different places and times 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 remaginations 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 events from 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 systemetic way to learn what it is to be their home for next several years. As they do, they come to understand peoples, spaces, politics, and cultures of Los Angeles and its metropolitan region in both present and past, and how Los Angeles placed in a broader 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 homelessness in Los Angeles. Satisfies Writing II requirement.

70A-700D. Evolution of Cosmos and Life. (6 each) (Formerly numbered General Education Clusters 70A-70DW) Course 70A is enforced requisite to 70B, which is enforced requisite to 70WC or 70DW. Limited to first-year freshmen. 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 modern methods and physical sciences. Examination of evolution of universe, galaxy, solar system, and Earth in course 70A; focus on evolution of life in course 70B. 70DW, Special Topics in Life Sciences. Students choose one course of their interest. 70A-70D, Lecture, three hours; discussion, two hours. Examination in depth of various issues of evolution in cosmos from life sciences perspectives relevant to the life II requirement. 70D, 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 physics sciences perspective. Satisfies Writing II requirement.

71A-71B-71CW. Biotechnology and Society. (6–6–6) (Formerly numbered General Education Clusters 71A-71B-71CW) Course 71A is an enforced requisite to 71B, which is enforced requisite to 71CW. Course 71A is limited to first-year freshmen. Letter grading. 71A-71B, 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. 71CW. Special Topics. Seminar, three hours. Enforced requisite: course 71B. Topics include impact of ethics and human genetics, bioweapons and biodefense, sex and biotechnology. Satisfies Writing II requirement.

72A-72B-72CW. Sex from Biology to Gendered Society. (6–6–6) (Formerly numbered General Education Clusters 72A-72B-72CW) Course 72A is an enforced requisite to 72B, which is enforced requisite to 72CW. Limited to first-year freshmen. Letter grading. 72A-72B, Lecture, three hours; discussion, two hours. Examination of many ways in which sex and sexual identities are shaped by biological and social forces, approached from complementary perspectives of anthropology, biology, medicine, and sociology. Specific topics include biological origins of sex and gender, intensity, gender identity, gender inequality, homosexuality, sex differences, sex/gender and law, and politics of sex research. 72CW. Special Topics. Seminar, three hours. Enforced requisite: course 72A. Topics may include study of political reproduction, sexuality, sexual identity, social construction of gender, and reproductive technologies. Satisfies Writing II requirement.

73A-73B-73CW. Mind over Matter: History, Science, and Philosophy of Brain. (6–6–6) (Formerly numbered General Education Clusters 73A-73B-73CW) Course 73A is enforced requisite to 73B, which is enforced requisite to 73CW. Limited to first-year freshmen. Letter grading. 73A-73B, Lecture, three hours; discussion, two hours. Human brain is most complex structure in universe and last major organ system to be understood. Our brains give us power to see and hear, learn and remember, interpret others, and act purposefully in our environment. We can lose these abilities that we take for granted, naturally over time or as result of injury or disease. Brain function is affected by factors 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 perspectives to help 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, neuro-science 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 an 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 top. 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. (5) 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. (5) Seminar, three hours. Enforced requisite: course 180A. How tangible and intangible materials of human culture are used by their creators to fashion and refashion their identities over time and in different spaces. Introduction to multidisciplinary perspectives on human cultures and associated objects they create, different issues 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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Michael W. Suman, PhD

Adjunct Assistant Professors
Abigail H. Goldman, MS
Barry A. Sanders, JD

Scope and Objectives
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 charge. Applications are available on the department website to regularly enrolled UCLA students during spring quarter.

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 preparation for the major courses as possible before admission to the program.

Required: Communication 1, 10, one course selected from Anthropology 4, Communication M70, Linguistics 1, or Philosophy 23, one statistics course from Economics 41 or Statistics 10. Three additional courses must be selected from Communication 40, Psychology 10, Sociology 1, and Economics 1 or 5 or Political Science 30.

Transfer Students
Transfer applicants to the Communication Studies major with 90 or more units must complete at least four of the following seven lower-division required courses: Communication 10 or one interpersonal communication and one mass communication course, one public address course, one linguistics course, one statistics course, and three courses from psychology, American government, sociology, and microeconomics or political economy.

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

The Major
Students must complete 10 or 11 upper-division courses. The practicum requirement can be satisfied by a course that also satisfies a core or an additional area elective course requirement.

Required Core Courses: Communication 100, 150.

Required Area Courses: A total of eight courses from the following four areas, including at least one core course in each area:

Communication Technology and Digital Systems—Core courses: Communication 129, 151, 154, 156, 158; elective courses: Communication 157, 188C, 191C, Geography 138.


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 3.8 or better in upper-division coursework in the major and an overall GPA of 3.5 or better in all completed University of California coursework, (3) complete Communication 198A, 198B, and 198C, and (4) produce a completed satisfactory honors thesis (as determined by a recommendation of their thesis adviser and final approval by the department chair). Contact the student affairs officer for more information.

Computing Specialization
Majors in Communication 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-
18. Learning American English and Culture from Movies. (4) (Formerly numbered Communication Studies 101.) Understanding the evolution of communicators’ fluency in conversational English while increasing their awareness of American popular culture. Primer on American-style colloquial English and nuances of conversation 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.

20. Introduction to Communication Studies. (5) (Formerly numbered Communication Studies 10.) Lecture, four 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 entailed in rights of free expression, access to audience, and access to information. Study of court decisions governing freedom of communication in U.S. P/NP or letter grading.


M70. Origin of Language. (5) (Formerly numbered Communication Studies M70.) (Same as German M70 and Indo-European Studies M70.) Lecture, three hours; discussion, one hour. Historical and comparative approach to fields of mass communication and interpersonal communication. Study of modes, media, and effects of mass communication, interpersonal processes, and communication theory. Letter grading.

M72B-M72C. Sex from Biology to Gendered Society. (6-6-6) (Formerly numbered Communication Studies M72B-M72C.) 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 of child raised, and the politics of sex research. Lecture, three hours. Three discussions. Examination of topics in greater depth through student precepts, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

M88. Sophomore Seminars: Communication Studies. (4) (Formerly numbered Communication Studies 88.) 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.

M90. Honors Seminars. (1) (Formerly numbered Communication Studies 90.) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through student precepts, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

M98C. Honors Contracts. (1) (Formerly numbered Communication Studies 89C.) 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 supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

M93. Student Research Program. (1 to 2) (Formerly numbered Communication Studies 93.) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

100. Communication Theory. (4) (Formerly numbered Communication Studies 100.) Lecture, four hours. Requisite: course 10 or Linguistics 1, or Sociology 1 or Psychology 10. Analysis of fundamental nature of human communication; its physical, linguistic, psychological, and sociological bases. Study of theories of communication and constitutants of communicative act. P/NP or letter grading.

101. Freedom of Communication. (4) (Formerly numbered Communication Studies 101.) Lecture, four hours. Analysis of legal, political, and philosophical issues entailed in rights of free expression, access to audience, and access to information. Study of court decisions governing freedom of communication in U.S. P/NP or letter grading.


103A-103B. Forensics. (4-4) (Formerly numbered Communication Studies 103A-103B.) Lecture, three hours. Participation in on-campus and intercollegiate forensics activities, including exposure to fundamenals of competitive forensics events. Students practice public address, interpretation of literature, debate, oratory, and extemporaneous speaking and engage in independent research and analysis. P/NP or letter grading.

103A. Basic preparation; 103B. Advanced practice in speech.

104. Analysis and Briefing. (4) (Formerly numbered Communication Studies 104.) Lecture, three hours. Explanation of types of communication that occur in close relationships, especially romantic relationships, in-depth coverage of variety of relationship topics, including intimacy, stages of intimate relationships, and communication patterns. P/NP or letter grading.

105. Conspiracy Theories, Media, and Middle East. (4) (Formerly numbered Communication Studies 105.) Lecture, three hours. Background knowledge of Middle East not required. Through mass and digital media, conspiracy theories reshape politics and society around the world. Although not widely shared, they find particularly fertile ground in the Middle East. Definition, identification, and analysis of conspiracy theories as they appear in media of Muslim societies. Interdisciplinary approach to the study of what conspiracy theories tell about relationship between media and society in Middle East. Case studies, such as conspiracy theories about 9/11, to be taken from Middle Eastern media sources in English translation. P/NP or letter grading.

106. Reporting America. (4) (Formerly numbered Communication Studies 106.) Lecture, three hours. Introduction to main western European and Middle Eastern news media, with materials in English. Exploration of how U.S. is represented in Europe, Middle East, Iran, and Afghanistan, with focus on three comparative case studies: family and children, in-depth coverage of American news as reflected in Europe and Middle East. P/NP or letter grading.

107. Terrorism in Journalism. (4) (Formerly numbered Communication Studies 107.) Lecture, three hours. How do media in the Middle East represent Islamist terrorism? How do they describe, analyze, and comment on suicide attacks? Focus on Arab, Arab Gulf, and Iranian media discussions of this phenomenon to explore evolution of meaning of terrorism in Muslim societies. P/NP or letter grading.

108. Entrepreneurial Communication. (4) (Formerly numbered Communication Studies 108.) Lecture, four hours. Study of entrepreneurial communication from foundations in interpersonal and public communications and development of data analysis, interpretation, and presentation skills utilized in existing, as well as in development of, contemporary businesses. P/NP or letter grading.

109. Gender and Communication. (4) (Formerly numbered Communication Studies 110.) Lecture, four hours. Understanding gender is fundamental part of understanding who we are as human beings. Exploration of crucial role of gender in spheres of life involving communication and role and origins of gender differences in communication. Contacts of communicative interaction include family, workplace, sexuality, and intimate relationships. Discussion of media influence on conceptions of gender. P/NP or letter grading.

110. Conflict and Communication. (4) (Formerly numbered Communication Studies 110.) 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.

111. Current Issues in Vocal Communication. (4) (Formerly numbered Communication Studies 111.) Lecture, three hours. Requisite: course 118 or 120 or 126. Examination of contemporary issues in evolution of communication research. Topics may include design of communication systems, animal signaling, social communication, and speech production and perception. P/NP or letter grading.

112. Nonverbal Communication and Body Language. (4) (Formerly numbered Communication Studies M112.) 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, gestures, and kinesics) with strong emphasis on culture. Readings from variety of related fields. P/NP or letter grading.

113. 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 topics, including intimacy, stages of intimate relationships, and communication patterns. P/NP or letter grading.

114. Communication and Conflict in Couples and Families. (4) (Formerly numbered Communication Studies M114.) Lecture, three hours. Examination of (1) dysfunctional communication and conflict in couples and families and (2) relationship of these processes to individual psychopathology, marital discord, and family disruption (e.g., separation and divorce). P/NP or letter grading.

115. Negotiation. (4) (Formerly numbered Communication Studies M115.) (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, gestures, and kinesics) with strong emphasis on culture. Readings from variety of related fields. P/NP or letter grading.

116. Language and Music. (4) (Formerly numbered Communication Studies 116.) Lecture, three hours. Examination of (1) dysfunctional communication and conflict in couples and families and (2) relationship of these processes to individual psychopathology, marital discord, and family disruption (e.g., separation and divorce). P/NP or letter grading.

M117. Negotiation. (4) (Formerly numbered Communication Studies 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 underlie successful negotiation. Experiential course in which students learn broad array of negotiation skills, including identifying one’s own (and others’) communication style, identifying and incorporating components of successful negotiation, and resolving conflict between parties. Letter grading.

118. Language and Music. (4) (Formerly numbered Communication Studies 118.) Lecture, three hours. Cognitive science exploration of structure and evolution of language and music and their relationships to communication, cognition, and P/NP or letter grading.

119. Voice and Its Perception. (4) (Formerly numbered Communication Studies 119.) Lecture, four hours. Focus on how human voice conveys information, including identity of sex, age, gender, location, and affect; and on how listeners utilize this information to make judgments about speakers. Letter grading.
120. Group Communication. (4) (Formerly numbered Communication Studies 120.) Lecture, four hours. Examination of group communication from perspectives of evolutionary psychology, communication, and psycholinguistics. Topics include evolution of cooperation, group dynamics, language, and new media. Letter grading.

M123W. Talk and Body. (5) (Formerly numbered Communication Studies M123W.) (Same as Anthropology CM123W.) Lecture, four hours; discussion, one hour. Requisite: English Composition 3. Relationship between language and human body raises host of interrelated issues to be explored. Focus is on how human bodies are constructed by and as discourse; such as embodiment becomes possible when body is analyzed, not as isolated entity, but as visible agent in community. Letter grading.

M131. Talk and Social Institutions. (4) (Formerly numbered Communication Studies M131.) Lecture, four hours. Discussion of certain portrayals of gay and lesbian characters selected by media portraying women and/or minorities in entertainment, advertising, and information media on individuals and social institutions. Letter grading.

M137. Transnational Bollywood. (4) (Formerly numbered Communication Studies M137.) Lecture, one hour. Focus on importance of how 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.

148. Integrated Marketing Communications. (4) (Formerly numbered Communication Studies 148.) Lecture, three hours. Examination of classic concepts and methods in marketing communications in both traditional and digital media. Development and execution of communication strategies, with primary emphasis on consumer insight, branding, market segmentation, positioning, promotion, and execution of marketing communications through appropriate media technologies. Letter grading.

M149. Media: Gender, Race, Class, and Sexuality. (5) (Formerly numbered Communication Studies M149.) (Same as Gender Studies M149 and Labor and Workplace Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/senior Communication Studies and Gender Studies majors and Labor and Workplace Studies minors. Examination of topics in mass media that influence and are influenced by social categories of sex, race, class, and sexuality. Discussion of how media representations and portrayals of various groups have tended to dominate. Letter grading.


151. Computer-Mediated Communication. (4) (Formerly numbered Communication Studies 151.) Lecture, four hours; examination of how computer technology, particularly Internet, has influenced patterns of human communication. History and distinctiveness of computer-mediated communication (CMC). CMC's influence on modern and domestic, political, and social interaction. Letter grading.

152. Analysis of Communication Effects. (4) (Formerly numbered Communication Studies 152.) Lecture, four hours; Survey of experimental and field research designs, effects of communication, and techniques of evaluation, a study of conversational interaction, such as turn-taking organization, repair, and some basic sequence structures with limited expansions. P/NP or letter grading.

153. Media and Aggression against Women. (4) (Formerly numbered Communication Studies 153.) Lecture, three hours; Social scientific study of intersection between mass media and men's aggression against women. Particular consideration of sexual aggression, pornography, and characteristics of aggressive men. Analysis of interaction between nature and nurture. Letter grading.

154. Social Communication and New Technology. (4) (Formerly numbered Communication Studies 154.) Lecture, four hours. Internet's digital core was designed for military command. Yet emerging network was gradually co-opted to perform communicative functions, such as gathering news, entertain- ment, and trade. Exploration of history, social effects, and possible futures of digital communication. Letter grading.

155. Artificial Intelligence and New Media. (4) (Formerly numbered Communication Studies 155.) Lecture, three hours. Review of origin and modern development of artificial intelligence (AI) and its recent breakthroughs, with special emphasis on its usesages of media industry (personalization, recommendation, and target advertising). Study includes technical merits and controversies such as ethical and moral issues of AI, privacy concerns in data collection, and fair use of AI in general. P/NP or letter grading.
Celebrity, Fame, and Social Media. (Formerly numbered Communication Studies 157.) Lecture, three hours. Analysis of how celebrity and media fame impact and influence our lives and how social media creates new forms of fame. Letter grading.


M159. Pornography and Evolution. (Formerly numbered Communication Studies M159.) Same as Gender Studies M159., three hours. Examination 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. Political Communication. (Formerly numbered Communication Studies 160.) Lecture, four hours; discussion, one hour. Study of the nature and function of political communication and the role of the media in political change. Lecture grading.

M161. Entertainment Law. (4) (Formerly numbered Communication Studies 161.) Lecture, three hours. Examination of First Amendment and commercial speech, with specific reference to shopping malls, news tabloid newspapers, and cable television. Letter grading.

M162. Presidential Communication. (Formerly numbered Communication Studies 162.) Lecture, three hours. Examination of historical oral and written communication of presidents, with special reference to how presidents use speech, images, and policies in presidential communication. Letter grading.


M164. Entertainment Law. (4) (Formerly numbered Communication Studies 164.) Lecture, three hours. Focus on the concept of freedom of expression in professional and academic settings. 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. Intensive study of selected agitational movements and techniques, and content of their communication. Letter grading.


M167. Sex, Politics, and Race: Free Speech on Campus. (4) (Formerly numbered Communication Studies M167.) Lecture, three hours. Focus on the concept of freedom of expression on campus during postsecondary education. How First Amendment, case law, and federal and state statutes affect students’ and teachers’ abilities to speak on and off campus. Discussion of harassment and campus speech codes, campus demonstrations, student publications, student conduct regulations, and restrictions on displays of art and other symbolic forms of expression. P/NP or letter grading.

M168. Free Speech in Advertising. (4) (Formerly numbered Communication Studies 168.) Lecture, three hours. Exploration of First Amendment and commercial speech within context of product and service advertising (e.g., vice products such as tobacco, alcohol, illegal drugs, gambling; pharmaceutical drugs; and political advertisements). Examination of when, where, and how restrictions imposed on advertising and commercial speech, with specific reference to shopping malls, news tabloid newspapers, and billboards. Letter grading.

M169. Visual Communication and Social Advocacy. (4) (Formerly numbered Communication Studies M169.) Same as Labor and Workplace Studies M176.) Lecture, four hours. Examination of how communication reaches diverse audiences in communicating major social and political topics. Cartoons, posters, murals, and documentary photography have had powerful global impact. Survey of visual communications as features of modern mass media. Letter grading.

M170. Legal Communication. (4) (Formerly numbered Communication Studies 170.) Lecture, four hours. Study of First Amendment and free speech issues, as well as the role of legal discourse. Analysis of elements of judicial process as they affect quality of communication content. Study of rules of evidence, jury behavior, and structure of legal discourse. Letter or P/NP grading.

M171. Theories of Freedom of Speech and Press. (4) (Formerly numbered Communication Studies 171.) Lecture, three hours. Exploration of the nature of freedom of expression in professional and academic settings. Letter or P/NP grading.

M172. Free Speech in Workplace. (4) (Formerly numbered Communication Studies M172.) Same as Labor and Workplace Studies M172.) Lecture, three hours. Examination of how employees express themselves in workplace setting. Focus on concept of freedom of expression in workplace and how First Amendment, case law, and federal and state laws protect employees’ ability to speak at work. Discussion of conflict between discrimination law and ability to speak freely at work as well as limits of speech, work environment, labor law, and First Amendment. Letter grading.

M173. Propaganda and Media. (4) (Formerly numbered Communication Studies M173.) Lecture, four hours. Exploration of how media and the government have created images in the minds of the public and how these images affect practical understanding of way our nation is perceived by others. Exploration of roots of U.S. images in minds of people abroad. Analysis of influences that contribute to images and ways in which images affect practical matters. P/NP or letter grading.


M175. Criticism and Public Arts. (4) (Formerly numbered Communication Studies 175.) Lecture, four hours; discussion, one hour (when scheduled). Exploration of First Amendment and free speech issues, as well as the role of legal discourse. Analysis of elements of judicial process as they affect quality of communication content. Study of rules of evidence, jury behavior, and structure of legal discourse. Letter or P/NP grading.

M176. Visual Communication and Social Advocacy. (4) (Formerly numbered Communication Studies M176.) Same as Labor and Workplace Studies M176.) Lecture, four hours. Examination of how communication reaches diverse audiences in communicating major social and political topics. Cartoons, posters, murals, and documentary photography have had powerful global impact. Survey of visual communications as features of modern mass media. Letter grading.

M177. Field Studies in Communication. (2 to 4) (Formerly numbered Communication Studies 177.) Lecture, four hours. Practicum lectures on selected topics in various community settings each week for each 2 units of credit. P/NP grading.

M178. Abortion, Death Penalty, and Gun Control: Argument and Persuasion. (4) (Formerly numbered Communication Studies 178.) Lecture, four hours. Examination of nature of propaganda, institutions, processes, and techniques arising from interaction of media institutions (print, film, broadcasting, and new technologies) and societal institutions (Congress, federal agencies, courts, Presidency, schools, churches, political action groups, advertisers, and audiences). P/NP or letter grading.

M179. Images of U.S. (4) (Formerly numbered Communication Studies 179.) Lecture, four hours. Examination of how First Amendment, case law, and federal and state statutes affect students’ and teachers’ abilities to speak on and off campus. Discussion of harassment and campus speech codes, campus demonstrations, student publications, student conduct regulations, and restrictions on displays of art and other symbolic forms of expression. P/NP or letter grading.

M180. Political Communication. (4) (Formerly numbered Communication Studies 180.) Lecture, four hours. Examination of how presidents use speech, images, and policies in presidential communication. Letter grading.

M181. Abortion, Death Penalty, and Gun Control: Argument and Persuasion. (4) (Formerly numbered Communication Studies 181.) Lecture, four hours. Examination of nature of propaganda, institutions, processes, and techniques arising from interaction of media institutions (print, film, broadcasting, and new technologies) and societal institutions (Congress, federal agencies, courts, Presidency, schools, churches, political action groups, advertisers, and audiences). P/NP or letter grading.

M182. Variable Topics in Communication and Media Institutions. (4) (Formerly numbered Communication Studies 182.) 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.

M183. Variable Topics in Critical Methods. (4) (Formerly numbered Communication Studies 183.) 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.

M184. Variable Topics in Interpersonal Communication. (4) (Formerly numbered Communication Studies 184.) 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.

M185. Field Studies in Communication. (2 to 4) (Formerly numbered Communication Studies 185.) Lecture, four hours. Practicum lectures on selected topics in various community settings each week for each 2 units of credit. P/NP grading.

M186. Field Studies in Communication. (2 to 4) (Formerly numbered Communication Studies 186.) Lecture, four hours. Practicum lectures on selected topics in communication. Reading, writing, discussion, and development of critical judgment. P/NP grading.

M187. Variable Topics in Critical Methods. (4) (Formerly numbered Communication Studies 187.) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

M188. Variable Topics in Communication and Media Institutions. (4) (Formerly numbered Communication Studies 188.) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

M189. Variable Topics in Communication and Media Institutions. (4) (Formerly numbered Communication Studies 189.) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

M190. Variable Topics in Communication and Media Institutions. (4) (Formerly numbered Communication Studies 190.) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

M191. Variable Topics in Communication and Media Institutions. (4) (Formerly numbered Communication Studies 191.) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

M192. Variable Topics in Communication and Media Institutions. (4) (Formerly numbered Communication Studies 192.) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

M193. Variable Topics in Communication and Media Institutions. (4) (Formerly numbered Communication Studies 193.) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

M194. Variable Topics in Communication and Media Institutions. (4) (Formerly numbered Communication Studies 194.) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.
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. CAPP Program Students. (6) (Formerly numbered Communication Studies M191DC) Same as History M191DC, Political Science M191DC, and Sociology M191DC) Seminar, three hours; laboratory, 24 hours. Limited to CAPP Program students. Seminars for undergraduate students to provide complementary placements. Study of variety of qualitative research methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of social 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 of research of faculty members or students. May be repeated for credit. P/NP grading.

195. Summer Internships. (4) (Formerly numbered Communication Studies 195) Tutorial, to be arranged. Internship in supervised setting in community agency 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 honors project to supervising faculty member. May be repeated for credit with topic change. P/NP or letter grading.

199. Directed Research or Senior Project in Communication Studies. (2 to 4) (Formerly numbered Communication Studies 199) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation, under guidance of faculty member. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered Communication Studies 375) 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
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Community Health Sciences
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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. Peiley, PhD (Fred H. Bloxey Professor of Population Policy)
Michael L. Preilp, DPA, MPH, CHES
Michael A. Rodriguez, MD, MPH
Michael G. Ross, MD, MPH
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Courtney S. Thomas, PhD

Lecturers
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Diana M. Bonta, DPH, RN
Elizabeth D’Amico, PhD
Ronald J. Halbert, MD
Rendell M. Slusser, MD, MS
Samuel J. Stratton, MD, MPH

Adjunct Associate Professors
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Linda Delp, MPH, PhD
Sheba M. George, PhD
Dena R. Herman, MPH, PhD, RD
Susan D. Kirby, MPH, DrPH
Paula A. Tavrow, PhD
Valentine M. Villa, PhD

Adjunct Assistant Professors
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Dana E. Hannes, MPH, PhD, RD
Lou lou H. Kobaishi, PhD
Cathy M. Lang, MPH, PhD
Natalie D. Muth, MD, MPH, RDN, FAAP
Elizabeth Yquez, MPH, EdD

Scope and Objectives
The Department of Community Health Sciences is concerned with health equity and well-being for all individuals and communities. To understand and foster optimal health among diverse communities, the mission of the department is to prepare students to be interdisciplinary global leaders who can effectively address persistent and emerging public health issues, conduct and disseminate innovative research on the social determinants of health, translate the findings for public health practice, and collaborate with communities in research and training.

The department offers 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 Health Professionals (MPH-HP) degree. A concurrent master’s program (Community Health Sciences MPH/Urban Planning MURP) is also offered.

Community Health Sciences

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

48. Nutrition and Food Studies: Principles and Practice. (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 all students. Students use observational research methods to create and answer questions about nutrition question in their cohort. P/NP or letter grading.

60. Intergroup Dialogue: Peer Dialogue. (2) Seminar, two hours. Discussion on issues of difference, conflict, and community to facilitate understanding between social/cultural groups. Student participation in semi-structured face-to-face meetings with students from other social identity groups to learn from each others’ perspectives, read and discuss relevant reading material, and explore their own and other groups’ experiences; discussion 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. (1) Seminar, one hour; 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. Leaflet and other practical skills will be application to nutrition, physical activity, positive body image, stress management, and other aspects of wellness as students participate in critical evaluation of popular diets, health behaviors, and other health habits. S/U grading.

105. Health Behavior in Social and Cultural Contexts. (4) Lecture, four hours. Historical and social determinants of health behaviors and determinants of population health and disparities, with emphasis on non-scientific social context and determinants of population health and princi- ples of planning interventions to protect and improve public health. Ways to define and measure health and illness, social construction of illness, social and be- havioral determinants of health, and health disparities, including socio-economic status, race/ethnicity, gender, and age. Social and behavioral theories of health-related behavior change, health promotion strategies and methods, and public policy. Case studies of evidence-based health promotion programs provided. Letter grading.

130. Nutrition and Health. (4) Lecture, three hours; laboratory, one hour. Preparation: one biology course, one chemistry course. Basic and clinical nutrition theory and practice for students in health sciences curricula. P/NP or letter grading.

131. Healthy Food Access in Los Angeles: History and Practice of Urban Agriculture. (4) Lecture, three hours; fieldwork, two hours. Exploration of history and recent regain of urban agriculture (gardening) in Los An- geles area. Exploration of how urban gardening is re- sponse to crises such as U.S. obesity epidemic and resulting health problems, and industrial agricultural in California and elsewhere in U.S. Exploration of how urban agriculture springs 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 administra- tion, 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; field- work, one hour. Introductory overview of mental and physical health issues of Asian Americans and Pacific Islanders; identification of gaps in health status indi- cators 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. Recom- mended requisite: course 60. Discussion on issues of difference, conflict, and community to facilitate under- standing between social/cultural groups. Peer facilit- ator training course to develop understanding of the- oretical and research foundations of intergroup dia- logue, peer-facilitated discussions involving relationship building (and coalition building) through thoughtful engagement around different social iden- tity issues. Study of variety of techniques, tools, and strategies to support students in their capacity to im- plement 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. Participation in weekly dialogues with students on specific identity theme and further development of knowledge and tech- niques in areas of group dynamics, conflict interven- tion, communication, cultural competence, and the 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 Move- ments, 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, investi- gation of historical trends and social movements, in- terpretation of current policy debates, and develop- ment of innovative interventions. Concurrently sched- uled with course CM470. P/NP or letter grading.


180. Field Studies in Cancer Control. (4) Lecture, two hours; discussion, one hour; fieldwork, four hours. Focus: Molecular and Environmental Biology 50. Designed for juniors/seniors. Opportunity for students to become involved in cancer control through classroom discussion, lectures, service in field, and guided research. Biology of cancer, its pre- vention, 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; community service or internship. Focus on processes of identity formation and emotional and social development. Emphasis on variability associated with gender, race, ethnicity, culture, and sexual orientation. Testing of real-life relevance of theory and research. P/NP or letter grading.

187A-187B. Introduction to Interventions for At- Risk Populations. (4–6) Lecture, three hours; commit- tee meetings/community service, two to six hours. Course 187A is requisite to 187B. Designed for ju- niors/seniors. Health and social needs/services from primarily public health perspective, drawing on re- lated 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 com- mittee members. Letter grading.

188A-188B. Special Courses in Community Health Sciences. (4–2) Lecture, two hours (188B) and three hours (188A). Examination of current topics or partic- ular subfields or experimental or temporary courses in community health sciences. Specific topic areas vary with instructor. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Focus on topics 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 and depart- mental honors programs. Designed as adjunct to upper-division lecture course. Individual study with
Graduate Courses

200. Global Health Problems. (4) Lecture, two hours; discussion, two hours. Overview of health pro-
file of world in the century. Global health problems and related issues have been in the center of
interest of Alma Ata goal of health for all by year 2000. Letter grading.

205. Immigrant Health. (4) Lecture, two hours; dis-
cussion, one hour. Limited to graduate students. Overview of health needs of immigrants in the United
States. Current perspectives on public health for docu-
mented and undocumented immigrants and refugees in U.S. Demographics, health status, behavioral risk
factors, and social determinants, health and human rights.

M212. Advanced Social Research Methods in Health. (4) Lecture, four hours; laboratory, two hours;
outside assignments, eight hours. Requisites: courses 211A, 211B, Biostatistics 100B. 406. Problems of
health survey design and data collection; measurement
issues in data analysis and interpretation; use of computer for analysis of large-scale survey data using
various statistical techniques. Letter grading.

211A. Program Planning, Research, and Evaluation in Community Health Sciences. (4-4) Lecture,
three hours; discussion, one hour; outside assignments, eight hours. Requisite: course 211A. Development,
planning, and administration of public health programs in community settings. Intro-
duction 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. 406. Problems of
health survey design and data collection; measurement
issues in data analysis and interpretation; use of computer for analysis of large-scale survey data using
various statistical techniques. Letter grading.

212. Advanced Social Research Methods in Health. (4) Lecture, four hours; laboratory, two hours;
outside assignments, eight hours. Requisites: courses 211A, 211B, Biostatistics 100B. 406. Problems of
health survey design and data collection; measurement
issues in data analysis and interpretation; use of computer for analysis of large-scale survey data using
various statistical techniques. Letter grading.

213. Research and Patient Health Education. (4) Lecture, three hours; discussion, two hours;
outside assignments, eight hours. Requisite: course 210. Application of concep-
tual, theoretical, and evaluation skills to community-
based health education research. Introduction to research programs. Letter grading.

214. Issues in Program Evaluation. (4) Discussion,
three hours; reading and research paper, one hour. Requisite: course 212. Advanced seminar that ex-
plains problems of planning and implementing evalu-
ation research in the context of local demonstration proj-
ects. Letter grading.

M216. Qualitative Research Methodology. (4) (Same as Anthropology M284A.) Seminar, three hours;
lab, one hour. Field techniques course in qualitative research methodology. Emphasis on using qualitative methods and techniques in re-
search 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 Epide-
miology 200B and 200C. Design, testing, field use, and administration of questionnaires 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. Analy-
lysis of quantitative data using range of multivariate techniques; simple, multiple, and logistic re-
gression. Analysis of theoretical problem using student quantitative data or public use data. Letter grading.

220. Racism and Public Health: Social Epidemi-
ologic Approaches. (4) Seminar, two hours; discus-
sion, one hour. Requisite: Biostatistics 100B. Integra-
tion of social epidemiologic methods and critical ap-
proaches to study of racial stratification and public health, with focus on (1) conceptualizing racism-re-
lated factors as social determinants of health, (2) building methodological competence for conducting research on racial as social determinant of health, and (3) developing critical self-consciousness to better understand how persons’ racial- or race-related perspectives and experiences might inform their research. Letter grading.

M222. Understanding Fertility: Theories and Meth-
ods. (4) (Same as Sociology M206L) Lecture, three
hours. 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 ap-
proaches to health promotion and health education at community level, and evaluation of health education programs. Letter grading.

211A-211B. Program Planning, Research, and
Evaluation in Community Health Sciences. (4-4) Lecture,
three hours; discussion, one hour; outside assignments, eight hours. Requisite: course 211A. Development,
planning, and administration of public health programs in community settings. Intro-
duction 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. 406. Problems of
health survey design and data collection; measurement
issues in data analysis and interpretation; use of computer for analysis of large-scale survey data using
various statistical techniques. Letter grading.

212. Advanced Social Research Methods in Health. (4) Lecture, four hours; laboratory, two hours;
outside assignments, eight hours. Requisites: courses 211A, 211B, Biostatistics 100B. 406. Problems of
health survey design and data collection; measurement
issues in data analysis and interpretation; use of computer for analysis of large-scale survey data using
various statistical techniques. Letter grading.

213. Research and Patient Health Education. (4) Lecture, three hours; discussion, two hours;
outside assignments, eight hours. Requisite: course 210. Application of concep-
tual, theoretical, and evaluation skills to community-
based health education research. Introduction to research programs. Letter grading.

214. Issues in Program Evaluation. (4) Discussion,
three hours; reading and research paper, one hour. Requisite: course 212. Advanced seminar that ex-
plains problems of planning and implementing evalu-
ation research in the context of local demonstration proj-
ects. Letter grading.

M216. Qualitative Research Methodology. (4) (Same as Anthropology M284A.) Seminar, three hours;
lab, one hour. Field techniques course in qualitative research methodology. Emphasis on using qualitative methods and techniques in re-
search 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 Epide-
miology 200B and 200C. Design, testing, field use, and administration of questionnaires 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. Analy-
lysis of quantitative data using range of multivariate techniques; simple, multiple, and logistic re-
gression. Analysis of theoretical problem using student quantitative data or public use data. Letter grading.

220. Racism and Public Health: Social Epidemi-
ologic Approaches. (4) Seminar, two hours; discus-
sion, one hour. Requisite: Biostatistics 100B. Integra-
tion of social epidemiologic methods and critical ap-
proaches to study of racial stratification and public health, with focus on (1) conceptualizing racism-re-
lated factors as social determinants of health, (2) building methodological competence for conducting research on racial as social determinant of health, and (3) developing critical self-consciousness to better understand how persons’ racial- or race-related perspectives and experiences might inform their research. Letter grading.

M222. Understanding Fertility: Theories and Meth-
ods. (4) (Same as Sociology M206L) Lecture, three
hours. 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 ap-
proaches to health promotion and health education at community level, and evaluation of health education programs. 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: courses 210 or prior social sciences courses. Health literacy, Internet use and health communication, communication materials using digital media that integrate practice and theory and includes websites, print materials, short videos, curricula, and training materials. Laboratory, 45 minutes; individual consultation, two hours. Comprehensive examination of technology and practice and promotion of health literacy, Internet use, and health communication. Letter grading.

293. Social and Behavioral Research in AIDS: Roundtable Discussion. (2 to 4) Discussion, two hours; individual consultation, two hours. Review and discussion of research programs directed toward identification of psychosocial, biobehavioral, environmental, and community factors related to prevention and control of AIDS/HIV. Letter grading.


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.

297. Teaching Apprentice Practicum. (1 to 4) Seminar, two to four hours; individual consultation, two to four hours. Preparation for diverse audiences using new media information technologies applied to website, social media, print media, video, and audio platforms. Letter grading.

298. Field Studies in Public Health. (4) Fieldwork, to be arranged. Field observation and studies in selected community organizations for health promotion or medical care. Students must file field placement and program training 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.

404. Community Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: courses 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 (blogging, Op-Eds), creating and evaluating effective communications using popular media. Letter grading.

542. Children with Special Healthcare Needs: Systems Perspective. (4) Same as Health Policy M442B. 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 contraceptive use, family planning, STIs, abortion, adolescents, HIV/AIDS, and refugees. Letter grading.

M273. 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 Communication. (4) Lecture, three hours; fieldwork, one hour. Requisite: course 210. Planning, creating, implementation, and evaluation of comprehensive health communication programs, including use of social marketing practices and strategies of audience research, marketing psychology, creative message development, branding, comprehensive media use for dissemination, transmedia. Competencies: conducting focus group interviews, creating and evaluating effective health campaigns, critical assessment of existing campaigns. Letter grading.

283. Evidence-Based Health Promotion Programs for Older Adults. (4) Seminar, three hours. Requisite: course 210. Graduate seminar intended to explore sociocultural determinants of health-related behaviors among older adults. 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 ill. Group differences (gender, ethnicity) in disorder and how it is socially constructed. Letter grading.

286. Doctoral Roundtable in Community Health Sciences. (Seminar, two hours. Designed for departmental support group for doctoral students who must complete required coursework or field experience. 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 (Seminar, two to four hours.ловь и оценка проектов) Letter grading.

288. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: courses 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 (blogging, Op-Eds), creating and evaluating effective communications using popular media. Letter grading.

290. Race, Class, Culture, and Aging. (4) Reading, four hours; discussion, one hour. Experience of aging for African American, Latino, and Asian elderly examines impact of race, class, culture on their families, communities, and nation. Exploration of cultural and structural influences on health and lived experiences of those elders. Letter grading.

422. 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 contraceptive use, family planning, STIs, abortion, adolescents, HIV/AIDS, and refugees. Letter grading.

M428. Child and Family Health Program Community Leadership Seminar. (2) Same as Health Policy M428. Seminar, two 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 such as 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 experiences, and underscore community leadership concepts demonstrated by those CBOs. S/U or letter grading.

M430. Building Advocacy Skills: Reproductive Health Focus. (4) Same as Health Policy M434. Seminar, three hours. Recommended requisite: one prior health policy course such as Community Health Policy M286. Designed for School of Public Health graduate and doctoral students. Skills-building course to develop competency in assessing, developing, and implementing advocacy strategies for reproductive health issues. Introduction to legislative and community advocacy initiatives and to policymaking process, including policy analysis and development of resources necessary for legislative advocacy. Includes sociolegal goals and objectives, development of advocacy plan, coalition building, organizational capacity building, media relations, and message development for various audiences. Students learn about range of forms and current reproductive health advocacy campaigns. Letter grading.

431. Foundations of Reproductive Health. (4) Lecture, three hours. Limited to graduate students. Understanding reproductive technologies and practices is critical for public health students interested in designing programs to address problems such as unwanted pregnancy, family planning, sexually transmitted diseases, and reproductive health services. Examination of foundational of reproductive health from medical perspective, with particular attention to implications for public health programs, health services, and policy. Topics include: physiology of male and female reproductive health tracts, methods of birth control, medical and surgical abortion, infertility, maternal care, and sexual violence and trauma. S/U or letter grading.

432. Perinatal Healthcare: Principles, Programs, and Policies. (4) Lecture, three hours; discussion, one hour. Comprehensive examination of perinatal healthcare, including perinatal epidemiology, outcome measures, public programs, controversies surrounding new technology, regionalization, organization of services at federal, state, and county levels, and medical/legal issues. S/U or letter grading.

434A. Maternal and Child Health in Developing Areas. (4) Lecture, four hours. Requisite: course 231. Major health problems of mothers and children in developing areas, stressing causation, management, and prevention. Participation in relation to adapting programs to limited resources in cross-cultural milieu. S/U or letter grading.

435. Seminar: Advanced Issues in Women’s Health. (4) Seminar, three hours; Preparation: at least one prior women’s health class. Two biostatistics courses, one research methods course. Provides more advanced and in-depth understanding of ways in which scientists “know” and considerations of one’s place in scientific discourse. Examination of series of case studies as starting point for discussion. Letter grading.

M436A-M436B. Child Health, Programs, and Policies. (4) Same as Health Policy M442B. Lecture, four hours. Requisite: Health Policy 100. Course M436A is requisite to M436B. 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.

(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; staffing; evaluation design; and 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 of appropriate methods, data gathering and handling, and analysis and presentation. Letter grading.

446. Nutrition Education and Training: Third World Considerations
(4) Lecture, two hours; discussion, one hour; 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, four hours. Recommended preparation: background in Islamic or Middle Eastern studies. Requisite: course 200 or 231 or 434A. Current health issues and problems of countries in Middle East and implications for socioeconomic development. Review of economic, demographic, and cultural variation of region to provide background for discussion of trends and patterns of health and nutritional status of population in area. Letter grading.

448. Nutrition Policies and Programs: Domestic and International Perspectives
(4) Lecture, two hours; discussion, two hours; field visits. Preparation: one nutrition sciences course and/or nutrition program experience. Nutrition programs and policies in U.S. and developing countries compared and contrasted. Analysis of role of major international, 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 course 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 practices 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.

512. 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.

(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.

(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 ideas, 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.

(4) Lecture, three hours; fieldwork, four to six hours. Preparation: courses 210, 211A, 211B, and 2121A. Theory and practice of community organizations, including models and strategies of community organization and their application to health problems and health policy. Particular attention to use of community organization for health promotion and to change public policy. 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. Use 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.

COMPARATIVE LITERATURE
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Scope and Objectives
Standing at the forefront of innovative work in literary, theoretical, and cultural studies, comparative literature is one of the most exciting fields in the humanities. As a discipline it requires exceptional linguistic ability, theoretical knowledge, and high intellectual caliber. The UCLA program offers students the opportunity to work with faculty members in any of the language and literature departments as well as

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with the Department of Comparative Literature faculty.

The department, which is interdisciplinary and multilingual in scope, is committed to continuing its pioneering work in defining new literary paradigms and fostering new directions for exploration in literary studies, including such areas as the relationship between translation and transnationalism, literary theory and emerging media, the future of national literatures in an era of globalization, gender and sexuality studies, East-West cultural encounters, human rights and global censorship, postcolonial and diaspora studies, and experimental approaches to literature and culture.

Focusing on elements that preoccupy literary studies in general, such as genre, period, theme, language, and theory, comparative literature also extends its range to questions that concern other disciplines such as anthropology, art history, film and media studies, gender studies, history, and philosophy. Courses are designed to provide students with both a historical and theoretical understanding of literary and cultural forms, themes, and movements. Given its focus on interdisciplinary research and pedagogy, comparative literature is a natural site around which to explore the boundaries of modern language and literary studies.

Undergraduate Study

Comparative Literature BA

Learning Outcomes

The Comparative Literature major has the following learning outcomes:

- Ability to analyze literary texts
- Ability to situate literary texts in their aesthetic, historical, and cultural contexts
- Knowledge of different methods of analyzing literature
- Understanding of the importance of reading texts in their cultural context
- Ability to read literary texts in two languages
- Ability to write clearly-written, structured analytic essays

Preparation for the Major

Required: (1) Two courses from the Comparative Literature 1, 2, or 4 series (with approval of the director of undergraduate studies, a comparable and appropriate lower-division course in another department may be substituted for one of the courses), (2) completion of the College Writing requirement, and (3) literary proficiency in at least one language other than English, to be demonstrated by admission into one upper-division literature course in the original language.

Transfer Students

Transfer applicants to the Comparative Literature major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one English composition course, two literature survey courses, at least one of which must be world literature, and the equivalent of at least one year of foreign language.

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

The Major

Required: Ten courses, of which (1) five must be from comparative literature offerings, including Comparative Literature 100 and at least four additional comparative literature courses selected from M101 through 197, (2) three upper-division literature courses using original language texts in the primary language area, and (3) two upper-division literature courses using original language texts in the secondary language area (students may petition the undergraduate advisor to take up to 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 advisor to enter the program.

Honors candidates must complete all requirements for the major and an honors research paper (in addition to regular course requirements) in two of the four required upper-division comparative literature courses. Candidates must also complete a fourth course in the primary literature area and Comparative Literature 198 with a core faculty member in which they write a senior honors paper of approximately 25 pages.

Comparative Literature Minor

The Comparative Literature minor offers students interested in literature and the humanities the opportunity to gain insight into the critical problems and theories addressed by comparative literature and to apply that knowledge in literature and comparative literature courses.

To enter the minor students must have fulfilled the College Writing requirement, have completed 40 units with an overall grade-point average of 2.0 or better, have taken at least one year or equivalent of a language other than English, and file a petition with either the faculty or staff undergraduate advisor, 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 Iliad or Odyssey, Greek tragedies, portions of Bible, Virgil, Petronius, St. Augustine, and others such as Gilgamesh or Tristan and Isolde. P/NP or letter grading.

1B. World Literature: Middle Ages to 17th Century. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 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 2DW or 4DW. Study of major literary texts usually overlooked in courses that focus on only one canon of Western literature. Texts from at least three of following areas read in any given term: African, Caribbean, East Asian, Latin American, and Middle Eastern literature. P/NP or letter grading.

1E. Social Media and Storytelling: Comparing Cultures. (5) Lecture, two hours; discussion, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of social media as platform for storytelling, with core focus on three distinct cultures: U.S., China, and Russia. History, form, and various functions of social media. Examination of how we tell stories about ourselves and how we interpret digital
narratives we see, hear, or read from organizations near and far. Analysis of networked narratives encountered online. P/NP or letter grading.

2AW. Survey of Literature: Antiquity to Middle Ages. (5) Lecture, two hours; discussion, two hours. Enforced 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 4AW. Study of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts include works and authors such as Odyssey, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, Marie de France, Tristan and Isolde, 1001 Nights, and Vut. Satisfies Writing II requirement. Letter grading.

2BW. Survey of Literature: Middle Ages to 17th Century. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1D 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 requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1C or 4CW. Study of Age of Enlightenment to 20th century, with emphasis on literary analysis and expository writing. Texts include works by authors such as Chaucer, Dante, Cervantes, Marguerite de Navarre, Shakespeare, Calderón, Molière, and Racine. Satisfies Writing II requirement. Letter grading.

2DW. Survey of Literature: Great Books from World at Large. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1D or 4DW. Study of major literary texts usually overlooked in courses that focus only on canon of Western literature, with emphasis on literary analysis and expository writing. Texts 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.

4AW. Literature and Writing: Antiquity to Middle Ages. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1A or 2AW. Study and discussion of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts include works and authors such as Iliad, Odyssey, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, or Marie de France. Satisfies Writing II requirement. Letter grading.

4BW. Literature and Writing: Middle Ages to 17th Century. (5) Discussion, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1B or 2BW. Study and discussion of selected texts from Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts may include works and authors such as Chaucer, Dante’s Divine Comedy, Cervantes’ Don Quixote, Shakespeare, 1001 Nights, Christine de Pizan, Petronius, Molière, and Racine. Satisfies Writing II requirement. Letter grading.

4CW. Literature and Writing: Age of Enlightenment to 20th Century. (5) Discussion, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1C or 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 and authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, M, Shelley, Flaubert, Ibsen, Strindberg, Dostoevsky, Gogol, Kafka, Joyce, Beckett, L. Hughes, and Garcia Márquez. Satisfies Writing II requirement. Letter grading.

4DW. Literature and Writing: Great Books from World at Large. (5) Discussion, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1D or 2DW. Study and discussion of major literary texts usually overlooked in courses that focus only on canon of Western literature, with emphasis on literary analysis and expository writing. Texts 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.

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, and determine if humanities will and will not cater in future. P/NP or letter grading.

19. Flat Lex Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty member whose expertise and illumination are collaboratively determined. P/NP 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 and cognitive potential to improve human behavior and impact our sensor and cognitive. P/NP grading.

89HC. Honors Contracts. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Seminar, one hour. Preparation: satisfaction of Entry-Level Writing and College Writing requirements. Research projects concerning current topics in literature. May be concurrently scheduled with course C205. Undergraduate students read all works in translation. P/NP or letter grading.

108. Archetypal Heroes in Literature. (4) Seminar, three hours. Designed for juniors/seniors. Survey and analysis of archetypal function and archetypal heroes as Achilles, Ulysses, Prometheus, Odysseus, and Orpheus in literature from antiquity to modern period. All works read in original languages. P/NP or letter grading.

109. Autobiography in Francophone and Anglophone Worlds. (5) Seminar, three hours. Designed for juniors/seniors. Focus on number of narratives that use the autobiographical mode to situate self in relation to history of nations and biography of family members. Introduction to theories of subjectivity and of genre of self-writing in France, Africa, and Caribbean. Examination of projective self-autobiographies of Asian Diaspora, and Jamaica Kincaid to better understand limits of genre. Texts represent different limit cases of autobiography and can be read as biographies, autobiographies, and auto/biographies. 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.

M110. Thousand and One Nights and Layla Wa- liya. (Same as Arabic M110.) Lecture, four hours. Limited to 20 students. 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. (3) Seminar, three hours. Preparation: satisfaction of Entry-Level Writing and College Writing requirements. Requisite: Two courses from Compara- tive Literature 1 or 2 series or English 10 series or Spanish 60 series. Recommended: course 100. Exploration of history of comparative literature discipline and variety of central methodological past and present debates concerning nature of discipline. Introduction to several key theoretical texts from early 20th century to present, addressing these and other related questions: what does it mean to read compar- atively? How do we decide what constitutes comparative literature across existing national and linguistic borders? What are criteria for conducting such comparative readings? Is comparative reading more concerned with finding similarities or differences? P/NP or letter grading.
M119. Al-Andalus: Literature of Islamic Spain. (4) (Same as Arabic M155.) Lecture, three hours. Study of literature of Islamic Spain to learn about interaction of Arabic and Western and Arabic and Jewish cultures and to recognize Islamic culture as vital force in European life and letters. P/NP or letter grading.

M120. Women and Literature in Southeastern Europe. (4) (Same as Central and East European Studies M120.) Seminar, three hours. Examination of changing roles of women in Balkan countries (Albania, Bosnia-Herzegovina, 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 agrarian culture to industrial economy and from communism to post-communism (in former communist countries). Sensitizes students to complexity of issues in women's roles and helps them better understand multiplicity of causes of present situation. Interdisciplinary study, drawing on sociological, women's studies, articles, and short, long, by authors written for analysis. Distilled and defining of topics covered in articles, different positions taken by authors, and ways in which aspects of these realities are rendered in fictional form by women writers. P/NP or letter grading.

C122. Renaissance Drama. (4) Lecture, three hours. Designed for upper-division literature majors. Broad introduction to subject matter and types of plays in Renaissance, with consideration of historical and literary context. Readings include works of such dramatists as Tasso, Machiavelli, Lope de Vega, Racine, Jonson, Shakespeare. May be concurrently scheduled with course C222. Undergraduate students read all works in translation. P/NP or letter grading.

M123. Oral Literature and Performance of Arab World. (4) (Same as Arabic M123.) Lecture, three hours. Knowledge of Arabic not required. Introduction to study of oral traditions of troubadours, storytellers, oral poets, and performers in Arab-speaking Middle East. P/NP or letter grading.

M148. Contemporary Arab Film and Song. (4) (Same as Russian M132.) Lecture, three hours. History, form, and function of various media. Gronded in political and commercial experience of eastern Europe, comparative investigation of media technologies, today's burgeoning markets, and yesterday's tragic abuses. Development of media form(s) and content across various times, places, and cultures, with special attention to Slavic phenomena. Letter grading.

C152. Symbolism and Decadence. (5) Seminar, four hours. Designed for upper-division literature majors. Study of symbolist and decadent movements in 19th- and 20th-century English and French poetry and prose, including authors such as Baudelaire, Verlaine, Mallarmé, Wilde, Yeats, and Eliot. May be concurrently scheduled with course C252. Undergraduate students read all French texts in translation. P/NP or letter grading.

C153. Post-Symbolist Poetry and Poetics. (5) Seminar, four hours. Designed for upper-division literature majors. Study of specific poets and poems related to them in 20th-century contexts. Texts may include poets such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valéry, R.M. Rilke, Gunnar Ekelöf, and Wallace Stevens. May be concurrently scheduled with course C253. Undergraduate students may read all works in translation. P/NP or letter grading.


C156. Fantastic Fictions. (4) Seminar, three hours. Designed for upper-division literature majors. Migration from fantastic fictions of 18th- and 19th-century works to new set of African authors and attempt to distinguish similarities or differences they may have with major authors such as Achebe, Ngugi, Amath, Soyinka, etc. P/NP or letter grading.

C160. Literature and Visual Arts. (4) Lecture, three hours. Designed for juniors/seniors. Knowledge of art history valuable but not required. Assuming that literature and visual arts are in some degree expressions of culture and/or crises of eras, study of relationships between writers and movements in painting, architecture, and sculpture. Interdisciplinary investigation of similarities and differences between plastic and verbal arts in comparative study. May be repeated for credit with instructor and/or topic change. May be concurrently scheduled with course C256. Undergraduate students read all works in translation. P/NP or letter grading.

C161. Fiction and History. (4) Seminar, three hours. Designed for upper-division literature majors. Analysis of use of historical events, situations, and characters in literary works of Renaissance and/or modern period. Texts and individual assignments range from Renaissance historical narratives (Italian humanists, Machiavelli) to 19th- and 20th-century novels by authors such as Stendhal, Verdi, Tomasi di Lampedusa, Carter Tovsky, and Kundera. Use of fictional methods by historians. Emphasis on how aesthetic, ideological, and political factors influence authors' choice and use of historical material. May be concurrently scheduled with course C261. P/NP or letter grading.

M162. Israel Seen through Its Literature. (4) (Same as Jewish Studies M162.) Lecture, three hours. Attempt to impart profound understanding of Israel seen through its literature. Examination of variety of literary texts—stories, novels, and poems—and reading of them in context of their historical back- grounds, P/NP or letter grading.

C163. Crisis of Consciousness in Modern Literature. (4) Seminar, three hours. Designed for upper-division literature majors. Study of modern European and American works that are concerned both in subject matter and artistic methods with growing self-consciousness of society. May be concurrently scheduled with course C261. Undergraduate students read all works in translation. P/NP or letter grading.

C164. Modern European Novel. (5) Seminar, three hours. Designed for upper-division literature majors. Study of modern European novel's development from 1890 to 1945, with focus on specific period or region. Includes modernist, realist, and American works that are concerned both in subject matter and artistic methods with growing self-consciousness of society. May be concurrently scheduled with course C263. Undergraduate students may read all works in translation. P/NP or letter grading.

M165. Holocaust in Literature. (4) (Same as Jewish Studies M187.) Lecture, three hours. Investigation of how Holocaust informs variety of literary and cinematic works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

M166. Modern Jewish Literature in English: Diaspora Literature. (4) (Same as Jewish Studies M151A) Lecture, three hours. Study of literary responses of Jews to modernity, its challenges, and threats. Readings in texts originally written in English concerning those who emigrated from Hebrew, Russian, French, and Italian. Analysis of formal aspects of each work. P/NP or letter grading.

M167. Modern Arabic Literature in English. (4) (Same as Arabic M123.) Lecture, three hours. Designed for upper-division literature majors. Topics may include constructions of others in modern Arab culture; East-West debate; memory, trauma, and mourning; violence, narrative, and ethics; globalization, oil, and cultural insurgency; Arab culture in trans- national context or questions of reception, exoticism, translation, and marketing. Genres may include prison narratives; memoirs by women and/or by refugees and exiles; 19th- and 20th-century travel narratives; Arabic romantic poetry; literature of pre-1948; rage of Arab novel. Areas may range from ge- neral look at Arab world to narrow focus on Maghreb or one country such as Algeria, Palestine, Iraq, Lebanon, or Egypt. May also be organized around Arab literatures written in one specific language, namely Arabic.


M171. Chinese Immigrant Literature and Film. (4) (Same as Asian American Studies M130B and Chinese M153.) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. In-depth look at Chinese immigration experience by reading literature and watching films. Theories of diaspora, gender, and race to inform thinking and discussion of relevant issues. P/NP or letter grading.

C172. Postmodern Novel. (4) Seminar, three hours. Designed for upper-division literature majors. Study of postmodern novel as it developed out of modernism. Postmodernism defined in three different ways—philosophically, scientifically, and economically. Emphasis on relationship of recent novels to theories of structuralism and poststructuralism. Readings include authors such as Borges, Beckett, Nabokov, Pynchon, Fuentes, Grass, Böll, and Calvino. Concurrently scheduled with course CM272. Undergraduate students read all works in translation. P/NP or letter grading.

M175. Race, Gender, Class. (5) (Same as Asian American Studies M165.) 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 of experience. Students read and discuss primary populations and surveys in U.S. Examination of these issues from comparative perspectives. P/NP or letter grading.


C178. India Ink: Literature and Culture of Modern South Asia. (4) 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. Anantham Murty, 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 imperial and modern 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 Britain 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. (5) (Formerly C179SL) 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 over movements. In living animals, sentence or consciousness exists to integrate often complex input and decide on course of action. Similarly, ownership and agency are inseparably asserted by nervous systems that control our movements. Movements play vital part in constructing psychosocial environment that permeates and surrounds us. Exploration of how humans and animals move and how movement, as well as limitations of mobility, relate to personal and community identity. P/NP or letter grading.

180. Variable Topics: Medical Humanities in Comparative Contexts. (4) Seminar, three hours. Designed for juniors/seniors. Study and discussion of integrated issues and approaches in literary theory, especially in relation to other modes of discourse such as history, philosophy, psychology, linguistics, anthropology. Development of culminating project required. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

181. Individual Studies in Comparative Literature. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Intensive individual study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject required for credit. Individual contract required. P/NP or letter grading.

182. 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 requirements. Opportunity for undergraduate students 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 about others? How do we understand something foreign to us by immersing ourselves in it or by standing apart? Does ability to understand something foreign imply taking universal standpoint? Can we make judgments about beliefs other than our own? Questions of cultural interpretation have long history in both Western and non-Western cultures. Discussion of history of questions about 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 beyond scope of lecture course. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquium 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 specific term. May be repeated for credit with topic change. P/NP or letter grading.

197. Individual Studies in Comparative Literature. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Intensive individual study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject required for credit. Individual contract required. P/NP or letter grading.

198. Honors Research in Comparative Literature. (2 to 4) Tutorial, three hours. Limited to senior comparative literature honors students. Development and completion of honors thesis or comprehensive project on comparative topic selected by student and written under supervision of core faculty member. Student expected to meet regularly with supervisor throughout term. No more than one course may be used to fulfill four-course requirement for Comparative Literature majors. May be repeated once for maximum of 8 units. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Comparative Literature. (2 to 4) Tutorial, three hours. Requires: course 100. 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 consent of chair. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Theory of Comparative Literature. (6) Seminar, three hours. Study of theory of literature, with emphasis on methodology of theoretical problems. S/U or letter grading.

200B. Methodology of Comparative Literature. (6) Seminar, three hours. Requisites: 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 work of 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 ancient foreign language. Literary masterpieces, both dramatic and non-dramatic, selected to demonstrate varieties of comic expression. May be concurrently scheduled with course C105. 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, Cepidus, and Orpheus in literature from antiquity to modern period. S/U or letter grading.

210. Comparative Studies in Autobiography. (5) Seminar, three hours. Limited to graduate students. Introduction to theories of autobiography, objectivity and to genre of autobiography in literatures in French and English and across centuries. Topics include early modern approaches to self-writing, Rousseauian theories of emergence of autobiographical self, racial autobiography, and more. Authors may include Georges Gusdorf, Philippe Lejeune, Pari Man, Jacques Derrida, Helene Cixous, Michel Foucault, Pierre Bourdieu, and Toril Moi. 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 of bilingual text. May be concurrently scheduled with course C212. Graduate students required to prepare papers based on texts read in original languages and to meet as group one additional hour each week. S/U or letter grading.

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 defined literatures of Maghreb. Multicultural and/or competing contexts of language and gender politics, religious and cultural formations, Pan-Arabism and post-colonial nationhood, Third-Worldism and economic development, and their predilection for comic expression, comic transgression, comic expression, comic transgression, comic transgression. Limited to juniors and seniors. S/U grading.

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.
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 relations between writing and photography in American and European contexts. Study rests on premise that photographic en- ters public domain framed by writing and discourse and that this fusion 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. Great works of Arab literature by such figures as Rabindranath Tagore, Satyajit Ray, Faiz Ahmed Faiz, and U.R. Anantham Murthy, including novels, short stories, poetry, films, music, and works in cultural criticism and historical scholarship. Central and defining issue for 20th-century Indian culture is experience of British colonial rule and massive cultural and material changes that accompanied it. Exploration of manner in which literature and culture have developed in interaction with powerful social forces, such as struggle for national independence from Britain under leaders like Mahatma Gandhi and expansion of Indian diaspora. Concurrently scheduled with course C178. S/U grading.

278. Subaltern Studies: Colonial Histories and Cul- tural Critique. (5) Seminar, three hours. Examination of certain links between practice of cultural criticism and historicizations in historiographical and post- colonial 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 interdisciplinarity is produced by dialogue of history and literary and cultural theory? Attention to literary texts to practice such interdisci- plinary criticism. Nature of modernity in colonial set- tings. What is nature of culture in colonial society? What kind of modernization does it seek? What is relation- ship of modern metropolitan bourgeoisie to in- digenous one? S/U or letter grading.

280. Latin American Literature in Comparative Contexts. (4) Seminar, three hours. Preparation: reading knowledge of one foreign language. In-depth study of one topic of Latin American literature in com- parative context. May be repeated for credit. S/U or letter grading.

284. Theories of Translation. (4) Seminar, three hours. Examination of various approaches to concept of translation and to its significance for literary studies. Readings include 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. Postgraduate students with proper language preparation. Intro- duction to principles of literary translation heuristi- cally, that is, on basis of texts participating students translate, and presentation of student study. 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 lan- guage. Designed for graduate social sciences stu- dents. Techniques students need to render scholarly texts in their fields from language they use in their research in English and to advance their knowledge of language stage where they can use it more effect- ively, in terms of aspects of translation. S/U or letter grading as well as take advantage of translation techniques they have learned. S/U or letter grading.

287. Reading across Culture. (5) Seminar, three hours. How is it 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 ability to understand something foreign to us affect our 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, the 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, and its place within critical output produced by Arab thinkers and artists in aftermath of 1967. Course addresses and re- structures this glaring imbalance by considering new cultural material—literary, critical, philosophical, art-istic, and journalistic—produced before and after al-Nahda but mostly before and after 1967 and fosters insightful approaches to unlikely coexistence in Arab contemporaneity of ever-deepening and generalized crisis and of steady and consolidated development (if not effervescence) of cultural and artistic production. S/U or letter grading.

289. Theory of Film and Literature. (6) Seminar, three hours; film screening, two hours. Study of redifinition 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.


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 theoret- ical accounts. S/U or letter grading.


COMPUTATIONAL AND SYSTEMS BIOLOGY

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 comple- tion 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 synergy for all concentrations is integrative systems, information, and computational sys- tems modeling sciences in biology. The focus is primarily quantitative, as mastery of advanced quantitative skills is essential for multi-disciplinary understanding. Each concentration emphasizes different systems or modalities, and modeling or other computational ap- proaches. For students interested in broad op- tions for postgraduate studies in life sciences and related areas, including medicine, the systems biology concentration covers the widest spectrum of quantitative systems studies at all levels. The other concentrations are more focused. For example, bioinformatics is more focused on computational aspects of genetics and biology at molecular and cellular levels. Students normally select one, but because the concentrations have substantial methodologic overlap, well-justified combinations are also possible.

The bioinformatics concentration is designed for students interested in computational dis- covery and management of biological data, primarily genomic, proteomic, or metabolomic data. Bioinformatics emphasizes computa- tional, statistical, and other mathematical ap- proaches for mining, modeling, and analyzing high-throughput biological data, and the inher- ent structure of biological information. Exam-
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 neurosystems concentration is designed for students interested primarily in the nervous system, or quantitative neurophysiology, with emphasis on neural system networks that control behavior at molecular, cellular, and whole-organism levels, 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 physical or computer science and biology concentration) using dynamical systems modeling, of systems biology (often called the new physicochemical). The curriculum imparts an understanding and integrative principles in biology or 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 neurosystems concentration is designed for students interested primarily in the nervous system, or quantitative neurophysiology, with emphasis on neural system networks that control behavior at molecular, cellular, and whole-organism levels, 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 picture of living organisms. However, the methodologies include single-scale or multiscale modeling for enhancing understanding of regulatory biomechanisms at all levels—molecular, cellular, organ, and/or whole-organism levels—and are prevalent in population and ecosystem studies, as well as systems-level problems in medicine and pharmacology.

**Computational and Systems Biology BS**

**Capstone Major**

**Learning Outcomes**

The Computational and Systems Biology major has the following learning outcomes:

- 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 premajors at the time of application are automatically admitted. Current UCLA students need to file a request to the Undergraduate Advising Office in 2329 Life Sciences Building.

All students are identified as premajors until they satisfy the preparation for the major by achieving a minimum 2.7 grade-point average (GPA) in all premajor mathematics courses, achieving a minimum 2.7 GPA and a minimum grade of C in all premajor courses, and 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 113A, 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, M102 (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.

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.

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.

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 31 or 31B. Survey course designed to introduce students to computational and systems modeling and computation in biology and medicine, providing motivation, flavor, culture, and cutting-edge contributions in computational biosciences and aiming for more informed basis for focused studies by students 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. Requisites: course M184, Mathematics 32B, 33A, 33B, Life Sciences 4. Introduction to interdisciplinary laboratory research methods and research opportunities in computational and systems biology to prepare and initiate students for active engagement in research. Presentation of potential projects by faculty 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 Bioengineering and Evolutionary Biology M178.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic biosystems modeling and computer simulation methods for studying biological processes 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.

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.


**COMPUTER SCIENCE**

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**Computer Science**

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**Scope and Objectives**

Computer science is concerned with the design, modeling, analysis, and applications of computer systems. Its study at UCLA provides education at the undergraduate and graduate levels necessary to understand, design, implement, and use the software and hardware of digital computers and digital systems. The programs offer comprehensive and integrated studies of subjects in computer system architecture, computer networks, distributed computer systems, programming languages and software systems, information and data management, artificial intelligence, computer science theory, computational systems biology and bioinformatics, and computer vision and graphics.

The undergraduate and graduate studies and research projects in the Department of Computer Science are supported by significant computing resources. In addition to the departmental computing facility, there are over a dozen research laboratories specializing in areas such as distributed systems, multimedia computer communications, distributed sensor networks, VLSI systems, VLSI CAD, embedded and reconfigurable systems, computer graphics, bioinformatics, and artificial intelligence.
gence. 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 specialities 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 107; 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 specialities 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 upper-division computer science courses or 12 units of courses selected from an approved list available in the Office of Academic and Student Affairs; and 12 units of technical breadth courses selected from an approved list available in the Office of Academic and Student Affairs.

Students must take at least one course from Computer Science 130 or 132. Computer Science 130 or 152B may be applied as an elective 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
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/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 123, Molecular, Cell, and Developmental Biology 144, 187AL, Physical and Biological 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. Culminating paper required. May be repeated for credit. Individual contract required. Letter grading.

**Computer Science**

**Lower-Division Courses**

1. Freshman Computer Science Seminar. (1) Seminar, one hour; discussion, one hour. Introduction to department resources and principal topics and key ideas in computer science and computer engineering. Assignments given to bolster independent study and writing skills. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


31. Introduction to Computer Science I. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to computer science via theory, applications, and programming. Basic data types, operators and control structures. Input/output. Procedural and data abstraction. Introduction to object-oriented software development. Abstract data type definition and use. Overloading, inheritance, polymorphism. Object-oriented view of data structures: stacks, queues, graphs, trees, arrays, strings, and lists; control structures, including conditions and loops; and functional decomposition. Letter grading.

32. Introduction to Computer Science II. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 31, Object-oriented software development. Abstract data type definition and use. Overloading, inheritance, polymorphism. Object-oriented view of data structures: stacks, queues, graphs, trees, arrays, strings, and lists; control structures, including conditions and loops; and functional decomposition. Abstract data type definition and use. Overloading, inheritance, polymorphism. Object-oriented view of data structures: stacks, queues, graphs, trees, arrays, strings, and lists; control structures, including conditions and loops; and functional decomposition. Abstract data type definition and use. Overloading, inheritance, polymorphism. Object-oriented view of data structures: stacks, queues, graphs, trees, arrays, strings, and lists; control structures, including conditions and loops; and functional decomposition.

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.

M51A. Logic Design of Digital Systems. (4) (Same as Electrical Engineering 131A.) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to digital systems. Specification and implementation of combinational and sequential circuits. Design of digital logic using CAD tools. Logisim, and associated algorithms. Searching and sorting. Case studies and exercises from computer science applications. Letter grading.

117. Computer Networks: Physical Layer. (4) Formerly numbered CM122. Lecture, two hours; discussion, two hours; laboratory, two hours; outside study, six hours. Enforced requisite: courses 211 and 121. One course from Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for juniors/seniors. Probability and stochastic processes as applied in computer science. Basic methodological tools include random variables, conditional probability, expectation and higher moments, Bayes theorem, Markov chains. Applications include probabilistic algorithms, theoretical reasoning, analysis of algorithms and data structures, reliability, communication protocol and queueing models. Letter grading.

118. Computer Network Fundamentals. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 117. Designed for juniors/seniors. Introduction to design and performance evaluation of computer networks, including such topics as what protocols are, layered network architecture, internet protocol architecture, network applications, transport protocols, routing algorithms and protocols, internetworking, congestion control, and link layer protocols including Ethernet and wireless channels. Letter grading.

M119. Fundamentals of Embedded Networked Systems. (4) (Same as Electrical and Computer Engineering 119.) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to digital systems. Specification and implementation of combinational and sequential circuits. Design of digital logic using CAD tools. Logisim, and associated algorithms. Searching and sorting. Case studies and exercises from computer science applications. Letter grading.

CM121. Introduction to Bioinformatics. (4) (Same as Chemistry CM160A.) Lecture, four hours; discussion, two hours. Requisites: course 32 or Program in Computing 10C with grade of C- or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Designed for students from biological sciences and medical school. Inquiry into the unique capabilities and limitations of real-world operating systems. Letter grading.

CM122. Algorithms in Bioinformatics. (4) (Same as Chemistry CM160B.) Lecture, four hours; discussion, two hours. Requisites: course 32 or Program in Computing 10C with grade of C- or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Course CM121 is not required to CM122. Designed for engineering students as well as students from biological sciences and medical school. Developing practical algorithms for solving computational problems such as analysis of biological data, with focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques. Computing intrinsically those from statistics and computer science. Concurrently scheduled with course CM222. Letter grading.

CM124. Computational Genetics. (4) Formerly numbered CM124. 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, 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 structure for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques from statistics and computer science. Concurrently scheduled with course CM224. Letter grading.

130. Software Engineering. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisites: course 111, 131. Recommended requisite: Engineering 183EW or 185EW, Structured programming, program specification, program proving, modularity, abstract data types, composite design, software tools, software control systems, program testing, team programming. Letter grading.

131. Programming Languages. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 111. Designed for 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 structure for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques from statistics and computer science. Concurrently scheduled with course CM224. Letter grading.

132. Compiler Construction. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 131. Compiler structure and symbolic syntax analysis; semantic analysis and code generation; theory of parsing. Letter grading.

133. Parallel and Distributed Computing. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 118. Introduction to basic concepts of information security necessary for students to understand risks and mitigations associated with protection of systems and data. Topics include security models and architectures, security threats and risk analysis, access control and authorization/authentication, cryptography, network security, secure application design, and ethics and law. Letter grading.

C137A. Prototyping Programming Languages. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 118. Introduction to basic concepts of information security necessary for students to understand risks and mitigations associated with protection of systems and data. Topics include security models and architectures, security threats and risk analysis, access control and authorization/authentication, cryptography, network security, secure application design, and ethics and law. 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 imple- menting new abstractions, both as stand-alone lan- guages and as libraries in existing languages. Con-currently scheduled with course C237A. Letter grading.

C137B. Programming Language Design, (4) Sem- inar, four hours; outside study, eight hours. Enforced requisite: course C137A. Study of various program- ming language designs, from computing history and research and development of languages, and implementation problems of software systems that are bloated, buggy, and diffi- cult to maintain and extend despite trend in com- puting toward ever higher levels of abstraction for programming. Hands-on experience designing, pro- totyping, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course C237B. Letter grading.


144. Web Applications, (4) Lecture, four hours; dis- cussion, 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. 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 access control, design and implementation of complex Web services and distributed transactions. Letter grading.

145. Introduction to Data Mining, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 180. Introductory survey of data mining (process of automatic discovery of patterns, changes, associations, and anomalies in massive databases), knowledge engineering, and wide spectrum of data mining application areas such as bioinformatics, e-commerce, environmental studies, financial markets, multimedia data process- ing, network monitoring, and social service anal- ysis. Letter grading.

M146. Introduction to Machine Learning, (4) (Same as Electrical and Computer Engineering M146E.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Civil and Environmental En- gineering 110 or Computer Engineering 131A or Mathematics 170A or Statistics 100A, course 33. Introduction to breadth of data science. Foundation for modeling data sources, principles of opera- tion of common tools for data analysis, and applica- tion of tools and models to data gathering and analy- sis. Topics include statistical foundations, regression, classification, kernel methods, clustering, expectation maximization, priors, and distributed trans- action, decision theory, reinforcement learning and deep learning. Letter grading.

M151B. Computer Systems Architecture, (4) (Same as Electrical and Computer Engineering M151BC.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 33, and M51A or Electrical and Computer Engineering M16. Recommended: courses 111, and M152A or Electrical and Computer Engineering M16B. Computer system architecture and design, implementation of CPU data- path and control, instruction set design, memory hier- archy (caches, main memory, virtual memory organi- zation), pipelining, input/output, UNIX, and preemptive multitasking (bus structures, interrupts, DMA), performance evaluation, pipelined processors. Letter grading.

M152A. Introductory Digital Design Laboratory, (2) (Same as Electrical and Computer Engineering M152BL.) Laboratory, four hours; outside study, two hours. Enforced requisite: course M51A or Electrical and Computer Engineering M16. Hands-on design, implemention, and debugging of digital logic cir- cuits, use of computer-aided design tools for sche- matic capture and simulation, implementation of complex circuits using programmed array logic, de- sign projects. Letter grading.

152B. Digital Design Project Laboratory, (4) Labo- ratory, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course M151B or Electrical Engineering M116C. Recommended: Engi- neering M16B or M152A. Design and implementation of complex digital subsystems using field-programmable gate arrays (e.g., proces- sor, memories, input/output, etc). 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. Intro- duction to fundamental problem solving and knowl- edge representation paradigms, artificial intelli- gence. Introduction to Lisp with regular programming assignments. State-space and problem reduction methods, brute-force and heuristic search, planning techniques. Implementation of basic AI structures including predicate logic, production systems, se- mantic nets and primitives, frames, scripts. Special topics in natural language processing, expert sys- tems, vision, and parallel architectures. Letter grading.

168. Computational Methods for Medical Imaging, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better, Mathe- matics 33A, one course from Civil and Environmental Engineering 110, Electrical and Computer Engi- neering 131A, Mathematics 170A, or Statistics 100A. Theory and implementation of image reconstruction including angiography, computed tomography (CT), and mag- netic resonance (MR). Project-based course covers applied topics in medical imaging including image processing, atlasing, predictive modeling, personal- ized medicine, and drive fundamental learning methods. Letter grading.


M171L. Data Communication Systems Laboratory, (2 to 4) (Same as Electrical and Computer Engi- neering M171LL.) Laboratory, four to eight hours; out- side study, two to four hours. Recommended prepa- ration: course M152A, Limited to seniors. Not open to students with credit for course M117. Interpretation of analog-signaling aspects of digital systems and data communication systems. Experience in using contem- porary test instruments to generate and display sig- nals in relevant laboratory setups. Use of oscillo- scopes, pulse and function generators, baseband spectral analyzers, and instruments for interactively controlling (e.g., terminals, modern, PCs, and workstations in environments on pulse transmission impairments, waveforms and their spectra, modem and terminal characteristics, and in- terfaced equipment) equipment. Letter grading.

172. Real-Time Three-Dimensional Animation, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 32. Intro- duction to handling of geometry, appearance, and motion, including both theory and practical aspects of environments. How to create final image using per- spective and orthographic transformations. Basics of modeling primitives such as polygonal models and implicit and parametric surfaces. Basic ideas behind real-time animation. Letter grading.

C174C. Computer Animation. (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. Use of cameras and light to control 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 engineering (e.g., rendering of movies, real-time three-dimensional animation) to medicine (modeling of biological structures from imaging data), mixed reality (augmentation of real-world and virtual environments). Fundamen- tamental analytical tools for modeling and inferring geo- metric (shape) and photometric (reflectance, illumina- tion) properties of objects and scenes, and for ren- dering and manipulating these properties. Letter grading.

174E. Introduction to Computer Graphics: Three- Dimensional Photography and Rendering, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. Three-di- mensional photography and image-based rendering. Use of cameras and light to control 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 engineering (e.g., rendering of movies, real-time three-dimensional animation) to medicine (modeling of biological structures from imaging data), mixed reality (augmentation of real-world and virtual environments). Fundamen- tamental analytical tools for modeling and inferring geo- metric (shape) and photometric (reflectance, illumina- tion) properties of objects and scenes, and for ren- dering and manipulating these properties. Letter grading.


M182. Systems Biomodeling and Simulation Ba- sic, (4) (Same as Bioengineering M182.) Lecture, three hours; discussion, one hour; laboratory, two hours; outside study, six hours. Enforced requisite: Mathe- matics 3B, 1B, or Life Sciences 30A. Recommended courses: Mathematics 3C, 32A; Life Sciences 30B. Designed for undergraduate students in life sci- ences and engineering. Introduction to explicit mod-
eling and simulation of dynamic biological systems. Presentation of how biology, biochemistry, and physiology underlying dynamic systems biomodeling are transformed into system diagrams and graphs for refining conceptual understanding of their form and functioning. Course offered by Biology M202, Mechanical and Aerospace Engineering M20, Mechanical and Aerospace Engineering M20, or Program in Computing 10A, and Mathematics 3B or 31B. Survey designed to introduce students to computational and systems biology tools for 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 students to engage with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology research. P/NP grading.

M194. 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 designed to introduce students to computational and systems biology tools for 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 students to engage 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 Computational and Systems Biology M185.) Lecture, two hours; discussion, two hours; outside study, eight 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 designed to introduce students to computational and systems biology tools for 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 students to engage with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology research. P/NP grading.

CM186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) Same as Bioengineering CM186, Computational and Systems Biology M186, and Ecology and Evolutionary Biology M178A.) 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 all scales of organization. Course covers modeling and simulation of system, multicompartamental, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismic levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into mathematical models for simulating and analyzing. Basics of numerical simulation algorithms, with modeling software exercises in class and PC laboratory assignments. Concurrently scheduled with course CM185. P/NP grading.

CM187. Research Communication in Computational and Systems Biology. (4) Same as Bioengineering CM187 and Computational and Systems Biology M187.) Lecture, four hours; outside study, eight hours. Enforced requisite: course CM185. Closely directed, interactive, and real research experience in active quantative 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 research results. Students formulate a plan for proceeding with research for research results. Major emphasis on effective research reporting, both oral and written. Concurrency required with course CM287. Letter grading.

188. Topics in Computer Science. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Special topics in computer science for undergraduate students taught on experimental or temporary basis. Restricted to resident and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

192A. Learning Assistant Pedagogy. (1 to 4) Seminar, one hour; outside study, two to 11 hours. Training seminar for advanced undergraduate students who are learning assistants (LAs) or peer learning facilitators (PLFs). Exploration of current topics in pedagogy and education research. Students work on communication skills with constant assessment of and feedback on progress. May be repeated for credit. Letter grading.

194. Research Group Seminars: Computer Science. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course CM185 or equivalent. 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 research results. Students formulate a plan for proceeding with research for research results. Major emphasis on effective research reporting, both oral and written. Concurrency required with course CM287. 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. Culminating paper or project required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Students. 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. Seminar for advanced computer science research into theory of, analysis and synthesis of, and applications of information processing systems. Each member completes one tutorial and one or more original pieces of work for a specified area. May be repeated for credit. Letter grading.

205. Health Analytics. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: courses 31, 180. Recommended: statistics and probability. An introduction to the application of computer science and engineering to healthcare problems with a focus on statistical and machine learning methods. Knowledge in programming languages, applied data analytics course, with focus on healthcare applications. How to properly generate and analyze health data. Project-based course to learn about best practices in health data collection and validation. Exploration of various machine learning and data analytic tools to learn underlying structures and patterns in healthcare problems. Different machine learning concepts and algorithms, statistical models, and building of data-driven models. Big data analytics and tools for handling structured, unstructured, and semi-structured data sets. Letter grading.

211. Network Protocol and Systems Software Design for Wireless and Mobile Internet. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 118. Focus on networking aspects in the Internet protocols, including IP core transport protocols, routing protocols, DNS, NTP, and security protocols such as DNSSEC, to understand principles behind design of these protocols, appreciate their design tradeoffs, and learn lessons from their operations. Letter grading.

217A. Advanced Topics in Internet Research. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 217A. Focus on existing literature on the Internet protocols, including IP core transport protocols, routing protocols, DNS, NTP, and security policies 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 requisite: course 217A. Design for graduate students, overview of Internet protocols, including IP core transport protocols, routing protocols, DNS, NTP, and security protocols such as DNSSEC, to understand principles behind design of these protocols, appreciate their design tradeoffs, and learn lessons from their operations. Letter grading.
to network architecture design. Fundamental issues in network protocol design and implementations. Letter grading.

218. Advanced Computer Networks. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 100A or C219. Introduction to seven-layer ISO-OSI model. High-speed network, LANs, MANs, ATM. Flow and congestion control; bandwidth allocation. Internetting. Letter grading.

219. Current Topics in Computer System Modeling Analysis. (4) Seminar, 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. Grading report on selected topics. 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, two hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Described for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and computational techniques, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment. Students concurrently scheduled with course CM121, S/U or letter grading.

CM222. Algorithms in Bioinformatics. (4) (Same as Bioinformatics M222 and Chemistry CM260B.) Lecture, four hours; discussion, two hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Course CM212 is not a prerequisite to CM222. Designed for engineering students as well as students from biological sciences and medical school. Development and application of computational approaches to biological questions, with focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM122. Letter grading.

CM224. Computational Genetics. (4) (Same as Bioinformatics M224 and Human Genetics CM224.) Lecture, four hours; discussion, two hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better, and Mathematics 33A, and one course from 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, technolo-gies for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems as computational problems and then solving these problems using computational techniques. Computational techniques include those from genetics and computer science. Concurrently scheduled with course CM124. Letter grading.

M225. Computational Methods in Genomics. (4) (Same as Bioinformatics M225 and Human Genetics M265B.) Lecture, two and one half hours; discussion, two and one half hours; outside study, seven hours. Introduction to computational approaches in bioinformatics, genomics, and computer 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 M226.) Lecture, four hours; discussion, study, eight hours. Enforced requisite: course 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. Biology has become data-intensive science. Bottleneck in being able to make sense of biological processes has shifted from data generation to statistical models and inference algorithms that can analyze these datasets. Statistical machine learning provides important toolkit in this endeavor. Biological datasets offer new challenges to field of machine learning. Examination of statistical and computational aspects, machine learning techniques, and their application to key biological questions. Letter grading.

M229S. Seminar: Current Topics in Bioinformatics. (4) (Same as Biological Chemistry M229S and Human Genetics CM229.) Lecture, 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, computational genomics, and statistical 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 include those from computer science. May be repeated for credit with topic change. Letter grading.

230. 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 software system. Introduction to foundations, techniques, tools, and applications of automated software engineering technology. Development, extension, and evaluation of mini automation technology. Analysis and assessment of how tool fits into software development process. Introduction to current research topics in automated software engineering. S/U or letter grading.

231. Types and Programming Languages. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131. Introduction to static type systems and their usage in programming language design and software reliability. Operational semantics, simply-typed lambda calculus, type soundness proofs, types for mutable references, types for exceptions. Parametric polymorphism, type inference, polymorphic type inference. Types for objects, subtyping, combining parametric polymorphism and subtyping. Types for modules, parameterized modules. Formal specification and verification of various type systems, as well as readings from recent research literature on modern applications of type systems. Letter grading.

232. Static Program Analysis. (Analysis, four hours; outside study, eight hours. Requisite: course 132. Introduction to static analysis of object-oriented programs and its usage for optimization and bug finding. Class hierarchy analysis, rapid type analysis, equivalency-based analysis, subset-based analysis, flow-insensitive and flow-sensitive analysis, context-insensitive and context-sensitive analysis. Soundness proofs for static analyses. Efficient data structures for static analysis information such as directed graphs and binary decision diagrams. Flow-directed method inlining, type-safe method inlining, synchronization optimization, deadlock detection, security vulnerability detection. Formal specification and implementation of variety of static analyses, such as verifications from recent research literature on modern applications of static analysis. Letter grading.

233A. Parallel Programming. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 131. Further exploration of the problem of allocation in distributed systems; primitives for parallel computation: specification of parallelism, interprocess communication and synchronization, scalability, and reusability; synchronization and asynchronous languages: CSP, Ada, Linda, Maude, UC, and others; introduction to parallel program verification. Letter grading.

233B. Verification of Concurrent Programs. (4) Lecture, four hours; outside study, eight hours. Requisite: course 233A. Formal techniques for verification of concurrent programs. Topics include safety, liveness, program and state assertion-based techniques, weakest precondition semantics, Hoare logic, temporal logic, UNITY, and axiomatic semantics for selected parallel languages. Letter grading.

234. Computer-Aided Verification. (4) Lecture, four hours; discussion, two hours. Requisite: course 181. Introduction to theory and practice of formal methods for design and analysis of concurrent and embedded systems, with focus on algorithmic techniques for checking behavioral correctness of hardware and software systems. Topics include semantics of reactive systems, invariant verification, temporal logic model checking, theory of omega automata, state-space reduction techniques, compositional and hierarchical reasoning. Letter grading.

235. Advanced Operating Systems. (4) Lecture, four hours; outside study, eight hours. Preparation: C or C++ programming experience. Requisite: course 111, in-depth investigation of operating systems issues and construction of research operating system for PC machines and consideration of recent literature. Memory management and protection, interrupts and traps, processes, interprocess communication, preemptive multitasking, file systems, Virtualization, networking, profiling, research operating systems. Series of laboratory projects, including extra challenge work. Letter grading.

236. Computer Security. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 118. Basic and research material on computer security. Topics include security, computer security, common security tools, use of cryptographic protocols for security, security tools (firewalls, virtual private networks, honeypots), virus and worm protection, security assurance and testing, design of secure systems, privacy, applying security principles to realistic problems, and new and emerging threats and security tools. Letter grading.

C237A. Prototyping Programming Languages. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 131. How different programming language paradigms provide dramatically different ways of thinking about computation and offer trade-offs in system design, such as modularity, extensibility, expressiveness, and safety. Concrete exploration of three major programming paradigms—functional, object-oriented, and logic programming—by prototyping implementations of languages in each. Analysis of prototypes to shed light on design and structural properties of each language and paradigm and to allow easy comparison against another. Further implementation of new abstractions, both as stand-alone languages and as libraries in existing languages. Concurrently scheduled with course C137A. Letter grading.

C237B. Programming Language Design. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course C237A. Study of various programming language design and history and research literature, that attempt to address problems of software systems that are bloated, buggy, and difficulty.
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; outside 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 efforts. May be repeated for credit with topic change. Letter grading.

240A. Databases and Knowledge Bases. (4) Lecture, four hours; outside study, eight hours. Requisite: course 143. Theoretical and technological foundation of Intelligent Database Systems, that merge database technology, knowledge-based systems, and advanced programming environments. Rule-based knowledge representation, spatio-temporal reasoning, and object-oriented declarative query/pro- gramiing are salient features of this technology. Other topics include object-relational systems and data mining techniques. 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. Integration of multimedia data: alphanumeric, long text, images/vide, and voice. Multimedia information systems requirements. Data models. Searching and accessing databases and across Internet by alphanumeric, image, video, and audio content. Querying, visual languages, and communication. Database design and organization, logical and physical. Indexing methods. Internet multimedia streaming and multimedia 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, concurrency control, recovery, transaction commit protocols, semantic query answering, multi- database systems, fault recovery techniques, network partitioning, examples, trade-offs, and design experiences. Letter grading.

245. Big Data Analytics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 143 or 180 or equivalent. With unprecedented rate at which data is being collected today, 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 datasets using highly interactive field representing confluence of several disciplines, including database systems, data warehousing, data mining, mathematics, algorithms, 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, computational biology, 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-

suring techniques, large-scale data mining algo- rithms, efficient page refresh techniques, Web-search ranking algorithms, and query processing techniques on independent data sources. Letter grading.

249. Current Topics in Data Structures. (2 to 12) Lecture, four hours; outside study, eight hours. Re- view of current literature in area of data structures in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics and receive credit with consent of instructor. Letter grading.

251A. Advanced Computer Architecture. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. Recommended: course 111. Design and implementation of modern computer systems. Advanced computer hierarchy techniques, static and dynamic pipelining, superscalar and VLIW processors, branch prediction, speculative execution, software support for instruction-level parallelism, simulation-based performance analysis and evaluation, state-of-art design examples, introduction to parallel architectures. Letter grading.

251B. Parallel Computer Architectures. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. Recommended: course 251A. SIMD and MIMD systems, symmetric multiprocessors, dis- tributed-shared-memory systems, messages-passing systems, shared memory and hypercube interconnection networks, host-network interfaces, switching element design, communication primitives, cache coherence, memory consistency models, synchronization primiti- ves, and standard design examples. Letter grading.


M258A. Design of VLSI Circuits and Systems. (4) Lecture, one to three and one-half hours. (Same as Electrical and Computer Engineering M216A.) Lecture, four hours; outside study, two hours. Requisite: course M51A or Electrical and Computer En- gineering M146, M166. Techniques of VLSI Design. Letter grading.

M258C. LSI in Computer System Design. (4) (Same as Electrical and Computer Engineering M216C.) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course M258A. System design and application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. Letter grading.

258F. Physical Design Automation of VLSI Sys- tems. (4) Lecture, four hours; outside study, eight hours. Detailed study of various physical design auto- mation problems of VLSI circuits, including logic par- titioning, floorplanning, placement, global routing, channel width switching, parasitic extraction, and minimization, compaction and performance-driven layout. Discussion of applications of number of im- portant optimization techniques, such as network flows, Steiner trees, simulated annealing, and genetic algorithms. Letter grading.

258G. Logic Synthesis of Digital Systems. (4) Le- cture, four hours; outside study, eight hours. Requi- sites: courses M51A, 180. Detailed study of various problems in logic-level synthesis of VLSI digital sys- tems, including two-level Boolean network optimiza- tion, logic optimization, technology mapping for standard cells and field-programmable gate-array (FPGA) designs; retime for sequential circuits; and applications of binary de- cision diagrams (BDDs). Letter grading.

258H. Analysis and Design of High-Speed VLSI Intercon- nectors. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M258A, M258B. De- sign and analysis of high-speed VLSI interconnects at both inte- grated circuit (IC) and packing levels, including inter- connect capacitance and resistance, lossless and lossy transmission lines, cross-talk and power distribu- tion noise, delay models and power dissipation models, interconnect topology and geometry optimi- zation, and clocking for high-speed systems. Letter grading.

259. Current Topics in Computer Science: System Design/Architecture. (2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer science system design in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.

260. Machine Learning Algorithms. (4) Lecture, four hours; outside study, two hours; outside study, six hours. Recommended requisite: course 180. Prob- lems of identifying patterns in data. Machine learning allows computers to learn potentially complex pat- terns from data and to make decisions based on these patterns. Introduction to fundamentals of this discipline to provide both conceptual grounding and practical experience with several learning algorithms. Techniques and examples used in areas such as healthcare, financial systems, commerce, and social networking. Letter grading.


262A. Learning and Reasoning with Bayesian Net- works. (4) Lecture, four hours; outside study, two hours; outside study, six hours. Recommended requisite: course 180. Prob- lems of representing and managing uncertainty in reasoning systems; pre- sentational and computational techniques. Learning causal structures from data. Identifying causal effects. Co- variate selection and instrumental variables in linear and nonparametric models. Learning causal associa- tion and confounding control. Logic and algorithmization of counterfactuals. Probabilities of counterfactuals. Dif- ferent and indirect effects. Probabilities of causation. Identifiability, counterfactual causality, finan- cial, and psychology, and heuristic programming theory. Letter grading.


262Z. Current Topics in Cognitive Systems. (4) Lecture, four hours; outside study, eight hours. Requi- site: course 262A. Additional requisites for each of- fering announced in advance by department. Theory and implementation of systems that emulate or sup- port human reasoning. Current literature and indi- vidual studies in artificial intelligence, knowledge- based systems, decision support systems, computa- tional linguistics, and cognitive science. May be repeated for credit with topic change. Letter grading.
263A. Language and Thought. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 131 or 161. Introduction to natural language processing (NLP), with emphasis on semantics. Presentation of process models for various 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. Animals are mobile/sensing animal-like software agents embedded in simulated dynamic environments. Emphasis on modeling: goal-oriented behavior via neurocontrollers, adaptation via reinforcement learning, evolutionary programming. Animat-based tasks include foraging, mate finding, 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 propositional logic; algorithms for logical reasoning, including satisfiability and entailment; syntactic and semantic restrictions on knowledge bases; effect of these restrictions on ex- pressing, computing, and computational complexity; applications of automated reasoning to diagnosis, planning, design, formal verification, and reliability analysis. Letter grading.


266B. Statistical Computing and Inference in Vision and Cognition. (4) (Same as Statistics M232BL.) Lecture, three hours; preparation: basic statistics, linear algebra (matrix analysis), computer vision. Introduction to broad range of algorithms for statistical inference and learning that could be used in vision, pattern recognition, speech, bioinformatics, data mining. Topics include Markov chain Monte Carlo sampling, sequential Monte Carlo methods, belief propagation, partial differential equations. S/U or letter grading.

267A. Probabilistic Programming and Relational Learning. (4) Lecture, four hours; outside study, eight hours. Introduction to computational models of probability and statistical models of relational data. Study of relational representations such as probabilistic databases, relational graphical models, and Markov logic networks, as well as various probabilistic programming languages. Covers their syntax and semantics, probabilistic inference problems, parameter, and structure learning. Topics include: algorithms, and theoretical properties of representation and inference. Expressive statistical modeling, how to formalize and reason about complex statistical assumptions and encode knowledge in machine learning models. Survey key applications in natural language processing, graph mining, computer vision, and computational biology. Letter grading.

269. Seminar: Current Topics in Artificial Intelligence. (4) Seminar, to be arranged. Review of current literature and research practice in area of 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, inverse kinematics, forward and inverse dynamics, motion capture animation techniques, physics-based animation of particles and systems, and motor control. Concurrently scheduled with course 174A. Letter grading.

275. Artificial Life for Computer Graphics and Vision. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 174A. Recommended prerequisite: experience in computer graphics. Concepts that concepts from artificial life, emerging discipline that spans computational and biological sciences, can play in construction of advanced computer graphics and vision models for virtual reality, animation, interaction, visual sensor networks, medical image analysis, etc. Focus on comprehensive models that can realistically emulate variety of living things (plants and animals) from lowest animals to humans. Exposure to effective computational modeling of different phenomena of life and their incorporation into sophisticated, self-animating graphical entities. Specific topics include modeling plants using L-systems, biomechanical simulation and control, behavioral animation, reinforcement and neural-network learning of locomotion, cognitive modeling, and motion on facial animation, and artificial evolution. Letter grading.

276A. Pattern Recognition and Machine Learning. (4) (Same as Statistics M231.) Lecture, three hours; discussion, one hour. Designed for graduate students. Fundamentals of pattern recognition, and algorithms for pattern recognition and machine learning that are used in computer vision, image processing, speech recognition, data mining, statistics, and computational biology. Topics include Bayesian decision theory, parametric and nonparametric learning, clustering, complexity (VC-dimension, MDL, AIC), PCA/ICA/TCA, MDS, SSM, boosting. S/U or letter grading.

280A-280ZZ. Algorithms. (4 each) Lecture, four hours; discussion, two hours. Requisite: course 180. Additional requisites for each offering announced in advance by department. Selections from design, analysis, optimization, and implementation of algorithms; computational complexity and general theory of algorithms; algorithms for particular application areas. Substitutes of some current and planned sections: Principles of Design and Analysis (280A); Distributed Algorithms (280B); Approximation Algorithms (280C); Randomized Algorithms (280D); Approximation Algorithms (280E). May be repeated for credit with consent of instructor and topic change. Letter grading.

280AP. Approximation Algorithms. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Background in discrete mathematics helpful. Theoretically sound techniques for dealing with NP-Hard problems. Inability to solve these problems efficiently prompts us to look for algorithms based on approximation—finding solution that is near to best possible in efficient running time. Coverage of approximation techniques for a number of different problems, with algorithm design techniques that include primal-dual method, linear program rounding, greedy algorithms, and local search. Letter grading.

281A. Computation and Complexity. (4) Lecture, four hours; outside study, eight hours. Requisite: course 181 or computational science. Concepts fundamental to study of discrete information systems and theory of computing, with emphasis on regular sets of strings, Turing-recognizable (recursively enumerable) sets, close relations to characterizations, nondeterminisms, decidability, unsolvable problems, “easy” and “hard” problems, PTIME/NP-Complete classes.

M282A. Cryptography. (4) (Same as Mathematics M209A.) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, stressing rigorous definitions and proofs of security. Topics include notions of hardeness, 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 and secure computation with static security. Letter grading.

M282B. Cryptographic Protocols. (4) (Same as Mathematics M209B.) Lecture, four hours; outside study, eight hours. Requisite: course M282A. Consideration of advanced cryptographic protocol design and analysis. Topics include noninteractive zero-knowledge proofs; zero-knowledge arguments; concurrent and non-black-box zero-knowledge; IP=NP, proof of stronger notions of security for public-key encryption, including chosen-plaintext security; secure multiparty computation; dealing with dynamic adversary, nonmallevability and composability; identity-based cryptography; identity-based cryptograph; private information retrieval; protection against man-in-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.

M283A-M283B. Topics in Applied Number Theory. (4–4) (Same as Mathematics M208A-M208B.) Lecture, three hours. Basic number theory, including congruences and prime numbers. Cryptography: public-key, discrete log cryptosystems, digital signatures, Shamir’s secret sharing, secure protocols for nonmalleability and chosen-ciphertext security; public-key encryption, including chosen-plaintext security; secure multiparty computation; dealing with dynamic adversary, nonmallevability and composability; threshold cryptography; identity-based cryptography; private information retrieval; protection against man-in-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, operators; pushdown automata, context-free languages and their generalizations, context-free grammars, left- and right-linear grammars, Chomsky hierarchies; multiple-use systems; machine-based complexity. Substitutes of some current and planned sections: Context-Free Languages (284A), Parsing Algorithms (284P). May be repeated for credit with consent of instructor and topic change. Letter grading.

CM236. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Bioengineering CM236.) Lecture, four hours; discussion, two hours; outside study, eight hours. Dynamic biosystems modeling and computer simulation methods for studying biological/biomedical processes and systems at multiple levels of organization. Control system, multicompartimental, pred-ator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and tissue levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into
mathematics models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with modeling software exercises in class and PC laboratory assignments. Concurrently scheduled with course CM186. Letter grading.

CM287. Research and Computing in Computational and Systems Biology. (4) (Same as Bioengineering CM287.) Lecture, four hours; outside study, eight hours. Requisite: 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 scientific community, appropriate to student interests and experience. Topics of oral presentations and written progress reports explain how to proceed with research results. Major emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM187. Letter grading.

CM290S. 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.

CM290A-290ZZ. 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 or research interest. Students report on selected topics. Letter grading.

CM290CO. 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.

CM290RA. 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.

CM296A. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Bioengineering M296A and Medicine M270C.) Lecture, four hours; outside study, eight hours. Requisite: course CM296B. Research techniques and experience on special topics involving models, modeling methods, and model/computing in biological and medical sciences. Review and critique of literature. Research problem searching and formulation. Abstracts to solutions. Individual MS- and PhD-level project training. Letter grading.

CM296D. 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 sturdiness. Letter grading.

CM298. 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.

CM375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice period 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.

CM495. 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.

CM495B. Teaching with Technology. (2) Seminar, two hours; outside study, four hours. Limited to graduate Computer Science Department teaching assistants. Seminar on teaching assistants covering basic instruction and software that can be used to aid instruction in and out of classroom. S/U grading.

CM497D-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 S/U or letter (497E) grading.

CM596. Directed Individual or Tutorial Studies. (1 to 8) Tutorial, to be arranged. Limited to graduate computer science students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. S/U grading.

CM597C. 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.

CM598. 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 prospectus. S/U grading.

CM599. 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, Graduate Studies. S/U grading.

COMPUTING, PROGRAM IN

CONSERVATION OF ARCHAEOLOGICAL AND ETHNOGRAPHIC MATERIALS

Interdepartmental Program at the University of California

Conservation of Archaeological and Ethnographic Materials

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Box 951510
Los Angeles, CA 90095-1510

Conservation of Archaeological and Ethnographic Materials
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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, the distinct, plane and strong commitment to the advancement of the conservation profession, they provide distinct 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 viable research 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 Philoso-

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 enrolled in a degree program and enrolled and 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. General overview of risks (direct and indirect) and materials vulnerability of in situ cultural heritage and movable archaeological materials in emergency situations (rescue excavations, disasters, conflicts), with emphasis on readiness, first aid response, and recovery. Readiness focuses on preparedness and preventive measures, including burials, shelters, rescue excavations, and documentation as well as developing inventories and awareness campaigns. First aid response covers development of on-site emergency risk assessments to evaluate damage and putting triage theory into practice, salvage rescue operations, emergency reparation in situ stabilization and protection (using locally available materials), and training. Recovery is based on documentation, lifting methods, handling, transportation, and storage. Emphasis on practical solutions to prevent and mitigate damage and to recover and safeguard archaeological artifacts. Concurrently scheduled with course C220. Letter grading.

C142. Managing Collections for Museums, Libraries, and Archives. (4) Lecture, two hours. How conservators work together with curators, collections managers, museum makers, designers, and registrars to permit collections to be both accessed and preserved concurrently scheduled with course C242. Letter grading.

Graduate Courses


211. Science Fundamentals in Conservation of Materials. (4) Lecture, three hours. Introduction to important scientific parameters in conservation of materials that are of great importance for both fundamental science and practical applications. Students gain better understanding of intrinsic properties of materials, mechanisms of degradation, and conservation 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. General overview of risks (direct and indirect) and materials vulnerability of in situ cultural heritage and movable archaeological materials in emergency situations (rescue excavations, disasters, conflicts), with emphasis on readiness, first aid response, and recovery. Readiness focuses on preparedness and preventive measures, including burials, shelters, rescue excavations, and documentation as well as developing inventories and awareness campaigns. First aid response covers development of on-site emergency risk assessments to evaluate damage and putting triage theory into practice, salvage rescue operations, emergency reparation in situ stabilization and protection (using locally available materials), and training. Recovery is based on documentation, lifting methods, handling, transportation, and storage. Emphasis on practical solutions to prevent and mitigate damage and to recover and safeguard archaeological artifacts. Concurrently scheduled with course C120. Letter grading.

221. Principles, Practice, and Ethics in Conservation. (4) Lecture, three hours, one hour. Introduction to preservation of cultural heritage materials, including what should be preserved and why, as well as who should be involved in decision-making process. Use of several examples of issues and problems involved in preservation of works of art, from L.A. Murals to Sistine Chapel, from ancient wall paintings to Statue of Liberty. Discussion of issues of preservation and restoration of these cultural heritage materials both in museum and outdoor environment contexts. Materials and techniques used to make cultural heritage materials, in relation to preservation efforts needed to prevent deterioration. Discussion of examples of conservation issues related to sites, buildings, monuments, and collections. Ethical and contextual aspects with reference to changing values in Conservation of Archaeological and Ethnographic Materials / 293
DENTISTRY
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Paul H. Krebsbach, DDS, PhD, Dean

Scope and Objectives
The UCLA School of Dentistry offers the following courses for general campus students. Dentistry 199F and 199H are individual special studies courses for UCLA undergraduates with definitive research interests and abilities applicable to dentistry. The subject areas include oral biology, clinical research, and dental health policy. Interested students should contact the associate dean of research at 310-825-6401 to obtain the names and areas of interest of participating School of Dentistry faculty members.

Dentistry
Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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

Upper-Division Courses

199. Individual Special Studies. (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required reading assignments or laboratory work leading to final oral or written examination. May be repeated for maximum of 16 units. P/NP or letter grading.

199H. Individual Special Studies (Honors). (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required paper submitted at end of course in addition to final examination (paper to be of publication quality as judged by course mentor). May be taken for maximum of 8 units. P/NP or letter grading.

Graduate Courses


441C. Introduction to Healthcare. (2) Lecture, two hours. Description and analysis of American dental care system from historical, ethical, and legal perspectives. Assessment of how dentistry fits within general provision of healthcare services in America, with comparisons to dental care provisions in other countries. S/U grading.

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James W. Bassler, MA
Robert A. Israel, MFA
Mitsuura Katayama, MA
J. Bernard Kester, MA
Vasa V. Mihich

Associate Professor
Ramesh Srinivasan, PhD

Assistant Professor
Isla Hansen, 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, performance, color, drawing, letterforms and typography, motion, and interactivity. Historical perspectives and social issues are also introduced. At the upper-division level, studio courses explore current uses of interactive media and new directions in visual communication design, including the study of time and motion, as well as virtual form and space in computer-generated environments. Through a balance of courses in theory, criticism, and practice, students develop an understanding of design principles. Most courses are taught as studios of no more than 22 students, which encourages individual growth and fosters a sense of community within the department.

The two-year Master of Fine Arts (MFA) program fosters mature, professional-quality work utilizing the most current technologies in the field of media arts. The program focuses on developing an individual thesis project that incorporates in-depth research and theoretical exploration of a topic, culminating in a final exhibition of work.

Facilities and equipment in the department enable students to create work in two, three, and four dimensions. They expand opportunities for students to develop interactive media applications in a networked environment and advanced computer graphics. The department equipment includes computer laboratories with high-end PC and Macintosh computers and relevant software for the creation of works for print, web, video, and other media, a fabrication laboratory with equipment ranging from table saws to three-dimensional printers to a CNC machine to create physical objects combined with electronics, and a print laboratory with high-quality printers.

The Department of Design/Media Arts reserves the right to hold for exhibition purposes examples of any work done in classes and to retain for the permanent collection of its galleries such examples as may be selected.

Undergraduate Study
The Design/Media Arts major is a designated capstone major. Students are required to complete an advanced project of their own that entails full engagement with the design process. Through their capstone work, students demonstrate their capacities for research, ideation/concept development, creative and design direction, communication strategy, design, production/fabrication, and critical analysis. Capstone courses focus on career choice, and final projects are showcased at the spring senior show.

Design/Media Arts BA
Capstone Major

Learning Outcomes
The Design/Media Arts major has the following learning outcomes:

• Deep understanding of the field through immersion
• Exploration and development of ideas through listening to and observation of patterns
• Definition of an event and its surroundings and mise-en-scène, and the ethos of the student’s idea
• Development of the specifics of a design
• Conceptualization of how an idea reaches its maturity and vibrancy
• Designed specifics of each element of the vi-
sual vocabulary—from graphic elements to photography, videography, and illustrations—
including definition of spatial, material, and
auditory elements
• Thorough research of appropriate and rele-
vant production methods
• Analysis, review, and critique of others’ work

Preparation for the Major
Required: Design|Media Arts 8, 10, 21, 22, 24.
Offered only as part of Summer Institute. P/NP
grading.

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 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 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 photog-
raphy skills using digital cameras. Alteration/manipu-
lation 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 stu-
dent work. Field trips to surrounding Los An-
geles 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: two-week summer course designed to meet needs of high
school students interested in exploring their creative
potential within fields of design media arts, with focus
on concepts of narrative and storytelling. Introduction
to and exploration of variety of media such as
graphic, web, and video design with goal of
combining and integrating these media to express
and realize their narrative projects. Students work
with multimedia software and technology in each
discipline area, developing diverse skill sets while cul-
tivating conceptual capabilities around storytelling
project, and with experienced instructors and profes-
sionals in field to develop 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.
3. Video Design. (2) Studio, 40 hours. Limited to high
school students. Two-week summer course includ-
ing lectures, required screenings, laboratory visits, field trips, and outside study. Exploration of creative aspects of
scientific research and innovation to gain broad un-
derstanding of impact and influence on contemporary art and
popular culture, with focus on new sciences of
biotechnology and nanotechnology. Development of
proposals and ideas that could serve as prototypes for either art projects or scientific research study.
P/NP grading.
4. Media History. (5) Lecture, three hours; outside study, 12 hours. Synthetic overview of optical media
and aesthetic movements covering past two centu-
rnes; photography and industrialization/Romanticism
(1850 to 1900), cinema and modernism (1900 to 1950),
television and postmodernism (1950 to 2000), and
digital media and unimodernism (2000 to 2050). How such movements can inform our
understanding of work and how understanding these media becomes essen-
tial in emerging era of digital humanities. P/NP or
letter grading.
5. Art/Science and Technology Studio/Laboratory. (4) Studio/laboratory, 40 hours. Required of Design | Media Arts
majors. Survey of media arts, their history, aesthetics, and cultural roles from late-19th century to present.
Investigation of media arts, their history, aesthetics, and cultural roles from
concepts of narrative and storytelling. Introduction
to and 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 multimedia software and technology in each
discipline area, developing diverse skill sets while cul-
tivating conceptual capabilities around storytelling
project, and with experienced instructors and profes-
sionals in field to develop 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. Introduction to Design | Media Arts. (4) Studio,
40 hours. Limited to high school students. Two-week summer course designed to meet needs of high
school students interested in exploring their creative
potential within fields of design media arts, with focus
on concepts of narrative and storytelling. Introduction
to and exploration of variety of media such as
graphic, web, and video design with goal of
combining and integrating these media to express
and realize their narrative projects. Students work
with multimedia software and technology in each
discipline area, developing diverse skill sets while cul-
tivating conceptual capabilities around storytelling
project, and with experienced instructors and profes-
sionals in field to develop 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.
7. Basic Drawing. (5) Lecture, three hours; outside study, 12 hours. Overview of composition and
conceptualization through drawing. Basic forms, including history of technology and various art
and cultural innovations, technology-driven art in-
spired by science, and art/science collaborative proj-
tections, required screenings, laboratory visits, field trips, and outside study. Exploration of creative aspects of
scientific research and innovation to gain broad un-
derstanding of impact and influence on contemporary art and
popular culture, with focus on new sciences of
biotechnology and nanotechnology. Development of
proposals and ideas that could serve as prototypes for either art projects or scientific research study.
P/NP grading.
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 cultural innovations, technology-driven art in-
spired by science, and art/science collaborative proj-
tections, required screenings, laboratory visits, field trips, and outside study. Exploration of creative aspects of
scientific research and innovation to gain broad un-
derstanding of impact and influence on contemporary art and
popular culture, with focus on new sciences of
biotechnology and nanotechnology. Development of
proposals and ideas that could serve as prototypes for either art projects or scientific research study.
P/NP grading.
9. Design Culture. (5) Lecture, three hours; outside study, 12 hours. Open to nonmajors. Understanding design
process, with emphasis on development of vi-
sual language; study of storyboarding, histori-
cal, economic, and cultural factors influencing design
in physical environment. P/NP or letter grading.
10. Design Future. (5) Lecture, three hours; outside study, 12 hours. Open to nonmajors. Understanding design
process, with emphasis on development of vi-
sual language; study of storyboarding, histori-
cal, economic, and cultural factors influencing design
in physical environment. P/NP or letter grading.
11. 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.
12. Drawing and Color. (4) Studio, six hours; outside study, six hours. For drawing. Drawing, exploration of rela-
tionship between concept and image creation while
fostering development of sound drawing and observer-
vation 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. Combin-
a 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 experi-
mental materials as foundation for creativity; origina-
tion and solution of problems. P/NP or letter grading.
14. Motion. (4) Studio, six hours; outside study, six hours. Introduction and integration of traditional de-
sign techniques, camera, and digital media and unimodernism (2000 to 2050). Introduction to concept of interactivity and field of media art that follows history of computer as media for artistic ex-
ploration in relation to print, animation, and interac-
tivity. Discussion of potential and ideas relating to in-
teractivity, with focus on required skills for creating in-
teractive work. Development of programming skills in
service of creating examples of media art. Concepts and
skills taught enhance students’ 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.
15. Interactivity. (4) Studio, six hours; outside study, six hours. Required of Design | Media Arts majors. Introduction to concept of interactivity and field of media art that follows history of computer as media for artistic ex-
ploration in relation to print, animation, and interac-
tivity. Discussion of potential and ideas relating to in-
teractivity, with focus on required skills for creating in-
teractive work. Development of programming skills in
service of creating examples of media art. Concepts and
skills taught enhance students’ 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. Lim-
ited to 20 students. Design as adjoint 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.
17. Studio 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-
geraduate 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 re-
quired of Design | Media Arts majors. Survey of media arts, their history, aesthetics, and cultural roles from
late-19th century to present. Investigation of media
arts within broad historical and cultural framework.
Discussion of parallels and links with other cultural
forms, including history of technology and various art
and design practices. P/NP or letter grading.
104. Design Futures. (5) Lecture, three hours; out-
side study, 12 hours. Preparation: completion of prepara-
tion for major courses. Open to nonmajors with consent of instructor. Critical examination of de-
sign practice and theory of 20th and 21st centuries,
incorporating historical as well as speculative meth-
odologies. Consideration of how various design prac-
tices and techniques related to each other across cul-
tures and media, with strong emphasis on communi-
cation design. P/NP or letter grading.
152. Tangible Media. (5) Studio, six hours; outside study, nine hours. Required courses: classes 22, 28, and 101 or 104. Through workshops, readings, lectures, cri-
tiques, and discussions, reevaluation of role of

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desktop computers (and their mice, trackpads, key-boards, screens, and gamepads) play in forming our understanding of what is technically possible, sen-sible, logical, foolish, magical, and intuitive.

153. Video. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: courses 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 sequencing. Software for video communication. P/NP or letter grading.

154. Word + Image. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: courses 101 or 104. Use of word processing and image manipulation to create electronic documents, using three-dimensional visualization and video tools. Topics include: word and image programs; use for motion to use constructed 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 prepara-tion for major courses. Requisites: courses 24, 28, and 49. Introduction 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, multiplayer strategy, com-plexity, randomness, poetics, narrative, physical in-teraction, and aesthetic and pragmatic aspects of play design. P/NP or letter grading.

159A-159B/159C. Capstone Senior Project. (5–5–5) Studio, six hours; outside study, nine hours. Prepara-tion: completion of preparation for major course. 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. Requisites: 15A, 159A, 104, 105, 161, and 160, 171, 172, or 173. Interactive media, including game design, interactive installa-tions, game design, game balance, player strategy, com-plexity, randomness, poetics, narrative, physical in-teraction, and aesthetic and pragmatic aspects of game design. P/NP or letter grading.

189A-195B. Community or Corporate Internships in Design | Media Arts. (2–4) Seminar, four hours. Designed for students interested in or concerned with art or design-related topics or organizations. Topics announced in advance. May be repeated for credit. Individual contract required. Letter grading.

195A-195B. Community or Corporate Internships in Design | Media Arts. (2–4) Seminar, four hours. Designed for students interested in or concerned with art or design-related topics or organizations. Topics announced in advance. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

200. Design | Media Arts Faculty Seminar. (2) Seminar, two hours. Limited to graduate design | media arts students. Designed to familiarize new graduate students with departmental faculty members and their creative work and research to help students select their faculty advisers. S/U grading.

252A. Programming Media 1. (3) Studio, three hours; outside study, six hours. Limited to majors. In-trroduction to computer programming within context of art and design. Exploration of conceptual space enabled by electronic media through exercises, pre-sentations, discussions, and critiques. Weekly exer-cises balance concept and technique to reveal poten-tial of computer as medium and tool. Experience with programming basics includes procedural and object-oriented programming, two- and three-dimensional graphical display, file I/O, color models, and image pro-cessing. 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 electronic media to create custom in-terface design, microcontroller programming, and building kinetic and interactive physical artifacts. Retention of electronic modeling, programming for em-bedded systems, two-dimensional and three-dimen-sional CAD, basic milling, laser cutting, mold making, circuit building, and other sculptural electronics fabri-cation techniques. Letter grading.

269. Graduate Seminar. (4) Seminar, four hours. De-sign 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 guest critics. Must be taken twice for MFA degree. May be repeated for credit with consent of adviser. Letter grading.

272. Introduction to Art | Science. (5) Seminar, three hours. For past 50 years artists have increasingly relied on science to innovate new images and discovery to actually collaborating with scientists and even residing and working in science laboratory-ries. History of science in relation to artists' interpreta-tion of scientific work to creating art. Theme that is cre-ated in response to recent developments in biotech-nology and nanotechnology. Letter grading.

289. Special Topics in Media Arts. (3) Seminar, one and one half hours; seven and one half hours ar-ranged. 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 credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice person-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.

403. Graduate Critique. (2) Seminar, three hours; outside study, three hours. Open to first- and second-year departmental graduate students. Students meet with instructor in small classroom setting to exchange ideas through presentation of current projects and research discussion. Weekly readings, dis-cussions, and critiques. Weekly assignments and reports. Instructors may invite visiting critics to contribute. May be repeated for credit. S/U grading.

404. Graduate Tutorial. (3) Tutorial, three hours; out-side study, six hours. Limited to first- and second-year departmental graduate students. Development of body of work while working toward MFA degree, with one-to-one interaction between students and faculty members. May be repeated for credit. Letter grading.

495. Teaching Assistant Training Practicum. (2) Seminar, three hours; outside study, three hours. Forum for first-year teaching assistants for discussion and exchange of teaching strategies and classroom mechanics. Problems and practices of teaching de-sign at college level, as well as role of teaching assis-tants within department. Designed to help new teaching assistants develop teaching skills and to orient them to department and University policies and resources. May not be applied toward degree require-ments.

597. Preparation for MFA Comprehensive Exam-ination. (4 to 8) Tutorial, to be arranged. Designed for second-year MFA students to prepare for comprehen-sive examination. May be repeated for credit with consent of adviser. S/U or letter grading.
**DIGITAL HUMANITIES**

**Interdisciplinary Minor**

**College of Letters and Science**

212 Royce Hall
Box 951539
Los Angeles, CA 90095-1539

Digital Humanities
310-825-1147

Minor e-mail

Todd S. Presner, PhD, Chair

**Faculty Committee**

Jon A. Christensen, PhD (Environment and Sustainability)
Dana Cuff, PhD (Architecture and Urban Design, Urban Planning)
Maria (Maite) T. de Zubiaurre, PhD (German Languages, Spanish and Portuguese)
Johanna R. Drucker, PhD (Design/Media Arts, Information Studies)
F. Tobias Higbie, PhD (History)
Christopher Johanson, PhD (Classics)
Christopher M. Kelty, PhD (Anthropology, Information Studies, Society and Genetics)
Stephen D. Mamber, PhD (Film, Television, and Digital Media)

**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 Architecture and Urban Design M125B), M125C (or Architecture and Urban Design M125C), M145A, M145B, M145C, M150 (or Anthropology CM1100), Anthropology M116R (or Chinese M183), Architecture and Urban Design 132, Armenian C153, Art History C145A, C145B, Classics 164, 166B, Design/Media Arts 104, Digital Humanities 151, 195 or 196, English 118A, History 188, Korean 183, 187, Russian 121, 129, Scandinavian C133A, C171, 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 discovery at UCLA. P/NP grading.

- **30. Los Angeles Tech City: Digital Technologies and Spatial Justice.** (5 Lecture, two and one half hours; studio, two hours. Investigation of spatial justice and injustice in multi-ethnic city of Los Angeles through lens of three thematic technologies that built and transformed Los Angeles into global metropolis: cars and highways, networking technologies culminating in Internet and World Wide Web, and film and broadcast media. Use of innovative forms of investigation and communication, from digital mapping to video-sensing, to integrate interpretative and historical approaches of humanities with material and proactive practices of design. Letter grading.

**Upper-Division Courses**

- **101. Introduction to Digital Humanities.** (5 Lecture, four hours; discussion, one hour. Foundation course for students in Digital Humanities minor, providing theoretical and conceptual framework for understanding genesis of digital world. Use of contemporary cultural-historical 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 notion of spatial equity in context of Los Angeles, exploration of how certain spatial technologies such as geographic information systems (GIS) cartography, mobile telephony, real-time data collection, social media, digital databases, and interactive web platforms can be deployed to research and document urban experience. 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 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 Digital Humanities minor is a 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 learn to 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.
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 195 or 196. 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 Apprenticeship in Digital Humanities. (2) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

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 changes posed by digital humanities through number of specific projects that address fundamental problems in creating, interpreting, preserving, and transmitting human cultural record. How digital media and tools, ranging from map visualizations and modeling environments to database structures and interface design, are arguments that make certain assumptions about, and even transform, objects of study. Letter grading.

250. Special Topics in Digital Humanities. (4) Seminar, three hours. Enforced requisite: course 201. Introduction to advanced research method or thematic issue in digital humanities, such as digital textual analysis, digital mapping, database and visualization technologies, or social media technologies. Acquisititon 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.

S96. 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

A316 Murphy Hall
Box 951430
Los Angeles, CA 90095-1430

DISABILITY STUDIES

Disability Studies Minor

A316 Murphy Hall
Box 951430
Los Angeles, CA 90095-1430

Disability Studies 310-206-1667
E-mail contact
Victoria E. Marks, BA, Chair
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Bruce L. Baker, PhD (Psychology)
Anurima Banerji, PhD (World Arts and Cultures/Dance)
Helen Deutsch, PhD (English)
Victoria E. Marks, BA (World Arts and Cultures/Dance)
Mary J. O’Connor, PhD (Psychiatry and Biobehavioral Sciences)

Scope and Objectives

The Disability Studies minor introduces 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-semester internship or research apprenticeship, and a senior capstone project, students in the minor obtain both breadth and depth in their understanding of the concept and practical implications of disability.

Undergraduate Study

Disability Studies Minor

To enter the Disability Studies minor, students must (1) have an overall grade-point average of 2.7 or better and (2) submit an application essay supporting their interest in pursuing the minor. To help plan the internship and course schedule, students are expected to work closely with the minor’s academic adviser. Applications are available on the minor website and must be filed with the major’s adviser.

Counseling, A316 Murphy Hall. For information and questions, contact the department adviser by e-mail or call 310-206-1667.

Required Upper-Division Courses (13 to 15 units): Disability Studies 101 or 101W and three courses selected from 102 through 187.


Required Upper-Division Internship/Apprenticeship Courses (8 units): Two consecutive terms of internship or research apprenticeship (Disability Studies 195CE or 196) in a community-based agency that provides services or support for persons with disabilities or in an institution or agency at the local, state, or federal level responsible for policy on disability issues or collaboration on a research project focused on an area of disability studies scholarship. Internship credit for students participating in the UC Center Sacramento (UCCS) program or the Center for American Politics and Public Policy (CAPP) program may be substituted by petition and is subject to approval by the faculty committee.

Required Upper-Division Capstone Courses (5 to 6 units): Disability Studies 191 or 198A and 198B or 199A and 199B. Prior to enrolling in any capstone option, students must complete Disability Studies 101 or 101W, two upper-division electives, and at least one term of an internship or apprenticeship.

The capstone experience for the minor requires an integrative final paper or project that incorporates the required curriculum and elective courses. Students complete the capstone experience by enrolling in a senior research seminar (Disability Studies 191) or by enrolling in two-term independent study courses (198A and 198B or 199A and 199B) under the guidance of a faculty sponsor. The faculty sponsor approves the proposed readings as well as the length and scope of the final paper or project based on guidelines developed by the faculty committee of 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 intersections through modern art in the 19th and 20th centuries. Introduction of historical development and fundamental intellectual and ethical issues associated
with representation of disability in arts and humanities. Investigation of complex relationships between artistic and humanistic expression and this major facet of society and culture. Introduction of new methodological language and methods to build framework around how disability is represented. Proposal of modeling in an alternative way of knowing and how disability informs modern art by way of radical aesthetics of representation that challenges sociocultural norms. Consideration of potential methodologies in neuroethics, art and disability. Experience in art, outside and curatorial practices. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion thinking about top of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an independent research lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 12 hours with a 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 enroll for 1-2 units (excluding all Independent Study course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Perspectives on Disability Studies. (5) Lecture, one hour; discussion, two hours. Not open for credit to students with credit for course 101W. Creation of critical framework for understanding concept of disability. Overview of discipline in 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. Letter grading.

101W. Perspectives on Disability Studies. (5) Lecture, one hour; discussion, two hours. Enforced requisite: English Composition 3 or English as a Second Language 36. Not open for credit to students with credit for course 101W. Creation of critical framework for understanding concept of disability from sampling of disciplinary perspectives. Organized around productive and central tension in disability studies—between disability as lived subjective experience that is both individual and communal, and disability as objective, medical, legal, and sometimes stigmatized category. Students encouraged to make connections between units and to create their own perspectives on disability in field that defines itself by how it changes. Satisfies Writing II requirement. Letter grading.

102. Disability and Violence. (4) Seminar, three hours. Relationship between disability and violence from three angles: (1) review of disproportionate incidence of violence committed against people with disabilities, with a focus on hate crimes based on dependency and/or vulnerability that accompany some types of disability, (2) study of role of disability and particularly mental illness in representations of criminality and violence, and (3) disability or emergent disorder (injuries, illnesses, and impairments created by social inequality) as consequence of intersecting forms of racial, gender, sexual, and class subordination, or as result of state or interpersonal violence. Consideration of possible coalition-based strategies for challenging systemic subordination and promoting disability-consciousness across social movement efforts and campaigns. P/NP or letter grading.

103. Studies in Disability Literatures. (5) Same as English M103.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Course is an introduction to disability studies, race, gender, and disability; disability narratives; etc. May be repeated for credit with topic or instructor change. P/NP or letter grading.

110. Disability and Popular Culture. (4) Lecture, four hours. Drawing from disability studies, media studies, and theories of representation, examination of increasing visibility of people with disabilities in popular culture. How disability is represented and who gets to represent it. Analysis and critique of representations of people with disabilities in late 20th and early 21st century cinema and television to understand functioning of representation in popular culture. Development of critical media literacy skills. P/NP or letter grading.

111. Disability as Spectacle: Performing Nonnormative Bodies. (4) Lecture, two hours; studio, two hours. Examination through eyes of disability activists and advocates of disability performance and practices. 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.

114. Varying Perspectives on Disability Studies. (4) Same as Theater M114.) Lecture, four hours. Analysis and critique of depiction of disability in theater. Topics may include introduction to disability studies, race, gender, and disability; representation of disability in theater; and more. May be repeated for credit with topic or instructor change. P/NP or letter grading.

115. Enforcing Normalcy: Deaf and Disability Studies. (4) Same as American Sign Language M115.) Lecture, three hours. Exploration of historical, social, medical, political, philosophical, and cultural influences that have constructed 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 throughout 19th and 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.

120. Special Topics on Race and Disability. (4) Lecture, four hours. Exploration of race and disability, with emphasis on lived realities of people of color with disabilities. Use of scholarly texts from disability studies, sociology, gender studies, or critical race studies to investigate intersectional mechanisms and systems that shape race, ableism, and dominant/non-dominant power dynamics. P/NP or letter grading.

121. Topics in Gender and Disabilities. (4) Same as Gender Studies M121.) Lecture, three and one half hours. Limited to juniors/seniors. May be repeated for credit with topic and instructor change. P/NP or letter grading.

122. Bodies in Antiquity. (4) Same as Classics M149.) Lecture, three hours. Investigation of individuals and Roman groups that have with larger social body, with particular focus on marginalized and minority groups such as citizens (resident aliens and provincials), slaves, children, el- derly, and disabled. Examination of ways these groups contributed to or detract from our understanding of ancient society as whole. May be repeated for credit with topic change. P/NP or letter grading.

125. Exploring Intersections of Ability and Sexuality. (4) Same as Gerontology M165 and Social Welfare M165.) Lecture, three hours. Overview of identity as means of understanding social formations, dominant/non-dominant 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 investigate 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 Education: Implications for Educators and Advocates. (4) Lecture, three hours. Examination of issues of dis- ability in K-12 schooling and social and historical context of special education policy implementa- tion. 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. Topics may include introduction to disability studies, race, gender, and disability; representation of disability in theater; and more. May be repeated for credit with topic or instructor change. P/NP or letter grading.

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 to later status as marginalized minority and/or global epidemic. Examination of material sourced from various fields and disciplines invested in autism, including psychology, neuroscience, arts and humanities, popular media, philosophy, art, and critical autism studies. Students encounter and analyze multiple perspectives on autism and put them in conversation with one another. Attention paid to ways in which we define, explain, and represent our own experiences of autism and discussion of what ramifications of these multiple framings are in context of autism intervention strategy and disability policy today. Letter grading.

145. Mental Disability Law. (4) Lecture, three hours. Examination of definitions and some characteristics of those conditions that legal systems recognize as mental disabilities. Review of evolution of these defini-
tions through U.S. and Western histories, with focus on role conceptions of mental illness has played in various racial, gendered, and economic regimes. Ex-
ploration of how U.S. legal system takes to address needs, vulnerabilities, and rights of people with disabilities and of people with mental dis-
babilities. Discussion of some key challenges and con-
troversies fueled by new technologies and practice this area and varying strategies for engaging those challenges. P/NP or letter grading.

M148. Sociology of Mental Illness. (4) Same as Sociology M148.) Lecture, three hours; discussion, one hour. Analysis of major sociological and social psych-
ological 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 Sociology M120.) Lecture, four hours. Examination of disability-related issues impacting people of all ages across wide spectrum of settings in both public and private sectors—from preschool to higher education, from military to workplace, and from intensely urban environments to online and virtual worlds. Topics range from persistent and recurring disputes to novel contro-
versies fueled by new technologies and changing times. P/NP or letter grading.

150. Human Rights, International Development, and Disability. (4) Lecture, three hours. Basic intro-
duction to international human rights, sociology of de-
velopment, and contemporary rights-based develop-
ment theory and practice. International disability rights movement to serve as case study, following passing of major U.N. convention on Rights of Persons with Disabilities in 2006 to changes on ground in de-
veloping countries that are occurring today. Offered in summer only. P/NP or letter grading.

M157. Rechoereographing 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 body in/by disability artists, filmmakers. P/NP or letter grading.

M161. Sports, Normativity, and Body. (4) Same as Gender Studies M161.) Lecture, four hours. Since creation of International Olympic Committee in 1894, athletes with disabilities have had, and been denied, formal opportunities to compete with able-bodied athletes. Overview of some major topics of discussion concerning interventions of athletic competition and disability, addressing variety of perspectives and themes on disability and sport, such as passing, sport, representation versus charity, and masculinity. Sources include readings, film, television, and biographical writings that address sports, body and disability generally, and Special Olympics specifically. P/NP or letter grading.

M164A. Documentary Production for Social Change: Mobility in Los Angeles. (5) Same as Urban Planning M164A.) Lecture, three hours; fieldwork, two hours. Exploration of documentary film making as catalyst for social change, using daily commu-
rate in Los Angeles as case study. Introduction to is-
ues of race, ethnicity, gender, disability, and class on experiences of disability. Study of transpor-
tation, and car-based versus alternative (bike and pedestrian) forms of commuting. Exposure to obser-
avational, interview, and participatory documentary shooting and editing techniques, as well as social marketing strategies that are vital to document-
tory production and distribution. Letter grading.

M164B. Documenting Dis/Ability on Film. (4) Lec-
ture, four hours. Nonfiction digital media is used as con-
temporary form of investigation or research or is at-
tached to research projects, built into websites, used in campaigns for social and political activism, and exhibited at film festivals. Social-issue documen-
taries appear more frequently on cable, public television, and Internet. Examination of how powerful doc-
umentaries still rely on well-told stories by passionate filmmakers. P/NP or letter grading.

M166. Future of Humanity: Bioethics of Health and Disability. (4) Same as Society and Genetics M166.) Lecture, three hours; discussion, one hour. Should parents choose to have abortion if their fetus will likely have disability? Should people who are born with a disability and/or their own life through physician-aided dying? Is disability form of human variation we can live well with, disease we should eliminate, or mistake we should cut out of genetic code? Questions such as these will be investigated, and in context of critical discussions of topics including human re-
production, genetic manipulation, and end-of-life treatment and care. Consideration of concepts such as freedom, kinship, dignity, advocacy, equal rights, and good life to challenge how we think of modern humanity, structure of our world, and how we live our lives. P/NP or letter grading.

M171. Philanthropy: Confronting Challenges of Serving Disabled. (Formerly numbered 171.) (Same as Honors Collegium M170.) Lecture, three hours. Enforced requisite: course 101 or 101W. Study of history, philosophy, and practice of philanthropy—using lens of disability studies theory in conversation with important themes of charity, paternalism, and systems of dependency. Analysis of multiple perspec-
tives of disability-related giving, with focus on experi-
ting priorities and making philanthropic investments in Los-Angeles-based nonprofit organizations serving people with disabilities. Letter grading.

M183. Being Human: Identity in Age of Genomics and Neurotechnologies. (5) (Formerly numbered M183.) Seminar, three hours. Exploration of relation-
ship between identity and mental illness through dif-
ferent approaches to nature and treatment of mental disorder, from biomedical accounts of brain-based pathology (and identity) to Mad Pride movement em-
phasis on mental diversity. Enduring philosophical questions regarding personal identity, consciousness, selfhood and body—relationship are investigated through consideration of conditions such as dissociative identity disorder, trauma, psychosis, autism, and depression. P/NP or letter grading.

187. Special Topics in Disability Studies. (4) Lec-
ture, one hour; discussion, two hours (when sched-
uled). Variable topics in one area within disability stud-
es may be repeated for credit with topic and/or instruc-
tor change. P/NP or letter grading.

189. Advanced Study in Disability Studies. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-
dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-
signed as adjunct to upper-division lecture course. In-
dividual study with lecture course instructor to explore topics in greater depth through supplemental read-
ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re-
quired. Honors content noted on transcript. Letter grading.

191. Variable Topics Senior Research Seminars: Disability Studies. (5) Seminar, three hours. Enforced requisite: course 101 or 101W. Designed for ad-
vanced junior/senior Disability Studies minors. In-
dependent study of major research 191A. Course 191A re-
search. Themes vary by instructor and term. Students pursue independent research related to course topic and prepare and present findings to class 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 of stu-
dents pursuing Disability Studies minor. Integration 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 their project and the field. May be repeated for credit. P/NP or letter grading.

195CE. Community and Corporate Internships in Disability Studies. (4) Tutorial, to be arranged: field-
work, eight to 10 hours. Limited to juniors/seniors. In-
ternship in corporate, governmental, or nonprofit set-
tings connected through faculty mentorship in Community Learning. Students complete weekly written assign-
ments, attend biweekly meetings with graduate stu-
dent coordinator, and write final research paper. Fac-
ty 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-
tulty mentors on their research in area related to dis-
bility studies. May be repeated for credit. Individual contract required. Letter grading.

198A-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 junior/senior Disability Studies minors for students purs-
ing 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-
hensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199A-199B. Directed Study in Disability Studies. (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 for Disability Studies minor for students purs-
ing 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 (199A) and letter (199B) grading.

199C. Senior Project in Disability Studies. (2 to 8) 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.

199HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-
signated as adjunct to upper-division lecture course. In-
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. SU grading.

EARTH, PLANETARY, AND SPACE SCIENCES
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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 isotope and trace element analyses, petrology and mineralogy, sedimentology, paleobiology and organic geochemistry, structural geology and tectonophysics, seismology, the Earth’s interior, planetary physics, and space plasmas.

The variety of techniques applied lead to several concentrations within the three main disciplines. Students completing their studies with a BS or MS degree usually are employed by industry. Many are employed in environment-related activities; others are involved in mineral or oil exploration or in construction. Students attaining the PhD degree are usually employed by universities or governmental and industrial research groups.

The Bachelor of Arts program in Earth and Environmental Science is intended to provide a broad background in Earth sciences that is especially appropriate for students intending to become K through 12 teachers in Earth, physical, or life sciences. It may also be of interest to students who plan careers in business, dentistry, environmental sciences, government, journalism, law, medicine, or public health. Those who intend to become professional geologists, geochemists, or geophysicists and/or to continue into graduate studies in Earth or space sciences are urged to pursue one of the BS degrees.

Undergraduate Study
All of the majors offered in the Earth, Planetary, and Space Sciences Department are designated capstone majors. While the specific nature of the capstone experience varies by major, students are required to use skill and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Earth and Environmental Science BA
Capstone Major

Learning Outcomes
The Earth and Environmental Science major has the following learning outcomes:

- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results

Preparation for the Major
Required: Earth, Planetary, and Space Sciences 1, 5, or 8 or 13 or 15 or 16 or 17 or 20, 51, 61; Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L; Life Sciences 1 or another introductory 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, 115, 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, 4A, 4B, 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 1, 51, 61, 71; Chemistry and Biochemistry 14A, 14B, and 14BL or 20A, 20B, and 20L; Life Sciences 1; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 4AL, and 4BL, or 5A and 5B. Each course must be passed with a minimum grade of C–.

Transfer Students
Transfer applicants to the Geophysics major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one year of calculus, and two general chemistry courses with laboratory for majors.

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

The Major
Required: Earth, Planetary, and Space Sciences 103A, 103B, 111, 112, M118 (or 136A); two courses from 103C, 116, and 133; two capstone field research courses (121, 121F); two additional 100-level department courses.

Geophysics BS
Capstone Major
Learning Outcomes
The Geophysics major has the following learning outcomes:

- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results

Preparation for the Major
Required: Earth, Planetary, and Space Sciences 51, 61, 71, and one course from 1 (preferred) through 15; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4A, 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 1, 51, 61, 71; Chemistry and Biochemistry 14A, 14B, and 14BL or 20A, 20B, and 20L; Life Sciences 1; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 4AL, and 4BL, or 5A and 5B. Each course must be passed with a minimum grade of C–.

Transfer Students
Transfer applicants to the Geophysics major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one 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.

Earth and Environmental Science Minor
In the Earth and Environmental Science minor students study the interaction of the solid Earth, oceans, and atmosphere with human activities. The minor provides background in Earth sciences that is especially appropriate for students intending to become K through 12 teachers in Earth, physical, or life sciences. It may also be of interest to students who plan careers in business, dentistry, environmental sciences, government, journalism, law, medicine, or public health.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (8 units):
Earth, Planetary, and Space Sciences 1, one course from 5, 13, 15, or 61.

Required Upper-Division Courses (20 units minimum): Five courses from Earth, Planetary, and Space Sciences 101, 112, C113, 139, 150, 153. A minimum of 20 upper-division units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Geochemistry Minor
Geochemistry emphasizes use of minerals, magmas, elements, and isotopes to date events, determine rates, and track matter through its cycles in the planets and biosphere. These skills are valuable in environmental and natural-resource work and anthropology, as well as in studying the histories of the planets.

To enter the Geochemistry minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (8 units):
Earth, Planetary, and Space Sciences 1, 51.

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, C106 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 mi-
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.

To enter the Geophysics and Planetary Physics minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (12 units): Earth, Planetary, and Space Sciences 1, 8, 9.

Required Upper-Division Courses (20 units): Earth, Planetary, and Space Sciences 136A, 171, and three courses from M140, 152, 153, 154, 155.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

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

Graduate Degrees
The Department of Earth, Planetary, and Space Sciences offers Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Geochemistry, Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Geophysics and Space Physics.

Earth, Planetary, and Space Sciences

Lower-Division Courses
1. Introduction to Earth Science. (5) Lecture, three hours; laboratory, two hours; field days. Not open to students with credit for or currently enrolled in course 100. Elements of Earth science; study of Earth materials; nature and interpretation of geologic evidence; study of geologic processes and history. Mandatory field trips introduce students to solving of geologic problems in field. P/NP or letter grading.

2. Meteorology. (5) Lecture, three hours; discussion, one hour; two field days. Origin, evolution, distribution, and future of life on Earth and in universe; parallel major scientific initiatives of NASA. Course material primarily from planetary and Earth science, palaeontology and biology, astronomy, chemistry, and physics, with relatively little from mathematics. P/NP or letter grading.

3. Astrobiology. (5) Lecture, three hours; discussion, one hour; two field days. Origin, evolution, distribu- tion, and future of life on Earth and in universe, par- alleling major scientific initiative of NASA. Course mate- rial primarily from planetary and Earth science, palaeontology and biology, astronomy, chemistry, and phy- sics, with relatively little from mathematics. P/NP or letter grading.

5. Environmental Geology of Los Angeles. (4) Lec- ture, three hours; discussion, two hours; field trips. Geologic hazards and natural resources of greater Los Angeles region. Topics include Los Angeles geo- logic hazards such as earthquakes, landslides, and floods; Southern California oil fields; gold and gem mining in region; local beach processes; and Los An- geles water resource problems. Field trips to San An- dreas fault, California aqueduct, active landslides, and historic gold mines. P/NP or letter grading.

M7. Perils of Space: Introduction to Space Weath- er. (4) Formerly numbered Atmospheric and Oceanic Sciences M7.) Lecture, four hours. Con- cepts of plasma physics, dynamic sun, solar wind, and Earth magnetosphere, interaction of space environ- ment, solar storms and substorms and their impacts on iono- nauts, spacecraft, and surface power and communi- cation grids. P/NP or letter grading.

8. Earthquakes. (5) Lecture, three hours; laboratory, one hour; one field day. Causes and effects of earth- quakes. 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.


13. Natural Disasters. (5) Lecture, three hours; dis- cussion, 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 earth- quakes, volcanos, and tsunamis. Global climate change combines with variety of geologic processes to create enhanced risks from catastrophic mass movements (e.g., landslides, mud flows, avalanches, 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 Course 25. General introduction to geology, physical, chemical, and biological processes and history of Earth’s global ocean system. P/NP or letter grading.


17. Dinosaurs and Their Relatives. (5) Lecture, three hours; laboratory, two hours; one optional field trip. Designed for nonmajors. Exploration of biology, evolution, and extinction of dinosaurs and close relatives, in context of history of biosphere. Information from paleontology, biology, and geology. P/NP or letter grading.

19. Fall Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about 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 weekends. Identification, distribution, diversity of na- tive plants and communities; identification and inter- pretation 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.

51. Mineralogy: Earth and Planetary Materials. (5) Lecture, three hours; laboratory, four hours. Enforced requisite: course 1. Recommended: completion of chemistry requirement. Principles of mineralogy. Min- eral structure and bonding and crystal chemistry, with focus on materials of interest for Earth and planetary sciences and major rock-forming minerals. Labora- tory study of relationship between mineral structure and properties, including hand sample identification, microscopy (optical and electron), and spectroscopy techniques. P/NP or letter grading.

61. Geologic Maps. (4) Lecture, two hours; labora- tory, three hours; five field days. Enforced requisite: course 1. Planning, creation, interpretation of geologic maps, including both practical and philo- sophical problems that arise. Topographic and geo- logic mapping in field. Interpretation of published maps in laboratory. P/NP or letter grading.

Introduction to Computing for Geoscientists. (4) Lecture, three hours; laboratory, three hours; outside computing study, three hours. Introduction to writing programs in MATLAB, visualization of geosci- ence data, and comparison with models. 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 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. May 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 (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 complete 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Principles of Earth Science. (4) Lecture, three hours. Designed for nonmajors. Not open to students with credit for course 1. Fundamentals of physical geology and Earth history; major problems of geology, such as plate tectonics; and development of basis for scale features of Earth; physical and biological evolution. P/NP or letter grading.

101. Energy's Economy: Diminishing Fossil Resources and Prospects for Sustainable Future. (4) Lecture, three hours; laboratory, two hours; two optional field trips. Preparation: one lower-division atmospheric sciences, chemistry, Earth sciences, or physics course. Earth, atmosphere, and hydrologic cycles originating from Earth science and sustainability perspective. P/NP or letter grading.

103A. Igneous Petrology. (5) Lecture, two to three hours; laboratory, six hours; field trips. Enforced requisites: course 1. Recommended: course 102B, 111, or 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, moon, and other planets from their origin to present. P/NP or letter grading.

103B. Sedimentary Petrology. (5) Lecture, two to three hours; laboratory, six hours; field trips. Enforced requisites: course 1. Recommended: course 102B. Study of sedimentary rocks based on characteristics of sedimentary particles and dynamics of depositional processes and environments. Laboratory 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 of course 1. Recommended: course 102B, 111, or 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, moon, and other planets from their origin to present. 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 81, 112. Principles of stratigraphy; geologic mapping of selected area; preparation of geologic report. Letter grading.

111G. Field Geology. (2 to 4) Lecture, two hours; laboratory, three hours; fieldwork, one day per week. Designed for graduate students. Geologic mapping, principles of soil science, geology, and map interpretation. S/U or letter grading.

112. Structural Geology. (5) Lecture, three hours; laboratory, six hours. Requisites: courses 1, 61. Recommended: cognitive structures at different scales in sedimentary, metamorphic, and igneous rocks. Faults and folds, their description, classification, and kinematic and dynamic analysis. Deformation, strengthening, and rheological properties of rocks. P/NP or letter grading.

113. Biological and Environmental Geochemistry. (4) Lecture, three hours. Requisites: Chemistry 1A and 1B or 20A and 20B, Mathematics 3A, 3B, and 3C (or 31A and 31B). Recommended: at least one lower-division Earth, planetary, and space sciences course. Intended for junior/senior life and physical sciences students. Study of chemistry of Earth's surface, interplay and interplay between biology, human activity, and geology. Introduction to origin and composition of Earth, including atmosphere, 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 such as carbon, nitrogen, and phosphorus. Concurrently scheduled with course C113. P/NP or letter grading.

114. Aquatic Geomicrobiology. (4) Formerly numbered C114.) (Same as Atmospheric and Oceanic Sciences 145B.) Lecture, three hours; discussion, one hour. Recommended requisite: course C107 or Atmospheric and Oceanic Sciences M105. Fundamental geomicrobiological metabolisms and biogeochemical reactions occurring in aquatic systems, how they impact them, and how they interact with other systems, in complex ecosystems such as methane seeps, hydrothermal vents, coral reefs, microbial mats, or deep biosphere. Metabolisms include different photosynthetic, heterotrophic, and chemoheterotrophic pathways. Interpretation of geochemical profiles and understanding of how microorganisms govern mineralization and element cycling in aquatic systems. Concurrently scheduled with course CM214, P/NP or letter grading.


118. Advanced Paleontology. (4) Same as Ecology and Evolutionary Biology M145.) Lecture, three hours. Requisite: course 116 or Ecology and Evolutionary Biology 110 or 117. Consideration of major factors that have influenced history of life, including analytical approaches to analyzing patterns in fossil record, nature of rock record, and contribution of data from stable isotopes, functional morphology, phylogenetics, and developmental biology. P/NP or letter grading.


120. Rubey Colloquium: Major Advances in Earth, Planetary, and Space Sciences. (4) Lecture, three hours; discussion, two hours; field days. Recommended requisite: Mathematics 31A, 31B, or 14A (or 1AH). Recommended: course 71, Mathematics 33B. Earth mantle and core. Elasticity, seismic wave equation, ray theory, travel time inversion, surface waves, free oscillations. Earthquakes and source theory. P/NP or letter grading.


123. Geosciences Outreach. (4) Lecture, two hours; discussion, two hours; field days. Recommended requisite: at least three college-level life sciences or physical sciences courses. Introduction to pedagogical approaches and methods used in geosciences community to educate demographically diverse populations, including K-12 through higher-education au- diences and general public. Focus on development of motivational and public communication skill sets as practiced at outreach events and demonstrations, in- cluding communication of science in multicultural set- tings. Active participation required. Enforced requisite: three scheduled outreach events over course of term, providing perspective and basis for follow-up discus- sions. Concurrently scheduled with literacy at local, state, and national levels. Letter grading.

125. Volcanoes. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: course 1. Recom- mended: course 103A, Physics 1A or 1AH or 6A. Topics in volcanism. Introduction to local and regional volcanic plumbing, explosive and effusive eruptions as illustrated by historical examples. Practical methods of volcano monitoring, with field trip. P/NP or letter grading.

126. Advanced Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Enforced requisite: course 103A. Understanding genesis of igneous rocks based on geochemical, tectonophysical, and other geological evidences. Concurrently scheduled with course C226. P/NP or letter grading.

130. Historical and Regional Geology. (4) Lecture, three hours; discussion, two hours; field trips. Requi- sites: course 61. Recommended: course 103B, 111, or 211. Principles of historical geology. Physical evolu- tion of Earth, especially North America. One area of Earth to be investigated in detail, with emphasis on its geologic evolution through time. Letter grading.


136C. Field Geophysics. (6) Lecture, three hours; discussion, one hour; laboratory, two hours; fieldwork, 10 hours. Enforced requisite: course 136A. Application of seismic, gravity, and electromagnetic, and other geophysical methods to geologic and engi- neering problems. Practical aspects of geophysical
exploration, including planning, data collection, data reduction, and interpretation. Fieldwork on unsolved problems (week-long field trip). P/NP or letter grading.

137. Petroleum Geology. (4) Lecture, three hours. Requisites: courses 61, 111. Geology applied to exploration for 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. Requisites: course 1 or 100. Recommended: course 111. Principles and practice of soil mechanics and foundation engineering in light of geologic conditions, recognition, prediction, and abatement of subsidence, landslides, earthquakes, and other geologic aspects of urban planning and subsurface disposal of liquids and solid wastes. P/NP or letter grading.


C141. Basin Analysis. (4) Lecture, three hours; laboratory, three hours. Requisites: courses 103B, 111. Mechanism of basin development, current and historical thermal subsidence, isostasy, subsidence analysis, quantitative basin modeling, sediment provenance, tectonic settings. Concurrently scheduled with course M131L. P/NP 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. Isostasy, plate tectonics, mantle convection, and geodynamics as discovered with tools of electrolysis, fluid mechanics, and thermodynamics. P/NP or letter grading.

153. Oceans and Atmospheres. (4) Lecture, three hours; discussion, one hour. Corequisites: 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; physical processes of planetary radiation and climate, energetics and dynamics of oceanic and atmospheric circulation systems. P/NP or letter grading.


155. Planetary Physics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, 32A, Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Formation of solar nebula; origin of planets and their satellites; comets, asteroids, and meteorites; celestial mechanics and dynamics; physics of planetary interiors, surfaces, and atmospheres. P/NP or letter grading.

156. Introduction to Space Plasma Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisite: Electrical Engineering 101A or Physics 110A. Seminar-type course on electromagnetic processes of ionized gases, with emphasis on fundamental processes relevant to laboratory, space, and astrophysical plasmas. Examples mostly from space, planetary, and astrophysical plasmas, stellar winds, planetary magnetospheres, and radiation belts. Other applications include materials processing, generation of coherent radiation, particle beams, and fusion energy production. Letter grading.

C160. Field Seminar. (2 to 6) Seminar, three hours; discussion, one hour; fieldwork, five to 20 days. Requisite: course 61. Field-based teaching seminar. Discussion forum that varies in focus from general geology through structure and tectonics, sedimentology, igneous and metamorphic petrology, volcanology, or other subspecialties. May be repeated for credit. Concurrently scheduled with course C260. P/NP or letter grading.


165. Tectonic Geomorphology. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 1 or 8. Recommended: courses 61, 119, Mathematics 31A. Interactions between tectonic, climatic, and surface processes shape landscapes over days, centuries, and millennia. Emphasis on tectonic and surface processes interact to govern landscape evolution. How landscapes can provide in-sights into physical and chemical surface processes, including bedrock weathering, stream drainage, hillslope transport, and river and glacial erosion. How tectonics, climate, and underlying lithology may influence those processes in landscapes. P/NP or letter grading.

171. Advanced Computing in Geosciences. (4) Lecture, three hours; laboratory, three hours. Enforced requisites: course 71, Mathematics 3A, 3B, and 3C or 31A and 31B and application of software to generate and test hypothesis with nonideal or incomplete data sets. Interpolation/extrapolation with graphics to generate hypothesis; forward modeling from fundamental equations to explore implications; probabilistic testing of models against data. Examples and exercises from Earth and space sciences. Introduction to software used in research and industry. P/NP or letter grading.

CM173. Earth Process and Evolutionary History. (6) (Same as Ecology and Evolutionary Biology CM173) Lecture, four hours; laboratory, three hours. Requisites: Chemistry 14A, 14B (or 20A, 20B), Life Sciences 1, 2, 3, 4 (or 3A, 3B, 3C, 7C or 7A and introductory course in geology). Exploration of relationships between physical processes, such as tectonics and climate, and how they affect surface and impact biology of Earth. Study of evolution of universe, Earth, and life, with integration of history of science, including Darwinian evolution and plate tectonics revolutions. Study of formation of matter offers tools to understand geologic process of climate and ecology of Earth. Past climate change to examine expected future human-influenced climate. Consideration of major events in history of life on Earth. Data and methods from geology, genetics, and geochemistry are integrated to reconstruct past events. This reveals how Earth processes shaped life and how life shaped Earth. Concurrently scheduled with course CM273L. Letter grading.

C179. Search for Extraterrestrial Intelligence: Theory and Applications. (4) Lecture, two hours; laboratory, two hours. Enforced requisites: Mathematics 115B, course 61, Field-based teaching seminar 71, Computer Science 31, Physics 110B, Program in Computing 10A. Search for extraterrestrial intelligence (SETI) is based on number of astronomical, mathe-matical, and computational principles. Coverage of fundamental concepts in these disciplines in context of SETI: abundance and architecture of extrasolar planetary systems; radio astronomy, including interstellar and intergalactic space; signal processing, including sampling theory and Fourier transforms; random processes, including Gaussian and Poisson statistics, and algorithm development. Development of observational program, acquisition of telescopic data, development of algorithms to analyze data, and writing of report on results. Concurrently scheduled with course C279. P/NP or letter grading.

188. Special Topics in Earth, Planetary, and Space Sciences. (4) Lecture/laboratory. De- signed to augment or replace departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. 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. Letter grading.

193A-193B-193C. Undergraduate Journal Club Seminar in Earth, Planetary, and Space Sciences. (1–1–1) Seminar, one hour. Limited to undergraduate students. Study of current topics in Earth, planetary, and space sciences, including participation in weekly departmental colloquium. May be repeated for credit. P/NP grading.

198. Honors Research in Earth, Planetary, and Space Sciences. (4) Tutorial, two hours. Limited to seniors. Individual research designed to broaden and deepen students' knowledge of some phase of Earth, planetary, and space sciences. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty mentor. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Earth, Planetary, and Space Sciences. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. May be repeated for credit. Concurrently scheduled with course C296. P/NP grading.

Graduate Courses

200A. Introduction to Geophysics and Space Physics I: Solid Earth and Planets. (4) Lecture, three hours. Requisites: Physics 105A, 110A, 112, 131. Geochemistry, cosmochemistry, and petroleum; geoelectronics; gravity field; seismology; heat transfer; thermal and mechanical evolution of mantle; core and geonatmospheres; lunar and planetary interiors. S/U or letter grading.


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 thermophysical properties, with emphasis on simple physical 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 knowledge. Emphasis is placed on interdisciplinarity known as planetary science. Communication between Departments of Earth and Space Sciences and Physics and Astronomy graduate students and faculty members. S/U or letter grading.


207. Geochronology. (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 chemical compositions 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. Geochmical 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; relation between heat, and mass diffusion and their simultaneous solution, Boltzmann/Matano analysis, multicompartment diffusion, closure theory; 40Ar/39Ar systematics and interpretive models, multidisciplinary knowledge, thermochronology. Letter grading.

211. Mathematical Methods of Geophysics. (4) Lecture, four hours. Prerequisites: Physics 105A, 110A, 112, 131. Recommended: Physics 132. Designed to provide mathematical methods of geophysics 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. Concentrates on needs with geophysics students encounter in their research. Letter grading.

213. Biological and Environmental Geochemistry. (4) Lecture, three hours. Prerequisites: Chemistry 13A and 14B (or 20A and 20B), Mathematics 3A, 3B, and 3C (or 31A and 31B). Recommended: at least one lower-division Earth, planetary, and space sciences course. Introduction to geochemical and physical sciences. Study of chemistry of Earth's surface environment and interplay between biology, human activity, and geology. Introduction to origin and compositions of Earth's atmosphere, lithosphere, and hydrosphere. Examination of how these reservoirs are affected by biological cycles and feedbacks to biogeochemical evolution and diversity. Local and global-scale movements of biogeochemically important elements like carbon, nitrogen, and phosphorus. Concurrently scheduled with course C113. S/U or letter grading.

214. Aquatic Geochemistry. (4) Formerly numbered C214. (Same as Atmospheric and Oceanic Sciences M214.) Lecture, four hours; discussion, one hour. Recommended requisite: course C107 or Atmospheric and Oceanic Sciences M105. Fundamental geochmical metabolic processes of aquatic ecosystems. Impacts of aquatic ecosystems on global cycles; processes that affect the environment; and how they interact in complex ecosystems such as methane seeps, hydrothermal vents, coastal reefs, microbial mats, or deep bioplausions. Metabolisms include autotrophic, heterotrophic, and chemoautotrophic. Pathways. Interpretation of geochemical profiles and understanding of how microorganisms govern mineralization and metal cycling in aquatic systems. Concurrently scheduled with course CM114. S/U or letter grading.

216. Evolutionary Biology. (4) Same as Ecology and Evolutionary Biology M216A. Lecture, two hours; discussion, two hours. Current concepts and topics in evolutionary biology, including microevolution, speciation, and ecological implications, analytical biogeography, adaptive radiation, mass extinction, community evolution, molecular evolution, and development of mechanisms of evolution. S/U or letter grading.

217. 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 Orbit 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. Prerequisites: one of the following: science courses in the earth sciences. Introduction to paleobiology. Topics may include the origin of life, the fossil record, phylogenetic relationships, and the paleoecology of ancient ecosystems. 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 geological mapping projects at research level. 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 seismo- logic; epicenter location; amplitude variations; seis- mograph theory; travel-time and frequency controls; foci conditions; surface wave analysis; microseisms and tsunamis. 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; variations of density and temperature with depth; thermal and compositional evolu- tion. S/U or letter grading.

226. Advanced Petrology. (4) Lecture, three hours; laboratory, three hours. Requisite: course 103A. Designed for graduate students. Understanding genesis of igneous rocks based on chemical, tectonophysical, and other geological evidence. Emphasis on petrologic principles. 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 dy- namic generation. Planetary core dynamics and core convection; mean field dynamos theory; kinematic dyna- mite theory; survey of modeling techniques and re- sults. S/U or letter grading.

229. 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 clima- dynamic topics. Topics include origin and evolution of atmospheres, paleoclimate of Earth and Mars, atmo- spheric thermodynamics, plane-parallel radiation 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, polyatomic transformations, isotypism, thermal and position disorder; survey of structures of common minerals, and relation of physical and chemical prop- erties to crystal structure. S/U or letter grading.

M290A-M290B-M290C. Seminars: Space Physics. (2–2–2) (Same as Atmospheric and Oceanic Sciences M275A-M275B-M275C.) Seminar, one hour. Problems of current interest concerning particles and fields in space. May be repeated for credit. S/U grading.

289. Seminar: Fluid Dynamics. (2) Seminar, one to two hours. Problems of current interest in fluid dynamics, with emphasis on geophysical applications. May be repeated for credit. S/U grading.

293A-293B-293C. Space Physics Journal Club. (1–1–1) Seminar, one hour. Limited to graduate space physics students in Earth, Planetary, and Space Sciences, Atmospheric and Ocean Sciences, and Physics and Astronomy Departments. Review of current space physics literature. May be repeated for credit. S/U grading.

295A-295B-295C. Current Research in Earth, Planetary, and Space Sciences. (1–1–1) Lecture, one hour. Limited to graduate Earth, planetary, and space sciences students. Seminars presented by outside speakers, staff, and/or graduate students describing current research. Written reports required. May be repeated for credit. S/U grading.

C296. Research Topics in Earth, Planetary, and Space Sciences. (1) Research group meeting, one to three hours. Designed for departmental students participating in research group. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. Concurrently scheduled with course C194. S/U grading.


298. Advanced Topics in Earth and Space Sciences. (2 to 4) Lecture, two to four hours. S/U or letter grading.

M370A. Integrated Science Instruction Methods. (4) (Same as Chemistry M370A and Physics M370A.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: one introductory lower-division year (including laboratory) each of chemistry, life sciences, and physics and at least two Earth science courses, preferably one with field experience. Classroom management, lesson design, assessment, history of science education. S/U or letter grading.

M370B. Integrated Science Instruction Methods. (4) (Same as Chemistry M370B and Physics M370B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: one course M370A or Chemistry M370A or Physics M370A. Application of learning theory to science instruction and classroom management, including use of technology, collaborative learning, laboratory safety, ethical issues, field experiences, and professional development. S/U or letter grading.

375. Teaching 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 Earth, Planetary, and Space Sciences. (2) Seminar, one hour; discussion, two hours. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. Special emphasis on integration of technology in classroom. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: 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 and/or Research. (2 to 12) Tutorial, to be arranged. May be repeated. S/U or letter grading.

597. Preparation for MS Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.

598. MS Research and Thesis Preparation. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.


**EAST ASIAN STUDIES**

**Interdepartmental Program College of Letters and Science**

10373 Bunche Hall
Box 951147
Los Angeles, CA 90095-1487

**East Asian Studies**
310-206-6571
Program e-mail

William Marotti, PhD, Chair

Faculty Committee
William M. Bodiford, PhD (Asian Languages and Cultures)
Michelle L. Carriger, PhD (Theater)
Tonquil Duthie, PhD (Asian Languages and Cultures)
Michael D. Emmerich, PhD (Asian Languages and Cultures)
Andrea S. Goldman, PhD (History)
Katsuya Hirano, PhD (History)
Burglind Jungmann, PhD (Art History)
Hui-Shu Lee, PhD (Art History)
Namhee Lee, PhD (Asian Languages and Cultures)
William Marotti, PhD (History)
Sean A. Metzger, PhD (Theater)
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 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 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.

**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
310-825-1680, Undergraduate Office
Undergraduate e-mail

Karen E. Sears, PhD, Chair

**Professors**

Michael E. Alfaro, PhD
Priyanga A. Amarasekare, PhD
Paul H. Barber, PhD
Daniel T. Blumstein, PhD
Donald G. Ruth, 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
Blaine 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 Cascarano, PhD
Martin L. Cody, PhD
Franz Engelmann, PhD
Arthur C. Gibson, PhD
Elma González, PhD
William M. Hamner, PhD
Henry A. Hesperinde, 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
In the respective disciplines.

Evolution and Marine Biology—provide more
remaining two majors—Ecology, Behavior, and
Evolution and Marine Biology. In both programs students apply theory and technique learned through four years of class-
room and laboratory experience to their own
independent projects. The main purpose of the

capstone is to provide a unique field experi-
ence 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, trouble-
shooting and completing the work, and writing
a publication-ready manuscript. They are also
expected to exhibit strong teamwork, prob-
lem-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 ex-
cellent background preparation for postgradu-
ate training in medicine and other health sci-
ences, in tracks leading to academic and pub-
lic service careers in biology, in biological
industries, and even in nonbiological careers
such as business, agriculture, and law. Empha-
sis 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 con-
cepts and principles across different levels of
biological organization, from molecules to
ecosystems
- Effective oral and written communication of
scientific information
- Demonstrated understanding of the pro-
cesses involved in new knowledge genera-
tion, including the scientific method, data
collection, and data analysis
- Ability to critically evaluate scientific con-
cepts presented in diverse media, from sci-
entific articles to the popular press

Preparation for the Major
Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A,
14B, 14BL, 14C, and 14D, or 20A, 20B, 20L,
30A, 30AL, and 30B; Life Sciences 30A, 30B,
and 40 or Statistics 13, or Mathematics 3A, 3B,
3C, and Life Sciences 40 or Statistics 13, or
Mathematics 31A, 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

courses—either in separate courses or repeti-
tions of the same course, are subject to dis-
missal 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 labora-
tory 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 cal-
culus-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, 108L, 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 Develop-
mental Biology C150/150AL or Physiological
Science 166 may be included. Students
with credit for Ecology and Evo-

dutionary 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, C135, 136, 137, M139 (or
Atmospheric and Oceanic Sciences
M105), 142, 144, M145 (or Earth, Plan-
etary, 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, 198A and 198B
(must take both), 199 (4 units), Life Sci-
ciences 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-

Undergraduate Study
Students may earn a Bachelor of Science de-
gree in one of three different majors within the
department: Biology (general biology); Ecol-
ogy, Behavior, and Evolution; and Marine Bi-
ology. The majors build on similar lower-
division introductory courses and differ primarily in
the upper-division requirements. The Biology ma-
jor is designed for students who desire expo-
sure to a wide range of biological subjects. The
remaining two majors—Ecology, Behavior, and
Evolution and Marine Biology—provide more
specialized instruction and strong preparation for
employment or subsequent graduate study in the
respective disciplines.
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 100H4A, 100H4B, or 100H4C, 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-division 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 ecology, behavior, and evolution units (three courses) from Anthropolgy 128A, Ecology and Evolutionary Biology 100, 113A, 113AL, 116, C119A, C119B, 120, 121, 122, C126, 128, 129, 130, 133, C135, 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 (FBQ), Marine Biology Quarter (MBQ), or preapproved equivalent (see undergraduate adviser)

5. At least 8 units (two courses) from Anthropology 128P, chemistry (except Chemistry and Biochemistry 188SA through 199; Chemistry and Biochemistry 153A and 153L are strongly recommended), Earth, planetary, and space sciences (geology only; except Earth, Planetary, and Space Sciences 188 through 199), ecology and evolutionary biology (except Ecology and Evolutionary Biology 188SA through 196)
A maximum of 8 units of the Ecology and Evolutionary Biology 198 series or 4 units of Ecology and Evolutionary Biology 199 may be applied toward the major. Credit for 199 courses from other departments may not be applied.

Courses offered as part of the Field Biology Quarter (FBQ) are open to all qualified students, but strict priority is given to students who are Ecology, Behavior, and Evolution majors, are graduating seniors, have taken a broad range of ecology, behavior, and evolution coursework, and have maintained a good grade-point average.

With consent of the instructors and department, students may enroll in 200-level courses and apply them toward major requirements.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Ecology, Behavior, and Evolution majors must earn a C- or better in each course taken as preparation for the major, and at least a 2.0 (C) overall average in all courses applied toward the major. Courses applied to upper-division major requirements must have a minimum of 4 units. A 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 and Marine Biology majors. It is strongly recommended that students complete Ecology and Evolutionary Biology 109 and 109L prior to applying for the Marine Biology Quarter. Contact the Undergraduate Advising Office for all requirements for the Marine and Field Biology Quarters.

**Marine Biology BS**

**Capstone Major**

The Marine Biology major is designed for students who wish to specialize in the area of marine sciences. Completion of this major provides students with both an excellent background in biology and specialization in various disciplines such as oceanography, subtidal and intertidal ecology, and physiology of marine organisms. Graduates are well prepared for postgraduate opportunities in the marine sciences, many other areas of biology, and medicine. The major provides valuable field experience with concomitant individual research opportunities in marine biology.

**Learning Outcomes**

The Marine Biology major has the following learning outcomes:

- Demonstrated broad knowledge of 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 substitute courses in either sequence.

Each core curriculum course must be passed with a grade of C- or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C- in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

**Transfer Students**

Transfer applicants to the Marine Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

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

**The Major**

Students must complete the following courses:

1. Ecology and Evolutionary Biology 109 and 109L
2. At least 4 laboratory units (one course) from Ecology and Evolutionary Biology 101, 105, 110, 112, 136, 170, or 181
3. At least 4 marine organismic biology or physiology units (one course) from Ecol- 
   ogy 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 Ecol- 
   ogy 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 Atmo-
   spheric 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 Atmo-
   spheric and Oceanic Sciences M106), 123, 130, 169, Mechanical and Aerospace 
   Engineering 103, or 150A, Molecular, Cell, and Developmental Biology 172

Credit for 199 courses from other departments may not be applied.
With consent of the instructors and department, students may enroll in 200-level courses and apply them toward major requirements.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Marine Biology majors must earn a C− or better in each course taken as preparation for the major, and at least a 2.0 (C) overall average in all courses applied toward the major. Courses applied to upper-division major requirements must have a minimum of 4 units. A 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 faculty participation. To participate, students must enroll in all courses in the respective program. Participants in both programs are selected by personal interview. Information and applications are available in the Undergraduate Advising Office.

Honors Program

An overall grade-point average of 3.4 and a 3.4 in the major are required for graduation with honors. Highest honors are awarded to majors who have a GPA of 3.6 overall and a 3.6 in the major at graduation and who have successfully completed Ecology and Evolutionary Biology 198A and 198B.

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, 113L, 114A, 114B, C119A, C119B, 122, 127L (or Environment M127 or Geography M127), 129, M131 (or Geography M117), 142, 151A, 151B, 152, 153, 154, 155, 161, 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 in 198A 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 Advising Office.

Evolutionary Medicine 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; laboratory, 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.


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 problems. 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. 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 research areas by developing 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 for credit to students with credit for course 122 or Life Sciences 1. Introduction to natural history of Western North America, especially Southern California. Classification, distribution, and ecology of common plants and animals. P/NP or letter grading.

25. Living Ocean. (5) Lecture, three hours; laboratory, one hour; field trips, three hours. Not open for credit to students with credit for Earth, Planetary, and Space Sciences 15. Physical and chemical processes that take place in oceans, 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) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Seminar, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

95. Lower Division Internship in Biology. (4) Tutorial/fieldwork, three hours per week per unit. Internship coordinated by on-campus contact supervisor and supervised by Center for Community Learning, fieldwork site, and faculty adviser. Credit 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 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. P/NP grading.

98. Communicating Science: Bringing Complex Concepts to Life. (4) Seminar, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. P/NP grading.

97AS. 97AX. 97AY. 97AZ. 97BA. 97BB. 97BC. 97BD. 97BE. 97BF. 97BG. 97BH. 97BI. 97BJ. 97BK. 97BL. 97BM. 97BN. 97BO. 97BP. 97BQ. 97BR. 97BS. 97BT. 97BU. 97BV. 97BW. 97BX. 97BY. 97BZ. 97CA. 97CB. 97CC. 97CD. 97CE. 97CF. 97CG. 97CH. 97CI. 97CJ. 97CK. 97CL. 97CM. 97CN. 97CO. 97CP. 97CQ. 97CR. 97CS. 97CT. 97CU. 97CV. 97CW. 97CX. 97CY. 97CZ. 97DA. 97DB. 97DC. 97DD. 97DE. 97DF. 97DG. 97DH. 97DI. 97DJ. 97DK. 97DL. 97DM. 97DN. 97DO. 97DP. 97DQ. 97DR. 97DS. 97DT. 97DU. 97DV. 97DW. 97DX. 97DY. 97DZ. 97EA. 97EB. 97EC. 97ED. 97EE. 97EF. 97EG. 97EH. 97EI. 97EJ. 97EK. 97EL. 97EM. 97EN. 97EO. 97EP. 97EQ. 97ER. 97ES. 97ET. 97EU. 97EV. 97EW. 97EX. 97EY. 97EZ. 97FA. 97FB. 97FC. 97FD. 97FE. 97FF. 97FG. 97FH. 97FI. 97FJ. 97FK. 97FL. 97FM. 97FN. 97FO. 97FP. 97FQ. 97FR. 97FS. 97FT. 97FU. 97FW. 97FX. 97FY. 97FZ. 97GA. 97GB. 97GC. 97GD. 97GE. 97GF. 97GG. 97GH. 97GI. 97GJ. 97GK. 97GL. 97GM. 97GN. 97GO. 97GQ. 97GR. 97GS. 97GT. 97GU. 97GV. 97GW. 97GX. 97GY. 97GZ. 97HA. 97HB. 97HC. 97HD. 97HE. 97HF. 97HG. 97HH. 97HI. 97HJ. 97HK. 97HL. 97HM. 97HN. 97HO. 97HQ. 97HR. 97HS. 97HT. 97HU. 97HV. 97HW. 97HX. 97HY. 97HZ. 97IA. 97IB. 97IC. 97ID. 97IE. 97IF. 97IG. 97IH. 97IJ. 97IK. 97IL. 97IM. 97IN. 97IO. 97IP. 97IQ. 97IR. 97IS. 97IT. 97IU. 97IV. 97IW. 97IX. 97IY. 97IZ. 97JA. 97JB. 97JC. 97JD. 97JE. 97JF. 97JG. 97JH. 97JI. 97JJ. 97JK. 97JL. 97JM. 97JN. 97JO. 97JP. 97JQ. 97JR. 97JS. 97JT. 97JU. 97JV. 97JW. 97JX. 97JY. 97JZ.
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: course 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 in understanding 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. A focused study on evolutionary and ecological relationships of invertebrates and their role in the marine environment. 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 biology major and nonmajors interested in physical and biological world of 70 percent of planet's oceans. Designed to be integrative, with focus on geological evolution of seas, physical and chemical properties, and role of evolution at these abiotic processes. Letter grading.

109L. Introduction to Marine Science Laboratory. (4) Laboratory, three 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, marine productivity, and biodiversity, with emphasis on experimental design and scientific writing. To apply this course to the Biology upper-division major laboratory requirement, the corresponding lecture course must be completed with a passing grade. Letter grading.

110. Vertebrate Morphology. (6) Lecture, three hours; laboratory, five hours. Requisites: Life Sciences 1 or 7B. Survey of vertebrate morphology, function, and evolution from viewpoint of comparative anatomy of adult forms, biomechanics, development, and paleontology. Laboratory study of selected vertebrates. Letter grading.

111. Biology of Vertebrates. (6) Lecture, three hours; laboratory, three hours; four to two-day field trips. Requisite: Life Sciences 1 or 7B. Adaptations, behavior, and ecology of vertebrates. Letter grading.

112. Ichthyology. (6) Lecture, three hours; laboratory, six hours; field trips. Requisite: Life Sciences 1 or 7B. Highly recommended: courses 110, 111. Biology of freshwater and marine fishes, with emphasis on their evolution, systematics, morphology, zoogeography, and ecology. Field trips to examine fishes of Southern California shoreline, tidepools, and coastal streams. Letter grading.

113A. Herpetology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Recommended requisite: course 120. Exploration and summarization of evolution, ecology, life history, and conservation biology of world's reptile and amphibian fauna. Topics include conservation assessments both globally and in California, discussion sections focused on student-led critical evaluations of current literature, and 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 recent historical context of 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. Biology, 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. Biology, particularly ecology and behavior, of birds in their natural habitat. Letter grading.

115. Mammalogy. (5) Lecture, three hours; laboratory, three hours. Requisite: Life Sciences 1 or 7B. Topics in mammalian biology, including evolution, ecology, behavior, functional morphology, systematics, physiology, and biogeography. Letter grading.

116. Conservation Biology. (4) Lecture, three hours; discussion, two hours. Requisite: Life Sciences 1 or 7B. Recommended: course 120. Not open for credit to students with credit for Environ 121. Study of ecological and evolutionary principles as they apply to preservation of genetic species, and ecosystems. Letter grading.

117. Evolution of Vertebrates. (5) Lecture, three hours; laboratory, three hours. Requisite: course 110. Recommended: one general geology course. Fossil record of evolution of vertebrates, with emphasis on paleobiology and morphology of tetrapods. P/NP or letter grading.

118. Plant Adaptations. (8) Lecture, one hour; field trip, 10 hours. Requisite: course 100. Five-week course offered 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 ecophysiological 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 3C. Lecture, three hours; laboratory, 12 hours. Requisites: course 100, Life Sciences 1 or 7B. Mathematical and computational modeling of ecological dynamics, including model formulation, stochastic models, fitting model parameters to field data, and other topics from current literature. Concurrently offered 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 model parameters to field data, review of model results, and other topics from current literature. Concurrently offered with course C219B. P/NP or letter grading.

120. Evolution. (4) Lecture, three hours; discussion, two hours. Requisites: courses 110, 122. Survey of the biological sciences. Modeled after current topics in marine biology, including analysis of primary research literature combined with field study of selected marine organisms, communities, and ecosystems. Original research project required. Letter grading.

123A. Field Marine Ecology. (4 or 8 each) Letter grading. In residence at research station located outside continental U.S. 123A. 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 selected marine organisms, communities, and ecosystems. Original research project required. Letter grading.

123B. Field Marine Ecology. (4 or 8 each) In residence at research station located outside continental U.S. 123B. Field Marine Ecology. (4 or 8 each) Lecture, five hours; laboratory, 15 hours. Recommended requisites: courses 100, Life Sciences 1 or 7B. Recommended: courses 110, 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 research projects. Letter grading.

124A. Field Marine Ecology. (4 or 8 each) In residence at research station located outside continental U.S. for part of or for duration of term. 124B. In residence at research station located within U.S., including Alaska and Hawaii, for part of or for duration of term.

125. Tropical Animal Communication. (4 or 8) Lecture, three hours; discussion, two hours. Requisites: 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 one basic lecture meeting and nine intensive weeks, followed by extended field trips where students do individual projects in animal communication. Letter grading.

126. Behavioral Ecology. (4 or 8) Formerly numbered 126J. 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. 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 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 offered with course C22. Letter grading.

M127. Soils and Environment. (4) (Same as Environment M127 and Geography M127.) Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmental topics; soil development, morphology, and worldwide distribution of soil orders; physical, chemical, hydrological, 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 Environment M127L and Geography M127L.) Labora-
tory, one hour; field excursions. Corequisite: course M127. Investigations and demonstrations supporting material in course M127, including excavating, de-
scribing, and analyzing soil samples in field, soil formation processes, pedology, geochemistry, and geomorphology, and soils. P/NP or letter grading.

128. Plant Physiological Ecology. (5) Lecture, three hours; laboratory, three hours; semester. Two-day field trips. Requisites: Life Sciences 1 or 7B, Physics 1C and 4BL, or 5B or 6C. Study of plant/environment interactions under natural conditions. Transpiration and photosynthetic and water use, and diversity of soil/plant/atmosphere continuum. Letter grading.

129. Animal Behavior. (4) Lecture, three hours; discussion, two hours; Requisites: course 100, Life Sciences 1 or 7B. Introduction to behavioral ecology. Methods and results of evolutionary approaches to study of animal behavior, including foraging strategies, social competition, sexual selection, mating systems, cooperation, and social organization. Letter grading.


M131. Ecosystem Ecology. (4) (Same as Geography M117.) Lecture, three hours; field trips; Requisite: Geography 1 or Life Sciences 2 or 7C. 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.

132. Field Behavioral Ecology. (8) Lecture, two hours; laboratory/field trip, 10 hours. Requisites: course 100, Life Sciences 1 or 7B. Recommended: course 129. Five-week course offered only as part of Field Biology Quarter. Field research in behavioral ecology, emphasizing animal communication, design and execution of individual and small group field projects during extended field trip. Letter grading.

133. Elements of Theoretical and Computational Biology. (4) Lecture, four hours; discussion, one hour; laboratory, two hours. Requisites: Life Sciences 1, 2, 3, 4, 23L, and Mathematics 3A, 3B, and 3C, or 31A or 31B, or Life Sciences 30B. Strongly recommended: course C135. Population Genetics. (4) Lecture, two hours; discussion, one hour. Requisites: Chemistry 14A, 14B, 14BL, 14C, 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. Emphasis on how sensory channels are produced, transported, and influence behavior of microbes, plants, and animals. Synthetic approach, with emphasis on applications to cell biology, physiology, and ecology. P/NP or letter grading.

M139. Introduction to Chemical Oceanography. (4) (Same as Atmospheric and Oceanic Sciences M151.) Lecture, four hours; 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.

144. Prehistoric California. (5) Lecture, three hours; laboratory, three hours; field trips. Requisite: Life Sciences 1 or 7B. Recommended: course 100. Survey of history of life as illustrated in fossil record of California. Examination of major groups of organisms from ocean and river sediments to land plants and vertebrates, mostly to 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, climatic, and evolutionary change on living organisms related to environmental change on human timescales. Emphasis on how scientists collect and evaluate fossil data through understanding of living organisms. Letter grading.

M145. Advanced Paleontology. (4) (Same as Earth, Planetary, and Space Sciences M118.) Lecture, three hours. Requisite: course 110 or 117 or Earth, Planetary, and Space Sciences 116. Consideration of major factors that have influenced history of life, including analytical approaches to analyzing patterns in fossil record, nature of rock record, and contribution of data from stable isotopes, functional morphology, phylogenetics, and developmental biology. P/NP or letter grading.

147. Biological Oceanography (4) Five-week intensive course. Lecture, five hours; laboratory, 15 hours. Requisites: Chemistry 14A, 14B, 14BL, 14C, 14CL, 14D, or 20A, 20B, 20L, and 30A. Life Sciences 1, 2, 3, 23L. Includes physical, chemical, and biological factors affecting abundance and distribution of organisms in marine environment. Laboratory includes experimental studies of local marine organisms, with emphasis on primary and secondary production and nutrient flux. Letter grading.


151A. Tropical Ecology. (4) Lecture, one hour; discussion, two hours. Requisites: Life Sciences 1 or 7B. Broad introduction to biodiversity, community structure, and dynamics and ecosystem function of range of tropical forest habitats. Discussion of such themes as biogeography, forest structure, plant growth forms, animal communities, habitats, forest 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. Introduction to the biomes of world, ecological and physiological adaptations of biomes to world, emphasis on 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 ecophysiological models and computer simulations to fieldwork and laboratory experiments. 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 by organisms to their habitats. Focus is integrative, providing comprehensive training for 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 biochemistry and ocean acidification, and allometric scaling of metabolism and effects of temperature on physiological function. Fundamentals of boundary-layer physics and their role in organism’s life history. Physics as natural life process, including how organisms maintain biomass and energy; fluid dynamics of water and air; photo-autotrophy; and physiology of water. 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 habitats. Examination of existing theories of community organization and evidence, both observational and experimental, bearing on these theories. Consideration of diversity of communities of plant, animal, microbial, terrestrial, and marine—to give appreciation of extraordinary natural history and diversity of life on Earth as it exists in its living ecological context. Discussion of how ecosystems respond now and will respond in future to anticipated global change, and conservation implications of these changes. Letter grading.
156. Biology and Social Justice. (4) Lecture, four hours. Consideration of intersection of biological discovery and human society to better understand how scientific advances have both promoted and 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, coevolutionary interactions, community ecological processes 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.


162L. Plant Physiology and Ecophysiology Laboratory. (4) Laboratory, 12 hours. Requisites: course 152 or 162. Three hours of laboratory devoted to the study of basic 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 theories to answer questions on plant function, including use of programs such as FunAnatomy (plant anatomy) and FastPlant (growing simulated plants) to apply this course to the Biology major. The course is designed for juniors and seniors. Introduction to fundamental skills needed for manipulating quantitative data 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.

179. Communicating Science to Informal Audiences. (5) Lecture, three hours; discussion, one hour; laboratory or fieldwork, two hours. Requisite: one semester of course 25, Atmospheric and Oceanic Sciences 41, or 101B, 101C, or 101D, or 106. Investigations and discussions of current ethical considerations relevant to fields of ecology, evolution, conservation, and behavior. Letter grading.


186. Marine Biology of Land Interface. (4) Lecture, five hours; fieldwork, 15 hours. Enrollments: 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, osmotic 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 biochemical and chemical environmental features to establish basic tenets of organismal performance, as well as population and community dynamics in response to extreme environments and ecological 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, 4, 23L, Mathematics 3C or 32A or Life Sciences 30B, Physics 1C and 4B, 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 animal organs and organ 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, permuta- tions, Yates 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 and presented with course C202. P/NP or letter grading.

CM173. Earth Process and Evolutionary History. (8) (Same as Earth, Planetary, and Space Sciences 173L) Lecture, four hours; laboratory, three hours. Requisites: Chemistry 14A, 14B or 20A, 20B, 20L, and 30AL, Life Sciences 1, 3, 23L, or 7A, 7B, and 23L. Highly recommended: course 111. Five-week intensive course for offering of Marine Biology Laboratory. Survey of higher vertebrates living in marine habitats, including estuarine amphibians, marine reptiles, seabirds, and marine mammals. Laboratory emphasized with field experiments and theoretical approaches to study of morphology, systematics, ecology, and behavior of local marine birds and mammals. Given off campus at marine science center. Letter grading.


166. Biology of Marine-Land Interface. (4) Lecture, three hours. Concurrently scheduled with course C202. P/NP or letter grading. Five-week intensive course of- fered as part of Marine Biology Quarter. Need for young scientists to learn how to communicate about their science to audiences is especially critical when considering that Americans are increasingly without scientific training. The course focuses 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, 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 use of existing software packages such as R and associated tools. 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 bio-systems modeling and computer simulation. Study of biologi- cal/biomedical processes and systems at multiple levels of organization. Control system, multicompart- mental, predator-prey, pharmacokinetic (PK), pharma- codynamics (PD), and modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismal levels. Both theory- and data-driven modeling, with focus on trans- leg broadening 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.

CM137. Earth System and Evolutionary History. (6) (Same as Earth, Planetary, and Space Sciences CM137) Lecture, four hours; laboratory, three hours. Requisites: Chemistry 14A, 14B or 20A, 20B, Life Sciences 1, 2, 3, 4, and 7A, 7B, and 23L (or 7A and introductory course in geology). Exploration of relationship between physical processes, such as tec- tonics and climate, and how they affect surface and impact biology of Earth. Study of evolution of uni- verse, Earth, and life, with integration of history of sci- ence, including Darwinian evolution and plate tec- tonics evolution. This study formation of matter offers tools to understand geologic process of climate and ecology of Earth. Past climate change to examine ex- pected future human-influenced climate. Consideration of major impacts on life on Earth. Data and methods from geology, genetics, and geochem- istry 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 intro- ductive statistics course. Modern comparative bi- ology provides framework for studying broad ques- tions in evolution—How do body shapes evolve? What are the natural limits of evolution? Why are there so many species in tropics? Why are there so many beetles and so few crocodiles? Did dino- saurs put brakes on diversification of mammals? Ex- amination of these as well as other modes of evolution is essential to understand patterns of biological diversity and how phylogenetic comparative methods are used to test macroevolutionary hypotheses. Concurrently sched- uled with course C173.

175. Evolutionary Dynamics of Sex. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sci- ences 1 or 7B. Fitness dynamics of reproduction when females and males are in conflict over repro- ductive devices—clutch size, cooperativity, parental care. Examples include sex allocation, sexual selection thinking, sexual selection, and origins of sexual conflict, including Fisherian sex allocation, evolution of multiplicity through deceptive communication, and theory of Darwinian sexual conflict. 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 critically important issues involving substantial biological, psychiatric, socioeconomic, and ethical concerns. Emphasis on current ethical considerations relevant to fields of ecology, evolution, conservation, and behavior. 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, bi- ology, and evolution of infectiousness, symbiosis, and parasitism, emphasizing protozoan and helminth para- sitism, including those used for biological warfare.

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 tech- niques. Offered 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 medicine. Introduction to mechanics and processes of evolution, with emphasis on natural selection, population genetics, speciation, evolutionary rates, and patterns of adaptation. Coverage of fundamental principles of evolution, with special focus on medicine and human health. P/NP or letter grading.

186. Evolutionary Medicine: Clinical Perspective on Medical, Surgical, and Psychiatric Disorders. (4) Lecture, three hours; discussion, one hour. From breast cancer and heart failure to self-injury, 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. (Up to 20 units) Lecture, discussion, 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 maximum overall honors contract credit of 12 units. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Ecology and Evolutionary Biology. (1) Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. P/NP or letter 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 topics announced. Open to all students. Enrollment by permission of 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) Lecture, 12 hours (course 192A), 12 hours (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 course materials and in laboratory sections. Students gain experience in class preparation and grading of course materials. P/NP or letter grading.

193. Journal Club Seminars: Ecology and Evolutionary Biology. (1) Seminar, two hours. Enforced corequisite: one course from 198A through 198D or 199. Limited to undergraduate students. Development of in-depth understanding of and ability to discuss current literature in field of student's own research. May be repeated for credit. P/NP or letter grading.

194A. Research Group or Internship Seminars: Access to Research Careers. (2) Seminar, six hours. Access to current research activities or those who have strong commitment to pursue graduate studies in molecular, biochemical, physiologic, or biomedical fields. Weekly presentation and discussion of student's own research. 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 of research or of faculty members or students. May be repeated for credit. P/NP or 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 advisor. Contact 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 or letter grading.


198A-198D. Honors Research in Ecology and Evolutionary Biology. (4 each) Tutorial, 12 hours. Limited to juniors/seniors. Supervised individual research designed to broaden and develop student'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 hours of upper-division coursework required, including honors seminar. 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). Registration must be presented to undergraduate adviser each term. 198C course is taken.

199. Directed Research in Ecology and Evolutionary Biology. (2 to 4) Tutorial, 12 hours. Prerequisite: submission of written proposal outlining study or research to be undertaken. Studies to involve laboratory or field-related research, not literature surveys or library research. Proposal to be developed in consultation with instructor and submitted for approval to undergraduate adviser before day instruction begins in that term. Limited to juniors/seniors. Supervised individual research undertaken under guidance of faculty mentor. At end of term culminating report describing progress of study or research and signed by student and instructor must be presented to undergraduate adviser. Only one 199 course may be applied toward departmental majors. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

M200A. Evolutionary Biology. (4) Same as Earth, Planetary and Space Sciences M216A. Lecture, two hours; discussion, two hours. Current concepts and topics in evolutionary biology, including microevolution, speciation and species concepts, analytical bio- geography, adaptive radiation, mass extinction, community evolution, molecular evolution, and development of evolutionary thought. S/U or letter grading.

200B. Ecology. (4) Lecture, two hours; discussion, two hours. Principles and current topics in ecology. Topics may include 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 mechanism 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. Limited to departmental PhD students. Offered as intensive two-day course at beginning of term. Introduction to R language. Topics include working at command line, writing scripts and functions, flow control, graphics, and conducting basic simulations in discrete and continuous time. S/U or letter 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 comparisons. Inclusion of hypothesis testing and introduction to alternative approaches that 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 histories, 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 Methods of Algae. (4) Lecture, four hours; discussion, one hour. Consideration of recent research in experimental phycolgy. Topics include discussion of appropriate aspects of chemical and physical oceanography and limnology; algal physiology; biochemistry, algal physiology, and algal 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. Prerequisite: course 111 or 112. Advanced study of various aspects of fish biology. Time 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. Prerequisite: course 110. Emphasis on functional approach to evolution of vertebrate locomotion, feeding, and circulatory systems. Laboratory includes comparative and experimental analyses of morphological adaptation. Independent project required. May be repeated once for credit. S/U or letter grading.

209. Behavior of Arthropods. (4) Lecture, three hours; discussion, one hour. Advanced study of topics in behavior of terrestrial arthropods, including communication, feeding, reproductive behavior. Emphasis on both mechanistic and adaptive approaches toward understanding behavior. Independent project required. S/U or letter grading.
210. Advanced Ornithology. (4) Lecture, two hours; laboratory, two hours; fieldwork, two hours. Requisite: course 114A. Advanced study of topics in modern avian biology. Emphasis on experimental approaches to investigations of physiology (energetics, nutrition, osmoregulation), ecology (population and community organization), and behavior (foraging, breeding, sociability). S/U or letter grading.

217. Marine Ecology. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Structure, composition, and energy flow of marine ecosystems; behavior, population dynamics, and biogeography of component species; associated oceanography and meteorology. 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 3B or Mathematics 3B or 31A. Recommended: courses 100, 114A; Mathematics 3. Introduction 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 in Ecological Research. (4) Lecture, two hours; discussion, two hours. Requisite: course C219A. Advanced techniques in mathematical and computational modeling of ecological dynamics and complex 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 C219B. S/U or letter grading.


M226. Global Health Measures for Biological Emergencies. (4) (Same as Epidemiology M226.) Lecture, four hours. Requisite: Epidemiology 220. Mitigation of bioterrorism falls outside traditional public health programs and public health graduate education. Because of seriousness of such threats, it is important that individuals trained in public health understand problems and responses. Letter grading.

CM228. Earth Process and Evolutionary History. (8) (Same as Earth, Planetary, and Space Sciences CM228.) Lecture, four hours; laboratory, three hours. Requisites: Chemistry 1A, 14B (or 20A, 20B), Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C (or 7A and introductory course in geochemistry). Exploration of relations between historical 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, science communication, and professional development. S/U grading.

C235. Population Genetics. (4) (Formerly numbered C235.) Lecture, three hours; discussion, one hour. Basic principles of genetics of populations, dealing with genetic structure of natural populations and mechanisms of evolution. Equilibrium conditions and forces; gene frequency; polymorphism; gene flow, migration, interbreeding, and speciation; molecular evolution, and methods of quantitative genetics. Concurrently scheduled with course C135. S/U or letter grading.


C237. Communicating Science to Informal Audiences. (5) Lecture, three hours; discussion, one hour; laboratory or fieldwork, two hours. Requisite: one course from course 25, Atmospheric and Oceanic Sciences M10, Chemistry 2, 14A, 20A, Earth, Planetary, and Space Sciences M10 and 20A, Life Sciences 1, or 7B. Recommended for juniors/seniors. Designed in consultation with instructor. Guidance on how to improve presentations to develop science literacy at all levels and to public understanding of science and environmental stewardship. Open to undergraduates and GSIs.

C238. Ocean Biogeochemical Dynamics and Climate. (4) (Same as Atmospheric and Oceanic Sciences M238.) Lecture, three hours; discussion, one hour. Emphasis on ocean biogeochemical cycles with physical climate system. Biogeochemical processes controlling carbon dioxide and oxygen in oceans and atmosphere over time-scales of decades to millions of years. Anthropogenic perturbation of global carbon cycle and climate. Response of ocean ecosystems to past and future global changes. Use of interdisciplinary approaches to study ocean biogeochemical cycles and climate. Interactions between biogeochemical cycles on land and in ocean. S/U or letter grading.

C240. Physiology of Marine Animals. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Lecture and lab on 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 theories of large numbers and human behavioral ecology. Concurrently scheduled with course C126. Letter grading.

C243. Animal Communication. (4) Lecture, three hours; discussion, one hour. Open to undergraduates with consent of instructor. Lectures treat signal analysis, signal transmission, and receptor design in light of constraints placed on each sensory modality. Examples of communication systems using visual, auditory, chemical, electrical and magnetic cues. Emphasis on bio logical adaptations for efficiently signaling species-specific information. S/U or letter grading.

C244. Advanced Insect Physiology. (4) Lecture, two hours; laboratory, five hours. Detailed discussion of current problems in insect physiology, with advanced laboratory. S/U or letter grading.

C247. Advanced Plant Biology. (4) Lecture, three hours; discussion, two hours. Requisite: course 162 or Molecular, Cell, and Developmental Biology C141. Open to undergraduates with consent of instructor. Designed to expose first-year graduate students to topics of current interest in plant biology. Subjects include plant genetics, growth and development, organelle structure, development and function, and plant-specific metabolic processes (photosynthesis, nitrogen fixation, metabolism of small molecules). S/U or letter grading.
250. Professional Skills for Biological Research. (2 to 3) Seminar, two hours. Preparation, writing, and submission of research proposals. Collection and maintenance of field and laboratory data, preparation of scientific presentations, review of literature, and publishing strategies. Optional field trip offered during some years for 1 extra unit. S/U or letter grading.

251. Seminar: Systematics. (2) Seminar, two to four hours. Current topics in systematic biology, including methods of development and specific applications in study of phylogeny. Theme varies from year to year. May be repeated for credit. S/U or letter grading.


255. Seminar: Invertebrate Zoology. (2) Seminar, two hours. S/U or letter grading.

259. Seminar: Herpetology. (2) Seminar, three hours. Seminar on current approaches to herpetology. Main theme varies from year to year in areas such as biogeography, ecology, behavior, environmental physiology. S/U or letter grading.


261. Molecular Ecology of Plant Populations. (2) Seminar, two hours. Requisite: course M200A. Integration of ecological, population genetic, and evolutionary concepts to understand evolutionary ecology and conservation biology of plant populations in natural and disturbed settings, with application to both terrestrial and aquatic systems. Letter grading.

263. Seminar: Population Genetics. (2 or 4) Seminar, three to six hours. Seminar on topics of current interest in population genetics, such as kin selection, sociobiology, cultural evolution, conservation genetics, etc. S/U or letter grading.

264. Seminar: Stomatal Function. (4) Seminar, two hours; discussion, two hours. Open to undergraduates with consent of instructor. Structure and function of guard cells: gas exchange; environmental and hormonal regulation of stomatal responses; sensory transduction; stomatal adaptations. S/U or letter grading.


266. Seminar: Current Topics in Evolutionary Ecology. (2) Seminar, two hours. S/U or letter grading.


270. Seminar: Environmental Physiology. (2) Seminar, two hours. S/U grading.


273. Seminar: Entomology. (2) Seminar, two hours. Discussion of specific topics in entomology and related fields. Main theme varies from year to year, but usually emphasizes areas such as behavior, ecology, and evolution. S/U grading.


275. Seminar: Evolutionary Biology. (2) Seminar, two hours. Requisite: course M231. Emphasis on particular issue in evolutionary biology, varying in topic whenever offered. Topics may include advances in phylogenetic methodology; relationship between development and evolution; biogeography, climate change, and faunal evolution; dispersal mechanisms and macroevolutionary patterns; adaptation and diversification; macroevolutionary patterns in fossil record. S/U or letter grading.

282. Seminar: Ichthyology. (2) Seminar, two hours. Requisite: course 111 or 112. Student presentations and discussion of specific topics in ichthyology. Theme varies from year to year. May be repeated for credit. S/U or letter grading.

286. Seminar: Statistical Problem Solving for Population Biology. (2) (Same as Statistics M286.) Seminar, two hours. Designed for graduate students. Statistical solutions to complex data analysis and/or experimental design problems encountered by biology graduate students in their own research. S/U or letter grading.


290. Seminar: Comparative Physiology. (2) (Same as Physiological Science M290.) Seminar, two and one half hours. Discussion of specific topics in comparative physiology of animals. Topics vary from year to year, with emphasis on systems physiology, neuroethology, or behavioral physiology. S/U or letter grading.

291. Seminar: Physiology and Biochemistry of Arthropods. (2) Seminar, two hours. S/U or letter grading.

296. Seminar: Ecology and Evolutionary Biology. (1 to 4) Seminar, three hours. Advanced study and analysis of current topics in cellular, organismic, and population biology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U or letter grading.

297. Selected Topics in Ecology and Evolutionary Biology. (1 to 4) Seminar, one to three hours. Advanced study and analysis of variable research topics in ecology and evolutionary biology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. S/U or letter grading.

299. Seminar: Parasitology. (2) Seminar, two hours. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprentice must have completed one full year of graduate study and be majoring or specializing in parasitology. Responsibility for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Preparation for Teaching Biology in Higher Education. (2) Seminar, to be arranged. Designed for graduate students. Study of problems and methodologies in teaching biology, which includes workshops, seminars, apprentice teaching, and peer observation. S/U grading.

496. Preparation for Teaching Biology in Higher Education. (2) Lecture, two hours. Designed for graduate students. Strongly recommended as sequel to course 495. Discussions on teaching, theory, and development of advanced skills. Study of methods and approaches to teaching of specific areas in biology, with emphasis on laboratory teaching, instructor/student interaction, and undergraduate motivation. S/U grading.

596. Directed Individual (or Tutorial) Studies. (2 to 12) Tutorial, to be arranged. Letter grading.

596F. Directed Individual (or Tutorial) Studies. (2 to 8) Tutorial, to be arranged. Given off campus at marine science center. S/U or letter grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May not be applied toward MA or PhD course requirements. S/U grading.

598. MA Thesis Research and Writing. (2 to 12) Tutorial, to be arranged. S/U grading.

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.

**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 economic 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

**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 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 students are required to take Economics 1, 2, 11, 41 at UCLA rather than prior to transfer. 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-semester 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). This 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 Grades

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.

3. Introductory Economics. (4) Lecture, three hours. Not open to students with credit for course 1, 2, or former course 100. Principles of economics as tools of analysis. Presentation of 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.

4. Microeconomic Theory. (4) Lecture, three hours; discussion, one hour. Laws of supply, demand, and price determination in different market situations. P/NP or letter grading.

5. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


7. Economic Toolkit. (4) Lecture, three hours. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

8. 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. Enforced requisites: courses 11, and 41 or Mathematics 170A or Statistics 100A. 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 11, 101, 102. Enforced corequisite: course 106AL. Students, in groups of four, address three small problems and one large and complex problem. Discussion of general solutions to problems in their groups, with small-group discussions to student presentations of results in class. Detailed coaching and feedback by MBA students. Hands-on data analysis and presentations. Final written and oral presentations required. P/NP or letter grading.

106AL. Economics in Practice Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 102. Enforced corequisite: course 106IL. Students, in groups of four, address three small problems and one large and complex problem. Discussion of general solutions to problems in their groups, with small-group discussions to student presentations of results in class. Detailed coaching and feedback by MBA students. Hands-on data analysis and presentations. Final written and oral presentations required. P/NP or letter grading.

106B. Economics of Entrepreneurship. (4) Lecture, three hours; discussion, one hour. Enforced corequisite: course 106EL. Enrolled students: students in upper-division programs in business school, and upper-division business majors. Application of economic theory to practice of managing new businesses—combining elements of strategy, marketing, and entrepreneurial finance courses. Examination of both strategic decisions of entrepreneurs (pricing, advertising, deterring entry) and more practical issues (funding, business plans, patents). Letter grading.

106E. Economics of Entrepreneurship Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106EL. Case-based analysis requiring students to apply material from course 106E to real-world problems regarding topics involving combining elements of strategy, marketing, and entrepreneurship. Letter grading.


106FB. Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 106FL. 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 106GL. Enrollment priority to Business Economics majors. Introduction to basic ideas of game theory and strategic thinking. Discussion of ideas such as dominance, backward induction, Nash equilibrium, commitment, credibility, asymmetric information, and signaling, with application to examples from economics, politics, business, and other real-life situations. Letter grading.

106GL. Introduction to Game Theory Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106GL. 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 Strategies Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 11. Enforced corequisite: course 106PL. Enrollment priority to Business Economics majors. Advanced pricing topics typically include linear programming and shadow pricing, peak load pricing, two-part pricing, strategic pricing, and auctions and bidding. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.

106TL. Economics of Technology and E-Commerce. (4) Lecture, three hours; discussion, one hour. Requisite: course 101. Enrollment priority to Business Economics majors. Application of economic tools to analyze world of technology and e-commerce. Examination of economic theory, empirical analysis, and case studies to study variety of new markets. Topics include bidding in online auctions, two-sided markets, matching markets, and reputation mechanisms. Written case on one particular firm and presentation required. P/NP or letter grading.

106U. Economics of Technology and E-Commerce Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: courses 11, 101, 102. Enforced corequisite: course 106UL. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.


106VL. Investments Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: courses 11, 101, 102. Enforced corequisite: course 106VL. 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. Enforced requisites: courses 11, 101, 102. 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 11, 101, 103. Application of theoretical and empirical tools from microeconomics to provide insights into problems confronting low-income countries today and to evaluate policies that are likely to be effective in improving well-being of poorest on globe. P/NP or letter grading.

112. Policies for Economic Development. (4) Lecture, three hours, requisites: course 102 or 111. Suggested strategies for economic development: inflation, balance of payments and adjustment to national credit for former course 120. Emphasis on interpretation of quantitative information from course readings and development of better understanding of economic phenomena such as insurance, job search, and stock market behavior. Optimal production and consumption under uncertainty. Review of probability and introduction to alternative measures of risk and risk aversion. P/NP or letter grading.

113. Globalization and Gender. (4) Lecture, three hours, requisites: 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 to these processes. Since early 1980s economic globalization has been achieved on basis of common set of macroeconomic policies pursued in industrial and developing countries alike. These policies frame both 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. Theoretical foundations of international trade: basic concepts and tools from microeconomics. Role of government in market change rate forecasts and to evaluate accuracy of change rate forecasts by combining theoretical concepts and results. 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 national and international equilibria through changes in price levels, exchange rates, and national income. Other topics include making international payments, determination of foreign exchange rates, balance of payments, capital flows, exchange controls, and international monetary organization. P/NP or letter grading.

122L. International Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 122L. Case-based analysis requiring students to apply theory from course 131 to real-world problems regarding economics of financial markets, competitive equilibrium analysis; examination of forecasting techniques. Hands-on approach to real-world data analysis methods widely used by economists and other professionals. P/NP or letter grading.

123. Foreign Exchange Market and Exchange Rate Forecasting. (8) Formerly numbered 123. (Same as Economors Collegium M109.) Seminar, four hours. Introduction to forecasting of exchange rates. Theory linked with real-world data through use of powerful computer platform called Tradestation® in computer laboratory. Analysis of how foreign exchange market works, what financial instruments are used in this market, and what main theoretical determinants of exchange rates are. Generation of exchange rate forecasts using theoretical and empirical models. P/NP or letter grading.

126A-C. International Economics. (4–4–4) Lecture, three hours. Requisites: courses 11, 101, 102. Limited to seniors. Overview of most current developments in international economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topics each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C296A-C296B-C296C. P/NP or letter grading.

130L. Public Economics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101. Enforced corequisite: course 130L. Case-based analysis requiring students to apply theory from course 130 to real-world problems regarding government finance. Focus on study of econometric models 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. (4) Lecture, three hours. Requisites: courses 11, 101, 103. Enforced corequisite: course 131L. Economic analysis of health and healthcare. Presentation of several different economic models and concepts such as insurance, demand for healthcare, healthcare reform, market failures, and nonprofit behavior. Evaluation of quantitative information from course readings and development of better understanding of economic concepts and results. P/NP or letter grading.

131L. Economics of Health and Healthcare Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: enforced 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 of health 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 economic analysis of environmental issues, with emphasis on designed incentives to protect environment. Highlights important role of using empirical data to test hypotheses about pollution's causes and consequences. P/NP or letter grading.


137. Introduction to Urban and Regional Economics. (4) Lecture, three hours. Requisite: course 11. Survey of broad range of policy and theoretical issues that are raised when economic analysis is applied in urban setting. Topics include urbanization and urban growth, housing markets, local public decisions of households and firms, transportation, urban labor markets, and local public sector. P/NP or letter grading.

and time-series econometrics. Investigation of popular financial econometric models and estimation methods. Review of selected topics in finance, and how to apply econometric methods to analyze and understand empirical properties of financial market data. Analytical problem sets and data exercises to enhance theoretical understandings and practical skills. P/NP or letter grading.

148. Behavioral Economics. (4) Lecture, three hours. Enforced requisite: course 101. Behavioral economics explores the behavioral economics that incorporates insights from psychology and other social sciences into economics to improve realism of economic models. Students will analyze classic features to understand empirical properties of financial market data. Analytical problem sets and data exercises to enhance theoretical understandings and practical skills. P/NP or letter grading.

150. Labor Economics. (4) Lecture, three hours. Enforced requisite: courses 11, 101, 103. Enforced corequisite: course 150. Case study analysis requiring students to apply theoretical tools from course 150 to real-world problems involving labor economics. Topics include labor supply decisions, household production decisions, life-cycle aspects of labor supply, short-run and long-run labor demand behavior, labor market, quasi-fixed labor costs and labor demand, human capital, and other extended topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

151. Topics in Labor Economics. (4) Lecture, three hours. Courses: 101, 105. Selected topics in labor economics: income distribution; business cycles and unemployment; investments in human capital and life cycles; migration; human fertility; marriage and divorce, etc. P/NP or letter grading.

C156A-C156B-C156C. Seminars: Labor Economics. (4–4–4) Seminar, three hours. Seminar requirements: courses 11, 101, 103. Overviews of most current developments in labor economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C226A-C226B-C226C. P/NP or letter grading.

167. Victims and Villains; Panics and Bubbles. (4) Lecture, three hours. Enforced requisite: 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 meltdown of 2008 with comprehensive treatment of financial and banking crises, role of the Federal Reserve, housing and stock market bubbles. Highlights report of Financial Crisis Inquiry Commission, and various components of crisis with case and discussion on each component. Students receive 12 credits for former course 170 or 171. 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. Enforced requisite: courses 101, 102. Principles of money and banking, first hour; economics and banking, second hour. Introduction to fundamental principles of value investing. Discussion of fundamental themes relating to value investing, and demonstration of how these ideas can be applied in various approaches to value investing. Topics include differences between investment and speculation, how to search for inefficiencies in market prices, and how to incorporate margins of safety in macroeconmic growth problems. Study of valuation tools, including liquidity value, and returns on student analysis and interpretation with feedback on student analysis and interpretation of student data. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

174. Economics of Sports. (4) Lecture, three hours. Enforced requisite: courses 11, 41, 101. Recommended courses: courses 103/103L, 200L. Course in applied microeconomics that applies 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 sports contracts, and evaluation of professional sports franchise and sports broadcasting rights, league expansion and relocation decisions, understanding of role of economic impact studies (cost-benefit analyses). Designed for students considering career in sports sponsorship, and calculation of economic damages in legal cases involving athletes. P/NP or letter grading.
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 C276A-C276B-C276C. P/NP or letter grading.

181. Development of Economic Institutions in Western Europe (4) Lecture, three hours; laboratory, one hour. Requisite: courses 11, 103. Corequisite: course 181. Application of economic theory and quantitative reasoning to study economic history of Western Europe from 18th to 20th centuries. Topics include 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. Requisite: 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, financial markets, economy, knowledge of career opportunities. Review of current 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 185C) Lecture, three hours. Enrollment priority given to economic majors. Designed to provide Business Economics majors with key knowledge and practical skills used in work that complement traditional academic courses. Overview of current business environment, financial markets, economy, unemployment, banking crises, market updates, and related business topics. P/NP grading.

218A-C186B-C186C. Seminars: Economic History. (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 criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C246A-C246B-C246C. P/NP or letter grading.

187. Upper-Division Research Seminar: Applications of Economic Theory (4) Seminar, three hours. Requisites: limited enrollment prioritized for economics 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. 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. Designates a topic to be used for honors contract 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.


195A-195B. Community or Corporate Internships in Economics I, II, (2-4) Tutorial, to be arranged. Requisites: courses 11, 101. Limited to junior/senior Economics, Business Economics, Economics/International Area Studies majors. Internship to be supervised by Economics Department. Further supervision to be provided by business or entity for which student is doing internship. Students meet on regular basis with instructor and provide periodic reports of their experience. May not be applied toward major requirements. Only 8 units from courses 195A and 195B may be applied toward major requirements. Individual contract with supervising faculty member required. P/NP or letter grading.

195C. Community and Corporate Internships in Economics. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Requisites: courses 11, 101. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated by Economic Department. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinators and final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues relevant to internship site. May not be applied toward major requirements. Dyson contract with credit of consent of department. Individual contract with supervising faculty member required. P/NP or letter grading.

198. Honors Research in Economics I. (4) Tutorial, three hours. Requisites: courses 11, 101, 102. Limited to senior departmental honors program students. First term of two-term sequence in which students develop honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Economics II. (4) Tutorial, three hours. Requisite: course 198A. Limited to senior departmental honors program students. Second term of two-term sequence in which students complete honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. Letter grading.

199A. Directed Research in Economics. (4) Tutorial, three hours. Requisites: courses 11, 101, 102. Limited to junior/senior Economics majors. 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. Requisites: courses 103, and 121 or 122. Limited to senior Economics/International Area Studies majors. Students prepare research papers under guidance of faculty mentor on economy of country or region of specialization. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses


210A-210B-210C. Microeconomics. (4-4-4) Lecture, three hours. S/U or letter 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.

210A-210B-210C. Macroeconomics. (4-4-4) Lecture, three hours. S/U or letter grading:

210A. Theories of Money and Interest. (4) Lecture, three hours. Models of the money market, bank balance sheets and the conduct of monetary policy. Macroeconomic implications of disturbances in demand and supply. S/U or letter grading.


210A. 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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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, heteroskedasticity, multicollinearity, error-in-variables, and qualitative dummy variables. S/U or letter grading.

203C. Introduction to Econometrics III. (4) Lecture, three hours; discussion, one hour. Econometrics methods for time-series econometrics, including theory and applications. Topics include cointegration, vector autoregression, Granger causality, and modern time-series econometrics. S/U or letter grading.

M204A-M204Z. Applications of Economic Theory. (4 each) Lecture, three hours. S/U or letter grading.

M204A-M204B-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 political factors on human behavior both in U.S. and abroad. Each course may be taken independently for credit. S/U grading.

M204L-M204M-M204N. Seminars: Pharmaceutical Economics and Policy. [1–1–2] (Same as Health Policy M204L-M204M and Seminar, three hours every other week. Requisite: Health Policy M236. Limited to graduate public health and economics students. Various topics in economics of pharmaceutical industry, including drug discovery, drug regulation, and economic impact of pharmaceuticals. In Progress (M204L, M204M) and letter (M204N) grading.

204R, (4) Lecture, three hours. Preparation: completion of first-year microeconomics and graduate econometrics courses. In past decade economists have learned remarkable amount about how society works. Increased understanding has come about through the application of microeconomic principles to human behavior—explicit mathematical models and statistical techniques—and to topics such as healthcare, crime, education, and immigration. Taken together this work has led to increased understanding of inequality, how to measure it, how inequality has increased in U.S., how America differs from other rich countries and most important, what causes inequality. Study of this work, with focus on two important influences on inequality—education and health—which are two areas in which knowledge is accumulating most rapidly. S/U grading.

205. Economic Modeling. (4) Lecture, three hours. Development of applied skills by considering sequence of economic issues (e.g., peak load pricing, regulation, monopoly, capital asset pricing, Pareto efficiency). Emphasis on multivariate constrained optimization. S/U or letter grading.

Law and Economics Workshop. (2 or 3) Seminar, two hours. Requisite: course 210A or Management 405. Knowledge of empirical methods and basic calculus required. Interdisciplinary speakers series bringing together outside speakers with scholars and students from UCLA Law School and academic departments. Topics include contracts, torts, intellectual property, etc. Students write and present reaction papers. May be repeated for credit. Concurrently scheduled with Law 648 and Management 294. S/U or letter grading.

207. History of Economic Thought. (4) Lecture, three hours. Topics from classical economics, including work of Smith, Ricardo, and Mill, and developments from 1870s, including contributions of major figures of marginalist revolution, socialist controversy, and history of welfare economics. S/U or letter grading.

M208. Introduction to Demographic Methods. (4) (Same as Biostatistics M208, Community Health Sciences M208, and Sociology M213A.) Lecture, four hours. Advanced 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.

Economic Theory

211A. Contract Theory. (4) Lecture three hours. Preparation: introductory probability. Enforced requisite: course 201C. Study of trading relationships between small number of agents. Coverage of many tools and techniques of mechanism design, adverse selection, and incomplete contracting, starting with static models of moral hazard and mechanism design and development of their dynamic counterparts. Consideration of environments where agents cannot use formal contracts, studying relational contracts and trading relationships with no contracts, Analysis of wide variety of applications from industrial organization, corporate finance, personnel economics, and public economics. S/U or letter grading.

211B. Economics of Uncertainty, Information, and Games. (4) Lecture, three hours. Preparation: introductory probability. Enforced requisite: course 201C. Intended for students who are doing research in microeconomic theory and for students who want to acquire good theory background to do applied work. Coverage of combination of standard results in field and topics of current research, including notions of equilibrium in static and dynamic games, reasoning in games, repeated games, games of incomplete information, and experiments. S/U or letter grading.


213A-213B. General Equilibrium and Game Theory. (4–4) Lecture, three hours. Requisite: course 201C. Selected advanced theoretical topics of current interest and introduction to modern mathematical economics, including general equilibrium theory and game theory. S/U or letter grading.

214A-214Z. Topics in Mathematical Economics. (4 each) Lecture, three hours. Requisite: course 213B. Current research in mathematical economics. Content varies. Ordinarily only two courses in this sequence given every year. May be repeated for credit. S/U or letter grading.

214A. General Equilibrium Theory. (4) Lecture, three hours. Requisite course 201C. Core convergence theorem, cooperative and noncooperative approach to competitive equilibrium theory, perfection of competi- tive equilibria, no-surplus condition, and applications to mechanism theory and incomplete market models. May be repeated for credit. S/U or letter grading.


Also see Management-PhD 200 (decision theory)

Monetary Economics

221A-221D. Monetary Economics I to IV. (4 each) Lecture, three hours. S/U or letter grading.


221D. Monetary Economics IV. (4) Lecture, three hours. Requisites: courses 202A, 202B, 202C. Em- phasis on applied macroeconomics, with topic change each year. Students select one particular data set for each. Students work from recent work in applied macroeconomics or applied econometrics that teaches one technique or suggests one theoretical restriction on data. Subgroups of stu- dents report back to class using technique on their selective data set. S/U or letter grading.

222B-222Z. Topics in Monetary Economics. (4 each) Lecture, three hours. Current research in mone- tary economics. Content varies. May be repeated for credit. S/U or letter grading.

C226A-C226B-C226C. Seminars: Monetary E- conomics/Macroeconomics. (4–4–4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in monetary economics and macroeconomics for ad- vanced undergraduate and graduate students. Intro- duction to graduate-level research in this field. Dif- ferent topic each week, with presentation and dis- cussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C166A-C166B- C166C. S/U (C226B) and S/U or letter (C226A, C226C) grading.

C228A-C228B-C228C. Proseminars: Monetary Eco- nomics. (4–4–4) Seminar, three hours. Workshops for predissertation and dissertation writers. Literature surveys or research in progress presented, discussed, and criticized by visiting experts, UCLA faculty mem- bers, advanced graduate students. Research paper or presentation required. S/U grading.
Economics

231A. Advanced Econometrics I. (4) Lecture, three hours. Econometric methods for microeconometric models. Topics include identification, nonparametric estimation, limited dependent variable models, duration, panel data, data of hypotheses. S/U or letter grading.

231B. Advanced Econometrics II. (4) Lecture, three hours. Econometric methods for empirical research in economics. Topics include simultaneous equations, instrumental variables, panel data, treatment effects, and point and partial identification, with applications in static and dynamic games, social interactions, matching, and network formation. S/U or letter grading.

231C. Advanced Econometrics III. (4) Lecture, three hours. Advanced topics in econometrics that may vary from year to year. Current topics include empirical process models with applications to quantile regression and general M-estimation, estimation and inference methods in high-dimensional models, including LASSO and Dantzig Selector techniques, and bootstrap. May be repeated for credit. S/U or letter grading.


M232A. Bayesian Econometrics. (4) Same as Political Science M202E.) Lecture, three hours. Requisites: courses 231A, 231B. 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.


238A-238B-238C. Proseminars: Econometrics. (4-4-4) Seminar, three hours. Quarterly seminars for pre-dissertation and dissertation writers in research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Research paper or presentation required. 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 evolution of institutions and growth. Serfdom, medieval agriculture and agricultural revolution, demographic change, industrial expansion, and decline of Britain. S/U or letter grading.


251A. Theory and Policy of Taxation. (4) Lecture, three hours. Examination of influence of taxation on economic efficiency and incidence of taxation in first part of course. Topics include tax equivalences, Ramsey rules, and alternative forms of taxation. Special tax provisions, tax incentives, and progressivity in taxation in second part of course. S/U or letter grading.

251B. Cost-Benefit Analysis of Public Projects and Programs. (4) Lecture, three hours. Introduction to forecasting methods and application to decision theory. Role of government, collective goods, collective defense, local public goods, spillovers, and intergovernmental relations. S/U or letter grading.

253A-253Z. Topics in Public Finance. (4 each) Lecture, three hours. Examination of influences on public investment decisions, in second part of course. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Research paper or presentation required. S/U grading.

254A-254B-254C. Workshops: Public Economics. (4-4-4) Lecture, three hours. Designed for graduate students. Workshops for advanced graduate students. Research in progress presented by graduate students, UCLA faculty members, visiting experts. S/U grading.

Applied Microeconomics

261A-261B. Labor Economics I, II. (4-4) Lecture, three hours. S/U or letter grading.


261B. Labor Economics II. (4) Lecture, three hours. Requisite: course 261A. Models of life-cycle earnings and work behavior, with particular emphasis on recent literature examining labor force behavior and experience of women. S/U or letter grading.

262A-262Z. Topics in Labor Economics. (4 each) Lecture, three hours. Current research in labor economics. Content varies. May be repeated for credit. S/U or letter grading.

263. Development Economics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of important key topics in microeconomics of development, such as health, education, risk coping, savings, credit, and housing. Discussion of empirical methods. S/U or letter grading.

266B. Public Sector Microeconomics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of topics related to tax incidence, deadweight loss, public expenditure, income taxation and transfer programs, with emphasis on impacts of such programs on labor supply and savings, social security, unemployment insurance, and other insurance programs. S/U or letter grading.

268. Topics in Urban Economics. (4) Formerly numbered 293A.) Lecture, three hours. Current research in urban and regional economics. Content varies. Serves as forum for presentation of papers on urban economics by students, UCLA faculty members, and visitors. May be repeated for credit. S/U or letter grading.


C262A-C262B-C262C. Seminars: Labor Economics. (4-4-4) Seminar, three hours. Designed for pre-dissertation and dissertation writers. Lecture, three hours. Review of most current developments in labor economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C156A-C156B-C156C. S/U (C262B) and S/U or letter (C262A, C262C) grading.
Industrial Organization

271A-271B. Industrial Organization, Price Policies, and Regulation I, II. (4-4) Lecture, three hours. Designed for predissertation and dissertation writers. Seminar, three hours. 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. Research paper required. S/U grading.


272A-272Z. Topics in Industrial Organization. (4 each) Lecture, three hours. Current research in industrial organization. Content varies. May be repeated for credit. S/U or letter grading.

273A. Public Utility Regulation. (4) Lecture, three hours. Theory, practice, and consequences of regulation of industries such as power, gas, water, telecommunication, broadcasting, and other regulated industries; experiences of unregulated monopoly and public enterprises by way of contrast. S/U or letter grading.


Development Economics


286B. Cost-Benefit Analysis of Development Proj- ects. (4) Lecture, three hours. Requisite: course 286A. Methodology for evaluating investment projects, various types of issues that arise in developing countries. Discussion of social versus private evaluation criteria; applications to highway, electricity, and irrigation projects. S/U or letter grading.

287A-287Z. Topics in Development Economics. (4 each) Lecture, three hours. Current research in development economics. Content varies. Courses in this sequence not 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. Focus on dynamism developed by Japan, Korea, and China. Emphasis on role of international investment and trade, especially with the 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 level 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 interna- tional economics. Content varies. May be repeated for credit. S/U or letter grading.


Econometrics

401A. Microeconometrics. (4) Lecture, three hours. Limited to Master of Applied Economics stu- dents. Introduction to main topics of graduate macro- economics, including macroeconomic data, models of economic growth, supply and demand of factors of production, business cycle models, unemployment, monetary policy and inflation, and fiscal policy and deficits. Letter grading.

401B. Applied Macroeconomics. (4) Lecture, three hours. Limited to Master of Applied Economics students. How to be sophisticated users and producers of re- search on issues and policies in several core areas of labor, public, and health economics. Rigorous analy- ses of the policy questions with cutting-edge em- pirical analysis. Letter grading.

402A. Macroeconomic Theory. (4) Lecture, three hours. Limited to Master of Applied Economics stu- dents. Introduction to main topics of graduate macro- economics, including macroeconomic data, models of economic growth, supply and demand of factors of production, business cycle models, unemployment, monetary policy and inflation, and fiscal policy and deficits. Letter grading.

402B. Applied Macroeconomics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Study of alternative theories of causes of un- employment and inflation and approaches such as the Keynesian approach to monetary and fiscal policy and modifica- tions and extensions of Keynesian ideas designed to explain financial crises. 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-se- ries methods used in economics, business, and gov- ernment. Topics include random variables, hypothesis testing, estimation, distribution functions, simple and multiple regression, and estimation with stationary/ nonstationary processes. Letter grading.

403B. Applied Econometrics. (4) Lecture, three hours. Limited to Master of Applied Economics stu- dents. Basic tools necessary for high-level cutting-edge empirical research. Coverage of variety of
methods suited for empirical studies that apply to experimental data, quasi-experimental data, panel data, and cross-sectional data. Letter grading.

404A. Writing and Presentation Skills for Economists I. (4) Seminar, three hours. Limited to Master of Applied Economics students. Designed to help students develop communication and presentation skills essential for success in any aspect of business. Practice in writing economics documents for variety of professional audiences. Writing taught as process—brainstorming, collaborating, continually revising, and challenging ideas. Presentation skills to focus on presenting information clearly and organizing ideas, with emphasis on role of audience when presenting and cause audience determines diction, style, tone, organization, research, and ideas. Grammar incorporated as needed, especially in regard to writing. Letter grading.

404B. Writing and Presentation Skills for Economists II. (4) Seminar, three hours. Limited to Master of Applied Economics students. Builds on skills learned in course 404A. Writing component to focus on summarizing, 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 economic activity, including review 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 major ideas in environmental economics, consequences of pollution, and consequences of pollution, with special emphasis on understanding China’s environmental challenges and policy options. 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.


415. Evidenced-Based Policy Analysis in Labor, Public, and Health Economics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Offers introduction to key policy questions in labor, public, and health economics, including health care, education, unemployment, training programs, and welfare. Economic principles at heart of these topics and new approaches to evaluating policies that affect them, including data, current case evidence, cutting-edge empirical methods, and their relation to microeconomic theory. Letter grading.

421. Incentives, Information, and Markets. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Introduction to concepts of information economics that lie at heart of modern economics and application of them to understanding incentives within firms, as well as competition between them. Study of theoretical models and functioning of real-life markets, such as insurance, labor, and consumer markets. Consideration of whether we can design policies that improve market outcomes. Role of models in economics, and how to tie data and theory together. Letter grading.

422. International Economics. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Investigation of several theoretical frameworks in international economics followed by applications to empirical questions. Neoclassical trade models and 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.

423. Introduction to Applied Data Science. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Designed to build strong bases in tools and methods of data science and analytics. Introduction of tools for capture, transformation, imputation, visualization, and mapping of data for downstream processing in analytics pipelines. Introduction to analytics subsystems and scalable storage and processing of very large and complex datasets. Information theory, computational analysis, and behavioral economics with specific emphasis on data science in economics. Letter grading.

424. Income Inequality. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Investigation of rise of earnings inequality (with emphasis on U.S.), focusing on learning how to use models and data to quantify impact of range of forces on inequality. Overview of broad empirical trends, with emphasis on understanding how to document these facts ourselves. Consideration of three classes of potential explanations for these patterns: international connections (e.g., trade and immigration), institutional change (e.g., minimum wage and unionization), and technical change (e.g., computerization and specialization). Focus on quantifying these forces ourselves. Study of top income inequality: why have extremely rich become much richer than very rich? Focus on CEO compensation. Letter grading.

Special Studies

495. Teaching College Economics. (2) Seminar, one hour; laboratory, three hours. Designed for graduate students. Required of all new teaching assistants. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Individual Study. (2 to 8) Tutorial, to be arranged. Directed individual study or research. S/U grading.

597. Individual Study: Graduate Examinations. (2 to 8) Tutorial, to be arranged. Directed individual study in preparation for MA comprehensive examination or PhD qualifying examinations. S/U grading.


EDUCATION

Graduate School of Education and Information Studies

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Nick D. Enyedy, PhD
Megan L. Franke, PhD
Kimberley Gomez, PhD
Louis M. Gomez, PhD
Sandra H. Graham, PhD (Presidential Professor of Education and Diversity)
Tyrone C. Howard, PhD
Sylvia Hurtado, PhD
Connie L. Kasari, PhD
Douglas M. Kellner, PhD
Reynaldo F. Macias, PhD
Teresa L. McCarty, PhD (George F. Kneller Professor of Education and Anthropology)
Patricia M. McDonough, PhD
Scope and Objectives

As one of the top-ranked public graduate programs in education in the nation, the Department of Education is guided by a commitment to integrate theory and practice and to improve educational practice and policy. The department attracts prominent scholars and is internationally recognized for its research centers in evaluation, higher education, child development, and urban education. Whether students choose to pursue a PhD, an EdD, a master’s degree, or a services or instructional credential, they graduate with a broad understanding of educational theory and tested practice.

Undergraduate Study

Education Studies Minor

The Education Studies minor is intended to address the diverse information needs of the UCLA undergraduate community to (1) allow students to learn more about the multitude of contemporary professional research issues confronting the field of education, (2) understand the complex interactions between the legal, social, political, and economic forces that influence and shape educational policies in America, (3) provide an introductory course sequence for students who wish eventually to pursue careers in education, whether as teachers or researchers, and (4) offer an analysis of current educational practices by which UCLA students can become better consumers of educational services as future parents, taxpayers, and citizens.

To enter the minor, students must have completed one minor course from the approved course list, have at least sophomore standing, and file an application. Students must have at least sophomore standing with a minimum overall 2.3 (C+) grade-point average, and file an admission application with the Education Studies academic adviser in the Office of Student Services, 1009 Moore Hall. Applicants are expected to be committed to inquiry of issues central to educational research and practice. Students must follow the program of study in effect at the time of their admission. Students completing their sophomore year are encouraged to apply.

Required Upper-Division Courses (32 units minimum): A minimum of four core courses selected from Education M108, 118 through 138, 149, 187, and M194A, M194B, M194C (to be taken concurrently with either M182A, M182B, M182C or M183A, M183B, M183C) and three additional courses selected from the core courses listed above or from 80, 92A through 92F, 92G may be applied toward the elective requirement. Courses CM178/CM178L, 85, 191A through 191X, 192A through 192F may be applied toward the elective requirements.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

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

Graduate Degrees

The Department of Education offers Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Education, Master of Education (MEd) degree, Doctor of Education (EdD) degree, Doctor of Philosophy (PhD) degree in Special Education (with California State University, Los Angeles), and Doctor of Education (EdD) degree in Educational Administration (with UC Irvine).

One articulated degree program (Education MEd/Latin American Studies MA) and one concurrent degree program (Education MEd, MA, EdD, or PhD/Law JD) are also offered.

Education

Lower-Division Courses

10. Introduction to Humanities, Social Sciences, and Scientific Inquiry. (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. Requires participating Student Interned Access Center (SIAC) program staff with basic understanding of evaluation skills. Students learn how to describe programs in terms of inputs, activities, outputs, and outcomes and are able to frame relevant and measurable evaluation questions based on program needs. P/NP grading.

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 and departmental honors programs. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through readings, individual research, and other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors contract noted on transcript. Letter grading.

92A. Study of Teaching and Learning Methods. (4) Seminar, three hours. Analysis of learning theory and teaching methods in light of research on student characteristics, learning environments, student-instructor interaction, and application of theory and research to practice. Letter grading.

92B. Practicum in Higher Education. (4) Seminar, three hours. Enforced requisites: courses 92A, 92F. Examination of intellectual and personal development of college students through differential environments and instructional experiences. Letter grading.

92C. Dynamics of Peer Mentoring. (4) Seminar, three hours. First course in series of three designed to provide proficiency in learning principles and procedures relevant to peer mentoring. Undergraduate students present College of Letters and Science academic support workshops to their peers with intent of enhancing academic and career perspectives. Concentration on relationship between creativity and presentation. P/NP or letter grading.

92D. Development of Peer Mentoring. (4) Seminar, three hours. Requisite: course 92C. Second course in series of three designed to provide proficiency in learning principles and procedures relevant to peer mentoring. Undergraduate students present College of Letters and Science academic support workshops to their peers with intent of enhancing academic and career perspectives. Concentration on relationship between creativity and presentation. P/NP or letter grading.

92E. Evaluation of Peer Mentoring. (4) Seminar, three hours. Requisite: course 92D. Third course in series of three designed to provide proficiency in learning principles and procedures relevant to peer mentoring. Undergraduate students present College of Letters and Science academic support workshops to their peers with intent of enhancing academic and career perspectives. Concentration on relationship between creativity and presentation. P/NP or letter grading.

92F. Academic Success in Undergraduate Experience. (2) Seminar, one hour. Directed for first-year or transitioning students to promote understanding of factors involved in making adjustments to college experience, both academic and social. 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 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 and Chicano Studies M102) Seminar, two hours; discussion, two hours. Theoretical and empirical overview of Chicana/Chicano educational issues in U.S., with special emphasis on disenfranchising effects of racism, gender, class, and immigration status on Chicana/Chicano educational attainment and achievement. Examination of how historical, social, political, and economic forces impact Chicana/Chicano 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 M102) Seminar, two 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 stated goals; community assessment, and assess original syllabi, lesson plans, and community learning projects for multiple publics in inner-city schools and arts organizations. Collaboration with partner schools in planning, teaching, and evaluation of arts education programs in dance, music, theater, and visual arts. P/NP or letter grading.

M108. Sociology of Education. (5) (Same as Sociology 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 public education; family background, class, race, and gender affect educational achievement and attainment; stratification between and within schools; effects of education on socioeconomic status, attitudes, and social participation; educational policies to improve school quality and address socioeconomic inequalities. Letter grading.

M112. Inner and Outer Worlds of Children: Social Policies. (4) (Same as Honors Collegium M112) Seminar, four hours. Practices and analysis of social policies impacting on children. Topics include assessment, social justice, institutional, social, and political perspectives on role of education in U.S. society, as well as critical historical overview of discipline and current debates and dilemmas of doing anthropological research in educational settings. Issues of race, gender, social policy formation and implementation, and focus on Freirean pedagogy. Concurrently scheduled with course C207. P/NP or letter grading.

M120. Historical and Contemporary Social Policy Issues. (4) (Same as Sociology M121) Lecture, four hours. Requisite: course C120. Historical and contemporary analysis of policies impacting on children. Topics include legal and policy change, the delivery of services, and the impact of public policy on families, schools, and children. Focus on educational and social issues affecting children in different social contexts. Letter grading.

M127. Educational Psychology. (5) Lecture, two hours; discussion, two hours. Broad overview of educational psychology, with examination of relationship of psychological theories to teaching and learning, with special emphasis on 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 designed to familiarize students with discipline of anthropology and subfield of anthropology, educational psychology, and sociology of education with regards to the 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.

M129. Educational Psychology. (5) Seminar, four hours. Focus on educational psychology, with examination of relationship of psychological theories to teaching and learning, with special emphasis on 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.

M131. 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, and enrolled in minimum of 12 units (excluding this course), Individual contract required; consult Undergraduate Research Center. May be repeated, P/NP grading.
152C. Global Citizenship Education. (4) Lecture, four hours. Questions regarding nature and possibility of education that can foster global citizenship necessary to understand and resolve world’s most pressing issues. Focus on curriculum and instruction of global citizenship education. Using local and global resources, students will confront various perspectives, curricula, and pedagogies pertaining to teaching and implementation of global citizenship education at different levels of education. Letter grading.

CM178. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Gender Studies CM178.) Seminar, three hours. Corequisite: course CM178L. Use of range of pedagogical approaches to theory and practice of critical media literacy, including history of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM178L. Letter grading.

CM192B. Undergraduate Practicum in America Reads. (2) (Same as American Studies CM192B.) Fieldwork, three hours. Enforced corequisite: course CM194A. 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.

CM210. Language, Literacy, and Human Development Ethnography. (2) (Same as African American Studies CM210.) Fieldwork, three hours. Enforced corequisite: course CM194A. 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.

CM212C. Language, Literacy, and Human Development Ethnography, Fieldwork. (2) (Same as African American Studies CM212C.) Fieldwork, three hours. Enforced corequisite: course CM194A. 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.

CM213A. Language, Literacy, and Human Development Ethnography. (2) (Same as African American Studies CM213A.) Fieldwork, three hours. Enforced corequisite: course CM194A. 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.

CM219B. Gender, Identity, and the Schooling Experience. (4) Seminar, three hours; outside study, six hours. Enforced corequisite: course CM194B. 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.

CM253B. Culture, Gender, and Human Development Ethnography. (3) (Same as African American Studies CM253B.) Fieldwork, six hours. Enforced corequisite: course CM194B. 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.

189H. 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 instructor to 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 contract must be on transcript. Letter grading.

M190. Arts Education Undergraduate Practicum: Preparation, Observation, and Practice. (4) (Same as Arts Education M190) Seminar, three hours. Enforced requisite: course CM104. Limited to juniors/seniors. Preparation and supervision 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.

M190SL. Arts Education Undergraduate Practicum and Capstone Project. (4) (Same as Arts Education M190SL) Seminar, three hours; outside study, six hours. Enforced requisite: courses CM104, CM190. Limited to juniors/seniors. Continuation of arts education training and supervised practicum for advanced undergraduate students participating in Visual and Performing Arts Education minor. Students continue to implement and evaluate original arts education programs under guidance of faculty members in small classroom settings. May be repeated for credit. Letter grading.

191A-191X. Current Issues in Education. (4 each) Seminar, two hours. Limited to juniors/seniors. Enforced corequisite course organized on selected current issues basis, integrating field observations and readings through seminar discussions. Development of culminating project. Consult Schedule of Classes for topics and instructors. May be repeated for credit. Letter grading.

192A. Undergraduate Practicum in Community-Based Outreach Programs. (2) Seminar, two hours. Enforced corequisite: course 192B. Enforced corequisite: course 170A. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to study learning and developmental factors as well as cultural, social, and economic forces that affect student academic achievement. Exploration, testing, and application of various learning styles that enable students to become more effective learners. Letter grading.

192B. Undergraduate Practicum in America Reads. (2) Seminar, two hours. Enforced corequisite: course 192B. Limited to juniors/seniors. TB test required prior to first day of instruction. Training and supervised practicum for undergraduate students, including tutoring and mentoring of K-6 students at America Reads sites. Letter grading.

193Y-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 low socioeconomic high schools. Letter grading.
M194A. Language, Literacy, and Human Development Research Group Seminars. (5) (Same as African American Studies M194A.) Seminar, three hours; laboratory, two hours (when scheduled). Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and language. May be taken independently for credit. Letter grading.

M194B. Culture, Gender, and Human Development Research Group. (Same as African American Studies M194B.) Seminar, three hours; laboratory, two hours (when scheduled). Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and gender. May be taken independently for credit. Letter grading.

M194C. Culture, Communications, and Human Development Research Group Seminar Groups. (5) (Same as African American Studies M194C) Seminar, three hours; laboratory, two hours (when scheduled). Seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and techniques. May be taken independently for credit. Letter grading.

195. Community Internships in Education. (4) Tutorial, one hour; fieldwork, eight to 10 hours. Internship in K–16 schools or community to be supervised by Center for Urban Teaching and Learning faculty member. Students meet biweekly with teaching assistant, write reflective journals, and prepare final paper. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

195CE. Community or Corporate Internships in Education. (4) Tutorial, one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in supervising preparation K–12 settings coordinated through Center for Community Learning. Students meet on regular basis with faculty sponsor or designee to construct series of reading and writing assignments that examine educational issues related to meaningful work at internship site. Students expected to learn ways in which urban schools are structured, organized, and operate. May be repeated for credit. Individual contract required. Letter grading.

196C. Instructional Apprenticeship in Teaching and Learning at UCLA Lab School. (4) Tutorial, 10 hours. Limited to juniors/seniors. Training and supervised practice in an in-service internship for students at UCLA Lab School (Corinne A. Seeds campus), K–6 elementary school on UCLA campus. Students gain understanding of innovative educational work that goes into teaching and learning at UCLA Lab School through seminars, readings, observations, and discussions. Individual meetings with faculty mentor throughout term. May be repeated for credit. Individual contract required. Letter grading.

196D. Instructional Apprenticeship in Teaching and Learning at UCLA Partner Schools. (4) Tutorial, 10 hours. Limited to juniors/seniors. Introduction to K–12 teaching profession through training and supervised practice in advanced undergraduate experience at UCLA partner schools (Nora Stony Elementary School, Brockton Elementary School, Emerson Middle School, University High School, UCLA Community School, or other LAUSD schools coordinated by students). Students gain grounded understanding of social issues in education through readings, observations, direct support in classrooms, and tutoring activities. Individual meetings with faculty mentor throughout term. May be repeated for credit. Individual contract required. Letter grading.

199R. Research Apprenticeship in Education. (2 to 4) Tutorial, one to two weeks, per unit. Supervised development in graduate research projects for juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

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. Assigned reading and tangible evidence of mastery of subject matter may be required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Education. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation in field of faculty mentor. 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 development and processes of theory, regardless of their field of interest. S/U or letter grading.


200C. Analysis of Survey Data in Education. (4) Lecture, three hours; laboratory, two hours. Requisite: course 200B. Introduction to techniques of processing and analyzing and quasi-experimental quantitative data. S/U or letter grading.


201C. History of American Education. (4) (Same as History M264.) Discussion, three hours. History of educational thought and of social forces impinging on American education from 1880s to present. Analysis of relationship between educational and social forces, and aims and practices of American education today. 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 educational analysis. Concept of culture through various anthropological perspectives, with focus on theories of culture, cultural transmission, education, 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 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 of education in development of less-industrialized countries of world. S/U or letter grading.

204D. Minority Education in Cross-Cultural Perspective. (4) Lecture, four hours. Historical and contemporary analyses of educational policies with regard to ethnic, religious, and linguistic minorities through selected national and international case studies. Introduction to cross-cultural education in representative countries in relation to social, political, and economic systems. S/U or letter grading.


204F. Nonformal Education in Comparative Perspective. (4) Lecture, four hours. Comparative and international study of organized and systematic educational activity for children, youth, and adults carried on outside of schools. Types of programs include, among others, 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 theory, experimentation, evaluation, and future of computer systems in education, with emphasis on computer-assisted instruction (CAI), and use of computers to teach programming and 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 education 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 organizations, teacher/student relations, and reform in education at elementary, secondary, postsecondary levels. S/U or letter grading.

208B. (Immigrant Youth, Ethnicity, and Education 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, access, educational access, cultural literacy, teacher empowerment, 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 statistics, survey research, case/program evaluation, and research proposal writing. Letter grading.
210. Education as Profession: Theory, Research, and Practice. (4) Lecture, 90 minutes; discussion, two and one half hours. Introduction to major issues and approaches in educational research through series of faculty presentations, selected readings, and writing assignments. S/U or letter grading.


211C. Advanced Item Response Theory. (4) Lecture, four hours. Requisites: course 211A or 211B or Psychology 255A, Psychology 255B. Review of standard item response theory models, multidimensional models, multiple group models, and models with covariates, item and person parameter estimation, differential item functioning analysis, testing model fit, linking and scale alignment, computerized adaptive testing. S/U or letter grading.

212A. Learning and Education. (4) Lecture, four hours. Models of learning, modeling, reinforcement, motivation, encoding, memory, transfer, individual differences, learning styles, and contemporary issues. S/U or letter grading.


213C. Group Counseling Theory and Process. (4) Lecture, three hours; discussion, one hour. Requisite: course 411A. Group productivity, leadership in groups, social perception, attitude formation, and effect of behavior changes in individuals and groups. Evaluation of social, psychological, and educational principles related to therapeutic experiences of individuals in small groups. Letter grading.

214A. Counseling Theory and Practice. (4) Lecture, four hours. Overview of assessment issues and methods used in counseling and student affairs activities. Emphasis on concepts of testing and measurement, measurement theory, and contemporary issues that are significant in influencing assessment in student affairs programs. Letter grading.

214C. American Professoriate: Faculty Status, Role, and Performance. (4) Discussion, four hours. Historical and contemporary issues involving American professoriate. Topics include employment, academic culture, tenured status, research, reward structure, faculty development, and contemporary issues that are significant in influencing assessment in student affairs programs. Letter grading.


214F. Student Problems: Social Context. (4) Lecture, four hours. Designed to assist students in understanding institutional forces that lead to student dysfunctions. Consideration of number of contemporary social problems that are of concern to school counselors, educators in general, and behavioral scientists. S/U or letter grading.

215. Personality, Motivation, and Attribution. (4) (Same as Psychology M239.) Discussion, three hours. Current research and theory relating personality variables (e.g., attributional styles, self-esteem) to motivational concerns such as persistence and intensity of behavior. Perceived causes of outcomes in achievement and affective domains. S/U or letter grading.


217A. Social Development and Education. (4) Seminar, four hours. Biological and familial, school, and other influences on children; development in context of child’s family, peer group, and school; application of developmental theory and research to educational practice. S/U or letter grading.

217B. Cognitive Development and Education. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Critical review of theories and research in cognitive development, with focus on work of Piaget and Vygotsky, and relation of work within this field to issues in educational practice. S/U or letter grading.

217C. Personality Development and Education. (4) Same as Psychology M217E. Lecture, four hours. Review of research and theory of critical content areas in personality development that bear on school performance: achievement motivation, self-concept, aggression, and cognitive and behavioral changes; review of status of emotional behavior in personality theory and development. S/U or letter grading.

217D. Language Development and Education. (4) Lecture, four hours. Requisite: course 211A. Theory and research on how children develop their first language; sociolinguistic and psycholinguistic issues in preschool and primary years; bilingual and dialectical issues. S/U or letter grading.

217E. Emerging into Adulthood. (4) Seminar, four hours. Examination of theories and research related to transition to adulthood and role of race/ethnicity, gender, and immigration status in shaping development topics. Topics include historical and cross-cultural comparisons of emerging adulthood; ethnic, racial, and gender identity; family relationships and expectations; college opportunities and experiences; entering workplace; alternative pathways (incarceration and military); and civic engagement. Letter grading.

217F. Adolescent Development. (4) Same as Psychology M242G. Seminar, four hours. Topics may include historical and cross-cultural comparisons of emerging adulthood; ethnic, racial, and gender identity; family relationships and expectations; college opportunities and experiences; entering workplace; alternative pathways (incarceration and military); and civic engagement. Letter grading.

217G. Language Development and Education. (4) Same as Psychology M242G. Seminar, four hours. Topics may include historical and cross-cultural comparisons of emerging adulthood; ethnic, racial, and gender identity; family relationships and expectations; college opportunities and experiences; entering workplace; alternative pathways (incarceration and military); and civic engagement. Letter grading.

218. Measurement of Educational Achievement and Aptitude. (4) Lecture, four hours. Requisite: course 217A. Critical study of tests of achievement and aptitude, with emphasis on group tests; relation of achievement to aptitude; social implications of measurement of intelligence; elements of validity and reliability. S/U or letter grading.

219. Laboratory: Advanced Topics in Research Methodology. (4) Laboratory, four hours. Provides assistance in design of research and interpretation of data to advanced students from other divisions. Coverage of special topics not included in other courses on research methods. S/U or letter grading.

220A. Inquiry into Schooling: Organization and Change. (4) Lecture, four hours. Critical analysis of issues in reconstruction of schooling; concepts of function and structure of schooling; organization theory; systems approaches in analysis of organization development and change. S/U or letter grading.

221. Computer Analyses of Empirical Data in Education. (4) Lecture, two hours; laboratory, two hours. Required of courses 220A or 220B designed to develop conceptual and technical skills needed for designing and executing empirical research utilizing statistical packages. Each student conducts two original studies. Emphasis on techniques, data analysis and interpretation of results. S/U or letter grading.

222A. Introduction to Qualitative Methods and Design Issues in Educational Research. (4) Lecture, three hours; discussion, one hour. Introductory course for students interested in epistemology, theories, and styles of qualitative research in educational settings. Theory and practice of naturalistic, qualitative research design covered in second half of course. Letter grading.

222B. Participant-Observation Field Methods. (4) Lecture, two hours; discussion, two hours. Requisite: course 222A. Continuation of fieldwork project started in course 222B, with focus on practical skills and conceptual/methodological issues involved in recording and analyzing qualitative data. Letter grading.

222D. Qualitative Inquiry; Special Topics. (4) Lecture, four hours. Special topics course on some field or aspect of qualitative inquiry. Topics may include classroom ethnography, advanced ethnographic writing and/or multimedia design, discourse analysis, and microethnography of social interaction. S/U or letter grading.


234. 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.

235. Issues in Education of Exceptional Individuals. (4) Lecture, four hours. Designed for graduate students. Analysis of major research regarding conceptual/policy trends, issues, and programs for exceptional individuals; consideration of commonalities and differences among exceptional individuals. S/U or letter grading.

236. 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.

237. Seminar: Social Problems of 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,
227A. Research on Learning Characteristics of Exceptional Individuals. (4) Lecture, four hours. Requisite: course 225B. Overview of research and theory regarding characteristics of exceptional individuals and discussion of application of this work to educational practice. S/U or letter grading.


228. Observation Methods and Longitudinal Studies. (4) Lecture, two hours; discussion, two hours. Required of M230A. Design of observational and longitudinal studies. Formulation of study conclusions concerning influences on children’s development. Conduct of observations; processing and analysis of data. Emphasis on use of computer methods in 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.

CM220B. 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, 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, households) with consideration of alternative analytical models. Letter grading.


233. Professional Writing in Education. (4) Lecture, four hours. Introduces students to writing as professionals, 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 relations 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 research controversies that may impact ability of urban educators to meet needs of students in multicultural society, with special emphasis on such equity-related issues as desegregation, school finance, citizenship, and rights of language minority students. Letter grading.


239. Organization and Governance of Educational Systems. (4) Lecture, four hours. Academic organizations, policymakers, and postsecondary, are most appropriately studied as complex, professionalized organizations. Emphasis on characteristics of educational institutions and systems as organizations: environmental relations, governance structures, processes, and patterns of decision making and 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 and 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 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 theory and pedagogy of intergroup dialogue, particular attention to relationships between intergroup dynamics, structural inequalities, systems of privilege and oppression, and mental health outcomes and disparities among populations. Concurrently scheduled with course C160. Letter grading.


246A. Decision Analysis and Advanced Computer Methods for Educational Policy 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 specific 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 issues, ideas, and literature that constitute this division, with emphasis on underlying social and political issues that shape higher education and organizational change. Letter grading.

250B. Organizational Analysis of Higher Education. (4) Lecture, four hours. Designed for graduate students. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute this division, with emphasis on underlying social and political issues that shape higher education and organizational change. Letter grading.

250C. Theoretical Frameworks of Higher Education. (4) Lecture, four hours. Designed for graduate students. Overview of various social sciences theories used to analyze institutions and issues of contemporary higher education. Explanation of how theory and methodology affect research design and framing of research questions in studies of higher education. Letter grading.

252A. Seminar: Educational Organizations. (4) Seminar, four hours. Requisite: course 252A. 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, 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. Designed for graduate students. Contemporary issues in African educational 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.


253D. Seminar: Latin American Education. (4) Seminar, four hours. S/U or letter grading.

253E. Seminar: European Education. (4) Seminar, four hours. S/U or letter grading.

253F. Seminar: Education in Revolutionary Societies. (4) Seminar, four hours. Multidisciplinary and comparative study of socialist educational theory examined through specific case studies of Mao, 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, socioeconomic status, education, and in-service teacher preparation, evaluation, and S/U or letter grading.

253H. Seminar: Chicanos/Hispiancias 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, later grades). S/U or letter grading.

253I. Education and Social Change in Middle East and Islamic World. (4) 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 East, including Pacific Rim, South and Central Asia. 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.

258B. Seminar: Problems in Instructional Development. (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 of 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 Second Language programs, international internships and careers, faculty development in international travel and research, international partnerships/branch campuses, international development and grant projects, international alumni, 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.

263. Seminar: Higher Education. (4) Seminar, four hours. May be repeated for credit. S/U or letter grading.

264. Seminar: Teacher Education. (4) Seminar, four hours. Research, issues, and practices in preservice and in-service teacher preparation, evaluation, and certification. Social, philosophical, and methodological issues and current trends in America and abroad. Opportunities to observe, participate in, and discuss teacher education programs. S/U or letter grading.

265. Higher Education Policy. (4) Lecture, four hours. Prerequisites: courses 250A, 250B. Understanding public policy for higher education requires understanding of both issues and policy process. Review of major topics on which U.S. government is active as well as key actors and their influence. Letter grading.

M266. Feminist Theory and Social Sciences Research. (4) Same as Gender Studies M266.) Lecture, four hours. Examination of how diverse feminist social theories in last quarter century have both challenged and strengthened conventional social sciences theories and their methodologies. Introduction especially to feminist standpoint theory, distinctive critical theory methodology now widely used in social sciences. Letter grading.


268. Theorizing Reading: Rhetorics of Academic Discourse. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Introduction to theoretical approaches to reading, such as post-structuralist, feminist, deconstruction, reader reception, and semiotics, and to some leading theorists of reading, such as Roland Barthes, Wolfgang Iser, Barbara Johnson, Stanley Fish, and Gayatri Spivak. Letter grading.

269. Representations of Education in Cinema. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Exploration of ways in which we 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 artifacts of media culture. Emphasis on developing critical media literacy as goal of cultural studies. Letter grading.

271A. Proseminar: Educational Psychology. (2) Seminar, two hours. Introduction to variety of research issues in field of educational psychology, including topics related to human development, learning and instruction, 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 Systems. (4) Lecture, two hours; discussion, two hours. Overview of school administration, teaching, curriculum, and policy studies. Focus on American educational system and international system wherein federal, state, and local policy, school administration, curriculum theory and design, and teaching are intricately 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 multiculturalism and teacher education. Exploration of how cultural curricula and literatures refer to eview of diverse number of anthropological, sociological, educational curricula and literatures. Letter grading.

274. Science, Technology, and Social Research after Postmodernism. (4) Lecture, two hours; discussion, two hours. Examining of new 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 the major theoretical writings in liberal, neo-Marxist, left liberal/postmodernist, and Marxist subfields of critical education tradition. Letter grading.

285. Education and Law. (4) Lecture, four hours. Examination of recent high-profile, education-related disputes and legal topics. Expenses explored include campus safety and privacy, student freedom of expression, technology-related issues and concerns, the relationship of school, cyberbullying, and accountability for off-campus behavior. Examination of access to quality education by analyzing disputes arising at every stage of education process, from issues regarding practices that may engender school- to-prison pipeline to ongoing legal battles regarding race-conscious policies, K-12 teacher tenure, school sports, unmet needs of English language learners, issues of school discipline system, impact of burgeoning charter school movement, and implementation of federal Every Student Succeeds Act. Concurrently taught with Law 282. Letter grading.

287. Research on Language Issues in Education. (4) Seminar, two hours. Focus on form, function, and informal education, including study of opportunities and challenges offered by language variation found in schools. Examination of language acquisition theories alongside language ideologies, language policies, and multiculturalism. Letter grading.

288. Research Apprenticeship Course. (2) Discussion, two hours. Course facilitates mentorship mode 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 Metropolitan Schools. (4) 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 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 a dramatically new kind of major ethnic and cultural identity. How this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformation and globalization of workplace and dramatic decline of industrial employment in advanced nations, not only greatly raise stakes on creating equal opportunity but also cut off what were previously extremely important parts of intergenerational mobility. In Progress (M289A) and letter (M289B) grading.

290. Educational Policy Analysis: Research, Theory, and Practice. (4) Seminar, four hours. Broad overview of development of educational policy from 1950s to present. Examination of current issues and debates within educational policy in U.S. through different theoretical lenses. Exploration of major bodies of research on educational policy and alternative paradigms. Letter grading.

294A-M294B. High School Reform: Persisting Failures, Urgent Challenges. (1 to 8 each) (Same as Law M243A-M243B) Seminar, four hours. Course M294A is enrollment in 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, government has implemented in early grades have been produced, and very well-regarded system of higher education has been established— but reform of high school continues. Exploration of institutional and political 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 (M243B) 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 he took. 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); International (1974 to 1980) where he acted as President of 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 implication his analyses, critiques, and impact in world, his methodology of generative word, and comparisons with other theoretical referents. Letter grading.

296A-296G. Seminars: Research Topics in Educa- tion. (2 each) Seminar. Designed study of current research and analysis of current topics in education. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

296H. Research Topics in Education: Organiza- tional Theory. (2) Lecture, two hours. Examination and analysis of organizational theories, especially as they apply to school organizations. Letter grading.

296I. Theory in Educational Inquiry. (2) Seminar, two hours. Theory and its application to study of educational settings and institutions. Examination of major paradigms, important schools of thought, and particular theoretical areas and theories within field of education, with focus both on conceptually and empirically based works as means for grounding discussions of theory and application. Letter grading.

296J. Introduction to Survey Research Methods. (2) Seminar, two hours. Introduction to conceptual and methodological issues involved in survey-based research in education, offering structured opportunity to practice various practical aspects of survey (instrument development, data collection, analysis, and presentation) development, interview format, data collection and delivery: question writing, pretesting, and testing; and sample design and considerations, nonresponse, measurement error, and data preparation. Letter grading.

296K. Research Design. (2) Seminar, two hours. Effective educational leaders require ability to accurately diagnose educational problems before jumping to proposed solutions. Studies design must include systematic ways to collect and analyze data, as well as minimize potential threats to validity of data and analysis. Designed to equip students with tools needed to design research to address specific real-world educational problems. Basic understanding of research designs as strategies for investigating educational problems, such as types of questions that can be addressed, and experimental and quasi-experimental designs with qualitative and mixed methods studies, design components, planning for fieldwork and data collection, sampling, ethics, and credibility. Letter grading.

constituent parts and, vice versa, which is constructed out of materials that can be identified and analyzed. S/U grading.

301. Introduction to Information and Presentation Tools. (2) Laboratory, two hours. Limited to credential program students and graduates. Introduction to information tools, presentation software and multimedia elements. S/U grading.

305. Health Education for Teachers. (2) Lecture, two hours. Limited to Teacher Education Program students. Focuses on techniques for teaching health education. Topics include health behaviors, human sexuality, community health resources, and analysis of state’s health framework. S/U grading.

309. Methodologies for English Language Learners. (2) Laboratory, two hours. Limited to credential program students. Focuses on literature for English language learners. Discussion of competencies needed by pre-service teachers of English language learners, including strategies for teaching in and through English. Topics include cultural issues, organizational approaches, and communicative approaches to the classroom. Letter grading.

310. Professional Communication for Graduate Students in Education. (2) Lecture, two hours. Focuses on professional communication skills for graduate students. Topics include writing, presentation on topics of interest, and 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. Focuses on the use of computers in educational environment. Discussion of issues on why and how to integrate computers into curriculum and hands-on practice that allows students to demonstrate skills discussed. S/U grading.


316A-316B. Principles and Methods for Teaching Reading for Single Subject Instruction. (2-2) Lecture, two hours. Course 316A is requisite to 316B. Reading instruction in secondary schools. Analysis of reading programs; study of relationships between language/culture/cognition and reading. Examination of instructional strategies and programs; analysis and practice of alternative instructional methods. Observation and participation in schools. Letter grading.

318A. Integrated Methods for Elementary Teachers. (3) 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. Emphasis on California state frameworks and California content standards for grades K-12 that address needs and interests of diverse students. Letter grading.

318B. Integrated Methods for Elementary Teachers. (4) Lecture, four hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Emphasis on California state frameworks and California content standards for grades K-12, including English Language Development Standards—all of which address needs and interests of diverse students. Letter grading.

318C. Integrated Methods for Elementary Teachers. (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. Emphasis on California state frameworks and California content standards. Letter grading.


320A-320B-320C. Secondary Content and Literacy Methods. (3-3-3) Lecture, three hours. Focuses on development of instructional programs and analyses and practices of instructional methods for teaching content 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. Letter grading.

321A. Secondary Content and Literacy Methods in Ethnic Studies, (2-2-2) Lecture, three hours. Examination and development of instructional programs, analyses, and practices of instructional methods for teaching ethnic studies in grades 7 through 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 through 12, including English Language Development Standards—all of which address needs and various interests of diverse students. Ethnic studies curriculum focuses on Chicano/a, American Indian, Asian and Pacific Islander, and LGBTQ+ communities. Students may conduct ethnographic inquiry in their local communities. May be repeated for credit. S/U grading.

321B. Ethnic Studies Curriculum Development. (3) Lecture, three hours. Examination and development of theoretical frameworks around curriculum development in grades 7 through 12, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Methods courses align with California state frameworks and California content standards for grades K through 12, including English Language Development Standards—all of which address needs and various interests of diverse students. Ethnic studies curriculum focuses on Chicano/a, American Indian, Asian and Pacific Islander, and LGBTQ+ communities. Students may conduct ethnographic inquiry in their local communities. May be repeated for credit. S/U grading.


330A. Observation and Participation. (2 to 6) Site-based fieldwork, 10 to 15 hours. Students are assigned to school sites with racially, culturally, and linguistically diverse student populations. Observation and participation period, students analyze effective strategies for achieving learning for all students, including sociocultural approaches and appropriate use of educational technology. S/U grading.

330B. Student Teaching. (4 to 6) Site-based fieldwork, 10 to 20 hours. Requisite: course 330A. Students are assigned to student teacher in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. S/U grading.

330C. Student Teaching Fieldtrip. (2) Site-based fieldwork, 10 to 30 hours. Requisite: course 330A. Students are assigned to student teacher in designated school sites with racially, culturally, and linguistically diverse student populations. Students also work in collaborative teams through Teacher Education Program to initiate change project in their local schools. S/U and/or complete case study on project. S/U grading.

330D. Classroom Residency and Teaching. (4) Site-based fieldwork, 40 hours. Students are employed by local school districts to teach as residents in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. Increased daily responsibilities. S/U grading.

360A-360B-360C. Novice Seminars. (2-2-2) Seminar, two hours. Analysis of basic principles and concepts of planning, conducting, and evaluating units of curriculum and instruction. Students explore theories and methods of instructional design and utilization of constructivist strategies and their application in elementary and secondary schools. Examination of different methods of computer literacy and teaching subject matter. Students may conduct ethno-epidemiological inquiry in local community of their designated partnership district. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel are employed as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of resident faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

390A-390B-390C. Colloquium Series: Human Development and Psychology. (1-1-1) Seminar, one hour. Emphasis on the study of human development and social, emotional, and cognitive, language, personality, and social development in educationally relevant settings such as preschools and daycare programs. Series unites scholars exploring contemporary issues in applied human development and provides framework to facilitate research and training in human development within school and UCLA community, as well as for student forums and other investigations or institutions. May be repeated for credit. S/U grading.

401. Structure and Functions of Schools as Complex Organizations. (4) Lecture, four hours. Critical analysis of schools as systems; summation about organizations, how they function, and why people in organizations behave as they do. Application to special circumstances in 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 developmental approaches to infant education; introduction to major theories in child development, developmental milestones, and recent brain development research. Topics include family engagement, inclusion, risk conditions, talent and developmental practices, and assessment. S/U or letter grading.

404. Early Childhood Curriculum Approaches. (3) Lecture, three hours. Examination and development of curriculum models and methodological approaches used in early childhood education. Grounded in social justice in early childhood education, with focus on use of developmentally appropriate practices, play- and relationship-based approaches, research on infant development, and anti-bias curricula. S/U or letter grading.

405A-405B-405C. Teaching in Urban Schools. (2–2–2) Seminar, two hours. Limited to credential program students. Learning about urban communities by critically examining students’ own beliefs, assumptions, and experiences about themselves; understanding and appreciating their organization and evaluation to provide knowledge base for developing theories of practice. On-going involvement in cooperative learning project to examine these issues both as team members and as individuals. Offered in summer only. Letter grading.

414A. Social Foundations and Cultural Diversity in American Education. (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 of practice. On-going 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 role of values, beliefs, and expectations; critical thinking; and accountability, and new technologies. Emphasis on both theory and practice.

415. Introduction to Counseling Psychology. (3) Lecture, two hours; discussion, two hours. Historical and current theories and models of counseling psychology. Survey and demonstration of instruments used in counseling and testing, and the role of the counselor in the counseling process. Letter grading.

416. Program Evaluation 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 logistical dimensions of program development. Letter grading.

417. Program Evaluation and Assessment in Student Affairs. (4) Lecture, two hours; discussion, two hours. Introductions 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, communication, and ethical issues facing students in small groups. Offered in social, educational, and campus settings.
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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 acquaint students with the objectives, selection and organization of learning experiences, and evaluation process. S/U or letter grading.


421. Administration in Higher 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.


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 curriculum and instructional procedures, with emphasis on 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; instructional design; technical and curricular components; program evaluation. S/U or letter grading.


426A-426B. Program Development and Program Evaluation in Student Affairs. (2-2) Lecture, two hours; discussion, two hours. Preparation: one course from development series. Aspects of the design and implementation of student affairs programs as well as knowledge of and skill in planning, managing, 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) or Letter (426B) grading.

431A. Administration in Higher Education. (4) Lecture, four hours. Preparation: college and university administration and introduction to policy research and analysis in postsecondary institutions. Case studies of administrative problems, policies, and practices. Management information systems, resource allocation, and issues related to responsibility, authority, and participation in administrative decisions. S/U or letter grading.


432. Seminar: Professional Topics in Higher Education. (4) Seminar, four hours. S/U or letter grading.


433B. Development of Educational Media. (4) Discussion, four hours. Current issues and trends in design of interactive educational media. Design and development of prototype educational media. Consideration of integration plans for established or experimental educational media into formal learning settings, or evaluations of specific learning environments and curricula. S/U or letter grading.

440C. Administration of Instructional Programs. (4) Lecture, four hours. Preparation: current educational programs in society and strategies of their solution through educational practice; institutional design and operation; in-service training of teaching staffs. S/U or letter grading.

441A. Instructional Supervision A. (4) Lecture, four hours. Analysis of teaching in light of research-substantiated elements of instruction: task analysis, appropriate objectives, principles that increase motivation, rate and degree of learning, retention and transfer, monitoring and adjusting instruction to meet needs and capacities of learners. S/U or letter grading.


442B. Leadership in Management and Practice. (4) Lecture, four hours. Preparation: current educational programs in society and strategies of their solution through educational practice; institutional design and operation; in-service training of teaching staffs. S/U or 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. First 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. S/U or 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.

444B. Equality of Educational Opportunity throughDesegregation and Finance Case Law. (4) Lecture, four hours. Preparation: course 442B. Comprehensive 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 School Laboratory. (4) Laboratory, four hours. Analysis of and opportunity to practice human and technical skills requisite for success as urban school leader. Topics include negotiations, conflict resolution, applications of educational 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. Preparation: one course in 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 conceptualizations of leadership and organizational theory, with application of these conceptualizations 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. S/U or 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. Letter grading.

459. Advanced Study of Health Education. (1) Lecture, four hours. Students meeting with instructors, field specialists, and team cohorts to study and analyze delivery of comprehensive support for physical, cognitive, emotional, and social well-being of students in K-12 classrooms. Topics include prevention and intervention strategies, accessing local and community resources, curriculum and instruction, and major state and federal laws related to student health and safety. Letter grading.

460. Seminar: Special Issues in Evaluation. (2 or 4) Lecture or 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.

461. Seminar: Urban Education. (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.

462. 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, gender, sexual orientation, and other identity markers. Educators develop media literacy 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 process, 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 comprehensive specialized English for English learners and debriefing of field experiences implementing adopted instructional programs for development of academic language, comprehension, and knowledge in core academic curricula. 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 practices that integrate visual and performing arts into urban classrooms. Debriefing of field experiences in subject-centered arts instruction, instruction connecting arts disciplines, and instruction connecting 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.

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. 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 in team and cluster cohorts for university-school partnership, in addition to regular seminars to debrief field experiences and continue study of curriculum, instruction, and assessment issues. Research opportunities, additional methods in content areas, and preparation of MEd portfolio included. Letter grading.

498A-498B-498C. Directed Field Experience. (2 to 8 each) Clinical, to be arranged. Field experiences designed to increase understanding of student fields of study. May be repeated for credit. S/U or letter grading.

499A-499B-499C. Advanced Directed Field Experience. (4 to 8 each) Clinical, to be arranged. May be repeated for credit. S/U or letter grading.

501. Cooperative Program in Special Education. (2 to 4) 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 practicum courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Independent Study. (1 to 12) Tutorial, to be arranged (one hour per unit). Individual study or research for graduate students. May be repeated for credit. S/U or letter grading.

597. Preparation for Master’s Comprehensive Examinations or Doctoral Qualifying Examinations. (1 to 12) Tutorial, to be arranged. Individual study for master’s comprehensive examinations or for PhD or EdD qualifying examinations. May be repeated for credit. S/U grading.


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 an understanding of inventions of importance to society, such as integrated circuits, embedded systems, photonic devices, automatic computation and control, and telecommunication devices and systems.

Students are encouraged to make use of their electrical engineering electives and a two-term capstone design course to pursue deeper knowledge within one of these areas according to their interests, whether for graduate study or preparation for employment. See the department website for examples of specializations.

### Learning Outcomes

The Electrical Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, science, and engineering
- Design of a system, component, or process to meet desired needs within realistic constraints
- Function as a productive member of a multidisciplinary team
- Effective communication
- Identification, formulation, and solution of engineering problems

### Preparation for the Major

**Required:** Chemistry and Biochemistry 20A; Computer Science 31, 32; Electrical and Computer Engineering 2, 3, 10, 11L, M16 (or Computer Science M51A); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL.

### The Major

**Required:** Electrical and Computer Engineering 101A, 102, 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/wear-
able/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 engineer-
ing 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 pur-
sue deeper knowledge within one of these ar-
ae according to their interests, whether for graduate study or preparation for employment.

Learning Outcomes
The Computer Engineering major has the fol-
owing 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, environmen-
tal, social, ethical, health, safety, security, reli-
ability, 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 Engineer-
ing M116C), M152A (or Electrical and Computer Engineering M116L), 180; Electrical and Computer Engineering 100, 102, 113, 115C; one course from Civil and Environmental Engi-
neering 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 ed-
ucation requirements, see the College and School chapters.

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

Graduate Degrees
The Department of Electrical and Computer Engineering offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Electro-

cal and Computer Engineering.

Electrical and Computer Engineering
Lower-Division Courses
1. Undergraduate Seminar. (1) Formerly numbered Electrical Engineering 1; Seminar, one hour; outside study, two hours. Introduction by faculty members and industry lecturers to electrical engineering disci-

plines through current and emerging applications of autonomous systems and vehicles, biomedical de-

vices, aerospace electronic systems, consumer prod-

ucts, data science, and entertainment products (amusement rides, etc.) as well as energy, generation, storage, and transmission. P/NP grading.

2. Physics for Electrical Engineers. (4) Formerly numbered Electrical Engineering 2.) Lecture, four hours; discussion, outside study, six hours. Requisite: Physics 1C. Introduction to con-

cepts 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 semicon-

ductors leading to operation of junction devices. Letter grading.

2H. Physics for Electrical Engineers (Honors). (4) Formerly numbered Electrical Engineering 2H.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Physics 1C. Honors course par-

allel to course 2. Letter grading.

3. Introduction to Electrical Engineering. (4) 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 explana-
tion of electrical engineering inventions such as tele-

communications, electrical grid, automatic computing and control, and enabling device technology. Re-

search frontiers of electrical engineering. Introduction to measurement and design of electrical circuits. Letter grading.

10. Circuit Theory I. (4) Formerly numbered Electrical Engineering 10.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 3 (or Computer Science 1 or Materials Science 10), Mathematics 33A, Physics 1B. Corequisites: course 11L (enforced only for Computer Science and Electrical Engineering majors), Math-


10H. Circuit Theory I (Honors). (4) Formerly numbered Electrical Engineering 10H.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 3 (or Computer Science 1 or Mate-
rials Science 10), Mathematics 33A, Physics 1B. Corequisites: course 11L (enforced only for Computer Science and Electrical Engineering majors), Mathematics 33B. Honors course parallel to course 10. Letter grading.

11L. Circuits Laboratory I. (1) Formerly numbered Electrical Engineering 11.) Lecture, one hour labora-
tory, one hour; outside study, one hour. Enforced 

corequisite: course 10. Experiments with basic cir-

uits containing resistors, capacitors, inductors, and transformers. Ohm’s law voltage and current division, 

Theven in and Norton equivalent circuits, superposition, transient and steady state analysis. Letter grading.

M16. Logic Design of Digital Systems. (4) Formerly numbered Electrical Engineering M16.) Same as Computer Science M51A.) Lecture, four hours; dis-

cussion, two hours; outside study, six hours. Intro-
duction to digital systems. Specification and imple-
mentation of combinational and sequential systems. Standard logic modules and programmable logic ar-

rays. Specification and implementation of algorithmic systems: data and control sections. Number systems and arithmetic algorithms. Error control codes for dig-

ital 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. Lim-

ited to 20 students. Designed as adjunct to lower-divi-
sion lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-

dents. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (pu-

rified 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-

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

Upper-Division Courses
100. Electrical and Electronic Circuits. (4) Formerly numbered Electrical Engineering 100.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Mathematics 33A, 33B or Mechan-
al 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 trans-

istors, small signal models, and operational ampli-
fiers. Letter grading.

101A. Engineering Electromagnetics. (4) Formerly numbered Electrical Engineering 101A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Mathematics 32A and 32B, or 33A and 33B, Physics 1C. Electromagnetic field concepts, waveguides, phasors, Maxwell’s equations, and Smith chart, transient responses, vector analysis, introduc-
tion to Maxwell equations, static and quasi-static electric and magnetic fields. Letter grading.

101B. Electromagnetic Waves. (4) Formerly num-

bered 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 propaga-
tion and interaction with media, energy flow and Poy-
rning vector, guided waves in waveguides, phase and group velocity, radiation and antennas. Letter grading.

102. Systems and Signals. (4) Formerly numbered Electrical Engineering 102.) Lecture, four hours; dis-

cussion, one hour; outside study, seven hours. Requi-
site: Mathematics 33A. Corequisite: Mathematics 33B. Elements of differential equations, first- and second-order equations, variation of parameters method and method of undetermined coefficients, ex-

istence and uniqueness. Systems: input/output de-
scription, linearity, time-invariance, and causality. Imp-

ulse response functions, superposition and convolu-

110. Circuit Theory II. (4) Formerly numbered Elec-

trical Engineering 110.) Lecture, three hours; dis-
cussion, one hour; outside study, eight hours. Enforced 

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119. Fundamentals of Embedded Networking Systems. (Formerly numbered Electrical Engineering M119.) (Same as Computer Science M119.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 2. Introduction to fundamental concepts and characterization of p-n junction and transistors. Students perform various processing tasks 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 restricted to electrical engineering and computer science students with those tools. Last offered fall 2012.

121A. Principles of Semiconductor Device Design. (Formerly numbered Electrical Engineering 121B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 2. Introduction to basic principles of operation of silicon and MOS transistors, equivalent circuits, high-frequency behavior, voltage limitations. Letter grading.

121DA-121DB. Semiconductor Processing and Device Design. (Formerly numbered Electrical Engineering 121DA-121DB.) Introduction to fundamental principles of operation of semiconductor devices. Letter grading.

121DA. Lecture, four hours; laboratory, four hours; outside study, eight hours. Enforced requisite: course 121B. Course 2 is restricted to junior/senior engineering majors. Fundamentals of solid-state, introduction to quantum mechanics and quantum statistics applied to solid-state. Crystal structure, energy levels in solids and quantum theory and semiconductor properties. Letter grading.

123B. Fundamentals of Solid-State II. (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.

128. Principles of Nanoelectronics. (Formerly numbered Electrical Engineering 128.) Lecture, four hours; discussion, four hours. Requisite: Physics 1C. Introduction to fundamentals of nanoscience for electronics nanosystems. Principles of fundamental quantities: electron charge, effective mass, Bohr magneton, and spin, as well as theoretical approaches. From these nanoscale components, discussion of basic behaviors of nanosystems to circuits and components to nanoscale electronics, including random variables and vectors, distributions and densities, moments, magnetic properties, 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. (Formerly numbered Electrical Engineering 131A.) Lecture, four hours; discussion, one hour; outside study, 10 hours. Requisites: course 102 (enforced), Mathematics 32B, 33B or 7B. Elements of probability theory, including random variables and vectors, distributions and densities, moments, characteristic functions, and
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, modems, PCs, and workstations in experiments on pulse transmission impairments, waveforms and their spectra, modem and terminal characteristics, and interfaces. Letter grading.

173DA-173DB. Photonics and Communication Design. (4–4) (Formerly numbered Electrical Engineering 173DA-173DB.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisites: courses 101A, 173DA. Finalization of design and testing of projects begun in course 173DA. Letter grading.

178. Photonics in Biomedical Applications. (4) (Formerly numbered Electrical Engineering 176.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 101A. Study of different types of optical systems and their physics backgrounds, and their roles in current and projected biomedical applications. Specific capabilities of photonics to be related to each example. Letter grading.

180DA-180DB. Systems Design. (4–4) (Formerly numbered Electrical Engineering 180DA-180DB.) Limited to senior Electrical Engineering majors. Advanced systems design integrating communications, control, and signal processing techniques. Topics include advanced topics related to projects through lecture and laboratories. Open-ended projects vary each offering. Student teams create high-performance designs that manage trade-offs among subsystem components, including cost, performance, reliability, 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. In Progress grading (credit to be given only on completion of course 183DB). Letter grading.

183DB. Design of Robotic Systems II. (4) (Formerly numbered Electrical Engineering 183DB.) Laboratory, five hours; discussion, one hour. Enforced requisites: courses M16, 110, 110C, and course 184DA-184DB. Courses center on group projects that run 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 sensing circuits and amplifier-based design, microcontroller programming, feedback control, and motor control. In Progress (184DA) and letter (184DB) grading.

184DA-184DB. Independent Group Project Design. (2–2) (Formerly numbered Electrical Engineering 184DA-184DB.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisites: courses 101A and Physics 110A. Senior-level introductory course in photonics and quantum electronics. Topics include lasers, optical communication, and biomedical applications. Recent and continuing advances in science and technology are emphasized. Concurrent with projects begun in course 180DA. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

194. Research Group Seminars: Electrical Engineering. (2 to 4) (Formerly numbered Electrical Engineering 194.) Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research groups. 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. Cullminating 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.
ratery design modules and course projects based on state-of-art embedded hardware platform. Letter grading.

205A. Matrix Analysis for Scientists and Engineers. (4) (Formerly numbered Electrical Engineering 205A.) Lecture, four hours; discussion, one hour; outside study, four 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, with an emphasis on the applications of modern science and engineering is conducted. Review of matrices taught in undergraduate courses and introduction to graduate-level topics. Letter grading.


209AS. Special Topics in Circuits and Embedded Systems. (2 to 5) (Formerly numbered Electrical Engineering 209AS.) Lecture, four hours; discussion, one hour; outside study, seven hours. Special topics in one or more aspects of circuits and embedded systems such as digital, analog, mixed-signal, and radio frequency integrated circuits (RF ICs); electronic design automation; wireless communication circuits and systems; embedded processor architectures; embedded software; distributed sensor and actuator networks; robotics; and embedded security. May be repeated for credit with topic change. S/U or letter grading.

209BS. Seminar: Circuits and Embedded Systems. (2 to 5) (Formerly numbered Electrical Engineering 209BS.) Seminar, two to four hours; outside study, four to eight hours. Seminars and discussions on current and advanced topics in one or more aspects of circuits and embedded systems such as digital, analo, 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 variables, and linear algebra. Recommended requisites: courses 205A, 241A. Mean-square error estimation and filters, least-squares estimation and 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: computer programming experience. Recommended: course 113. Fundamentals of digital image processing theory and techniques. Topics include two-dimensional linear system theory, image transforms, and enhancement. Concepts covered in lectures and computer laboratory assignments. Letter grading.


215B. Signaling and Synchronization, (4) (Formerly numbered Electrical Engineering 215E.) Lecture, four hours; outside study, eight hours. Recommended: courses 215A, M216A. Analysis and design of circuits for synchronization and communication for VLSI systems. Use of both digital and analog design techniques to improve data rate of electronics between functional blocks, chips, and systems. Advanced clocking methodologies, phase-locked loop design for clock generation, and high-performance wire-line transmitters, receivers, and timing recovery circuits. Letter grading.

M216A. Design of VLSI Circuits and Systems. (4) (Formerly numbered Electrical Engineering M216A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended: courses 215A, M216A. Design and analysis of circuits for VLSI systems. Advanced techniques used 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.

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.

M216C. LSI in Computer System Design. (4) (Formerly numbered Electrical Engineering M216C.) Lecture, four hours; discussion, one hour; outside study, four hours. Preparation: course M216A. LSI/VLSI design and architecture in computer systems. Depth studies of VLSI architectures and VLSI design tools. Letter grading.

M217. Biomedical Imaging. (4) (Formerly numbered Electrical Engineering M217.) (Same as Bioengineering M217.) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended: course 114 or 211A. Optical imaging modalities in biomedical. Other nonoptical imaging modalities discussed briefly for comparison purposes. Letter grading.

218. Network Economics and Game Theory. (4) (Formerly numbered Electrical Engineering 218C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: courses 218A, M216A. Analysis and design of VLSI systems. Advanced techniques used 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.

219. Advanced Topics in Speech Processing. (4) (Formerly numbered Electrical Engineering 219.) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: course 212A. Advanced techniques used in various speech-processing applications, with focus on speech production by humans and machine. Physical mechanisms of speech production 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.

219B. Analog Integrated Circuit Design. (4) (Formerly numbered Electrical Engineering 219B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: course 211B. Analysis and design of circuits, MOS and bipolar device structures and models, single-stage and differential amplifiers, noise, feedback, operational amplifiers, offset and distortion, sampling devices and discrete-time circuits, bandgap references. Letter grading.


215C. Analysis and Design of RF Circuits and Systems. (4) (Formerly numbered Electrical Engineering 215C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: course 215A. 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.


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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 model selection, deep learning, and Bayesian graphical models. Emphasis on techniques to evaluate relative performance of different methods and their applicability. Includes computer projects that exploit cloud data analytics 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 traps. Recombination and diffusion, recombination, and polysilicon. 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. Barriers, barrier mixer diodes, IMPATT diodes, transferred electron devices, tunnel diodes, microwave transistors. Letter grading.

222. Integrated Circuits Fabrication Processes. (4) (Formerly numbered Electrical Engineering 222C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 131A. Concepts and practical techniques for integrated circuit design. Technologies, limitations of integrated circuits design. Topics include bulk crystal and epitaxial growth, thermal oxidation, diffusion, ion-implantation, chemical vapor deposition, dry etching, lithography, and metallization. Introduction to advanced process simulation tools. Letter grading.

223. Solid-State Electronics I. (4) (Formerly numbered Electrical Engineering 223.) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended requisite: course 270. Energy band theory, electronic band structure of various elementary, compound, and alloy semiconductors, defects in semiconductors, Reiss papers, quantum mechanics, 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. Electrical properties. Letter grading.

225. Physics of Semiconductor Nanostructures and Devices. (4) (Formerly numbered Electrical Engineering 225.) Lecture, four hours; outside study, eight hours. Requisites: course 223, 224. Current research areas, such as radiation effects in semiconductor devices, diffusion in semiconductors, optical and microwave properties, non-linear optics, spin and light 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 topic and on research topic in their dissertation area. May be repeated for credit. S/U grading.

230A. Detection and Estimation in Communication. (4) (Formerly numbered Electrical Engineering 230A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Applications of estimation and detection concepts in communication and signal processing; random signal and noise characterizations by analysis and simulation; mean square (MS) and maximum likelihood (ML) estimations and algorithms; detection under ML, Bayes, and Neyman/Pearson (NP) criteria; signal-to-noise ratio (SNR) and error probability evaluations. Introduction to Monte Carlo simulations. Letter grading.


230C. Signal Processing in Communications. (4) (Formerly numbered Electrical Engineering 230C.) Lecture, four hours; outside study, eight hours. Requisites: courses 131A, 230A. Concepts and implementations of signal processing in communication and signal processing systems. Spectral analysis using Fourier transform and windowing, parametric modeling through AR and ARMA models, and speech processing. Wavelet transform, sub-band processing. Array processing using beamforming for SNR enhancement, smart antenna, and source separation and localization. Introduction to compressive sampling and applications. Letter grading.

230D. Algorithms and Processing in Communication Systems. (4) (Formerly numbered Electrical Engineering 230D.) Lecture, four hours; outside study, eight hours. Requisites: courses 131A, 230A. Analysis, design, and implementation of signal processing systems. Spectral analysis using Fourier transform and windowing, parametric modeling through AR and ARMA models, and speech processing. Wavelet transform, sub-band processing. Array processing using beamforming for SNR enhancement, smart antenna, and source separation and localization. Introduction to compressive sampling and 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 machine learning and signal processing, channel capacity, rate versus distortion in lossy compression, and basics of information theory for networks. Letter grading.

231B. Network Information Theory. (4) (Formerly numbered Electrical Engineering 231B.) Lecture, four hours; outside study, eight hours. Requisite: course 231A. Advanced topics in network information theory. 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 process management, queueing theory, and continuous-time Markov chain processes. Renewal processes, regenerative processes, Markov-renewal, semi-Markov and semi-Markovian stochastic processes, and their applications to traffic and queueing analysis of basic telecommunication and computer communication networks, Internet, and management systems. Letter grading.

232B. Telecommunication Switching and Queueing Systems. (4) (Formerly numbered Electrical Engineering 232B.) Lecture, four hours; outside study, eight hours. Requisite: course 131A. Modeling, analysis, and design of queuing systems with applications to switching systems, computer networks, wireless, wired and wireless networks, and business and management systems. Modeling, analysis, and design of Markovian and non-Markovian queueing systems and priority service systems and networks with applications to computer communications, Internet, and management networks. Letter grading.

232D. Communications Networking and Traffic Management for Autonomous Mobile Systems. (4) (Formerly numbered Electrical Engineering 232D.) Lecture, four hours; outside study, eight hours. Requisite: course 131A or equivalent. Analysis, design, and traffic management of autonomous mobile systems. Telecommunication networks, mobile wireless networks, and mobile-access communication systems. Networking architectures, multiple-access communication systems, and protocols. Future networks and communication architectures, and implementation for radio transport. Letter grading.

233A. Discrete-Event System Theory. (4) (Formerly numbered Electrical Engineering 233A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 131A, 230A. Concepts and implementations of signal processing in communication and signal processing systems. Spectral analysis using Fourier transform and windowing, parametric modeling through AR and ARMA models, and speech processing. Wavelet transform, sub-band processing. Array processing using beamforming for SNR enhancement, smart antenna, and source separation and localization. Introduction to compressive sampling and applications. Letter grading.

233B. Network Information Theory. (4) (Formerly numbered Electrical Engineering 233B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 131A, 230A. Concepts and implementations of signal processing in communication and signal processing systems. Spectral analysis using Fourier transform and windowing, parametric modeling through AR and ARMA models, and speech processing. Wavelet transform, sub-band processing. Array processing using beamforming for SNR enhancement, smart antenna, and source separation and localization. Introduction to compressive sampling and applications. Letter grading.

233C. Wireless Communications System Design, Modeling, and Implementation. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Covers algorithms, architectures, and implementations for radio receivers, physical, and network layer functionalities. Topics include wireless channel modeling, single-carrier and multi-carrier systems, multiple antenna systems, and impairments such as propagation models, architectural and circuits design trade-offs, wireless spectrum sensing, wideband signal processing, cognitive radio, massive multiple-input, multiple-output (MIMO) systems, radio over fiber, and 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 theorems in network coding, combinatorial approach and alphabet size, linear programming approach and
throughput benchmarking, network code design algorithms, secure network coding, network coding for wireless, other applications. Letter grading.


M237. Dynamic Programming. (Formerly numbered Electrical Engineering 237.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 237A. Key concepts, principles, and algorithms of online learning and learning how to make decisions under uncertainty. Advanced topics including Markov decision processes, combinatorial optimization, communications. Letter grading.

238. Multimedia Communications and Processing. (Formerly numbered Electrical Engineering 238.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 237A. Key concepts, principles, and algorithms of online learning and learning how to make decisions under uncertainty. Advanced topics including Markov decision processes, combinatorial optimization, communications. Letter grading.

239A. Special Topics in Signals and Systems. (Formerly numbered Electrical Engineering 239A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 237A. Key concepts, principles, and algorithms of online learning and learning how to make decisions under uncertainty. Advanced topics including Markov decision processes, combinatorial optimization, communications. Letter grading.

M250A. Microelectromechanical Systems (MEMS) Fabrication. (Formerly numbered Electrical Engineering 250A.) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisite: course 230A. Advanced discussion of micromachining processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in the fabrication of MEMS. Topics include materials issues such as chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

M252. Microelectromechanical Systems (MEMS) Device Physics and Design. (Formerly numbered Electrical Engineering 252.) Lecture, four hours; discussion, one hour; outside study, eight hours. Introduction to MEMS design. Design methods, design rules, sensing and actuating mechanisms, microsensors, and microactuators. Designing MEMS to be produced with both ferro- and non-ferroelectric materials. Computer-aided design for MEMS. Design project required. Letter grading.

M255. Neuroengineering. (Formerly numbered Electrical Engineering 255.) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisites: Mathematics 32A, Physics 1B or 5C, Introduction to principles and technologies of bioelectricity and neural signal recording, processing, and stimulation. Topics include bioelectricity, electrophysiology (action potentials, local field potentials, EEG, ECOG), intracellular and extracellular recording, mechanisms of sensory communication processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulation artifact removal), brain-computer interfaces, deep-brain stimulation, and prosthetics. Letter grade. Letter grading.

M256A-M256B-M256C. Evaluation of Research Literature in Neuroengineering. (2–2–2) (Formerly numbered Electrical Engineering M256A-M256B-M256C.) Letter, four hours; outside study, eight hours. Discussion, two hours; outside study, four hours. Critical discussion and analysis of current literature related to neuroengineering research. S/U grading.


261. Microwave and Millimeter Wave Circuits. (4) (Formerly numbered Electrical Engineering 261.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 163A. Rectangular and circular waveguides, microstrip, stripline, finline, and dielectric waveguide distributed circuits, with applications to microwave and millimeter wave integrated circuits. Substrate materials, surface wave phenomena. Analytical methods for discontinuity effects. Design of passive microwave and millimeter wave circuit components. 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 differential and integral equations. Finite difference, finite element method, method of moments. Applications include transmission lines, 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, and differential equations. Principles of quantum mechanics for applications in lasers, solid-state physics, and nonlinear optics. Topics include eigenfunction expansions, observables, uncertainty principle, and methods of solution. Application to experiments in inhomogeneous and bounded systems, solid-state and nanotechnology. May be repeated for credit with topic change and consent of department. Letter grading.

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 research in energy harvest, storage, and conservation. S/U grading.

279BS. Seminar: Physical and Wave Electronics. (2 to 4) (Formerly numbered Electrical Engineering 279BS.) Seminar, two to four hours; outside study, four hours. Topics include classical formalism, quantum mechanics, 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 consent of department. Letter grading.

279AS. Seminar: Special Topics in Physical and Wave Electronics. (1) (Formerly numbered Electrical Engineering 279AS.) Lecture, four hours; discussion, one hour; outside study, seven hours. Special topics in one or more aspects of physical and wave electronics, such as electromagnetic, 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 consent of department. S/U or letter grading.

279B. Seminar: Physical and Wave Electronics. (2 to 4) (Formerly numbered Electrical Engineering 279B.) Seminar, two to four hours; outside study, four hours. Topics include classical formalism, quantum mechanics, 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 consent of department. Letter grading.

CM282. Science, Technology, and Public Policy. (4) (Formerly numbered Electrical Engineering 282.) (Same as Public Policy CM282) Lecture, three hours. Recent and continuing advances in science and technology are raising profoundly important public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects. Concurrently scheduled with course CM182. S/U grading.

285A. Plasma Waves and Instabilities. (4) (Formerly numbered Electrical Engineering 285A.) Lecture, four hours; outside study, eight hours. Requisites: courses 106 and M185 or Physics M122. Wave phenomena in plasmas described by macroscopic fluid equations. Microwave propagation, plasma oscillations, ion acoustic waves, cyclotron waves, hydromagnetic waves, drift waves. Rayleigh/Taylor waves, surface waves, and streaming instabilities. Application to experiments in fully and partially ionized gases. Letter grading.


M293. Intellectual Property for Technology Entrepreneurs 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 portfolios, patent licensing, offensive and defensive IP litigation considerations, trade secrets, opportunities and pitfalls associated with open source software, 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.

295. Academic Technical Writing for Electrical Engineers. (3) (Formerly numbered Electrical Engineering 295.) Seminar, three hours. Designed for electrical engineering PhD students who have completed preliminary examinations. Students read models of good writing and learn to make rhetorical observations and writing decisions, improve their academic and technical writing, and develop strong communication skills and strategies useful to professional workplace. Writing assignments require conference and journal papers, and practice writing forums and speaking to various audiences, including potential students, engineers outside their specific fields, and nongengineers (colleagues outside field, policymakers, etc.). Students write in variety of genres, all related to their professional development as electrical engineers. Emphasis on writing for professional workplace—written communication skills and professional information in distinct contexts, directly resulting in specific outcomes. S/U grading.

296. Seminar: Research Topics in Electrical Engineering. (2) (Formerly numbered Electrical Engineering 296.) Seminar, two hours; outside study, four hours. Advanced study and analysis of current topics in electrical engineering. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

297. Seminar Series: Electrical Engineering. (1) (Formerly numbered Electrical Engineering 297.) Seminars, 90 minutes; outside study, 90 minutes. Limited to graduate electrical engineering students. Weekly seminars and discussion by invited speakers on research topics of heightened interest. S/U grading.

298. Seminar: Engineering. (2 to 4) (Formerly numbered Electrical Engineering 298.) Seminar, to be arranged. Limited to graduate electrical engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. S/U or letter grading.

299. MS Project Seminar. (4) (Formerly numbered Electrical Engineering 299.) Seminar, to be arranged. Recommended for all MS students. Limited to graduate electrical engineering students. Weekly seminars and discussion by invited speakers on research topics of heightened interest. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered Electrical Engineering 375.) Seminar, to be arranged. May be repeated for credit. S/U or letter grading.

376. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered Electrical Engineering 376.) Seminar, to be arranged. May be repeated for credit. S/U or letter grading.

M495. Teaching Preparation Seminar: Teaching and Writing Pedagogies for Electrical Engineers. (2) (Formerly numbered Electrical Engineering M495.) (Same as Engineering Education M495.) Seminar, two hours. Limited to graduate electrical engineering stu-
patients. Required of all departmental teaching assistants (TAs). May be taken concurrently while holding a TA appointment. Seminar on pedagogy and logistics of being a TA with emphasis on student-centered teaching, clear communication, and multimodal teaching and learning. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) (Formerly numbered Electrical Engineering 596.) Tutorial, to be arranged. Limited to graduate electrical engineering students. 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) (Formerly numbered Electrical Engineering 597A) Tutorial, to be arranged. Limited to graduate electrical engineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) (Formerly numbered Electrical Engineering 597B) Tutorial, to be arranged. Limited to graduate electrical engineering students. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) (Formerly numbered Electrical Engineering 597C) Tutorial, to be arranged. Limited to graduate electrical engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 12) (Formerly numbered Electrical Engineering 598) Tutorial, to be arranged. Limited to graduate electrical engineering students. Supervised independent research for MS candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) (Formerly numbered Electrical Engineering 599) Tutorial, to be arranged. Limited to graduate electrical engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

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 SCHOOLWIDE PROGRAMS

Henry Samueli School of Engineering and Applied Science

6426 Boelter Hall
Box 951601
Los Angeles, CA 90095-1601

Engineering Schoolwide Programs
310-825-9580

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. (5) Lecture, four hours; outside study, eight hours. How macroscopic patterns emerge dynamically from local interactions of large number of interdependent (often heterogeneous) entities, without global design or central control. How 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 chemical reactions. Complexity also deals with how such systems undergo sudden changes, including catastrophic breakdowns, in absence of external force or central influence. Key aspect of biological and social collectives is their nature as complex adaptive systems, where individual agents group in the same way as to their external conditions. In biological and social systems, complexity science goes beyond traditional mathematics and statistics in its use of multiagent systems, complexity science goes beyond traditional mathematics and statistics and statistical science. Systems approaches focus on fundamental computer programming principles, methodologies, and techniques. Basic concepts of programming and C programming language. Offered in summer only. P/NP grading.

20. First-Year Engineering Transition Bridge. (2) Seminar, three 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. Advanced preparation and early exposure to Fall Quarter mathematics, chemistry, and computer science curricula. Collaborative learning techniques and community-building activities are integral 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, three hours. Designed primarily for new students, usually taken during the summer. Designed to provide an intensive experience in computer science, focusing on fundamental computer programming principles, methodologies, and techniques. Basic concepts of programming and C programming language. Offered in summer only. P/NP grading.

87. Introduction to Engineering Disciplines. (4) Lecture, four hours; discussion, four hours; outside study, four hours. Introduction to the profession of engineering as a professional opportunity for freshman students by exploring difference between engineering disciplines and functions engineers perform. Development of fundamental skills and techniques for academic excellence through the course of the first year. 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.

95. Internship Studies in Engineering. (1) Seminar, 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 members. Seminar required. P/NP grading.

96A. Introduction to Engineering Design. (2) (Formerly numbered 96A) 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. Pre-requisites: 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-
nanoparticles, quantum wires, quantum wells and various nanostructures such as quantum dots, explained using basic concepts from physics.

96C. Introduction to Engineering Design: Internet of Things. (2) Lecture, one hour; laboratory, one hour; outside study, four hours. Enforced requisites: Chemistry 20A, Computer Science 55A, or Computer Science 55B, four hours; discussion, one hour; outside study, seven hours. Fundamental principles of micro-level (individual, firm, and industry), macro-level (nationally and international) economics as they relate to technology management. How individuals, firms, and governments impact successful commercialization of high technology products and services. Examination of key ethical issues that emerge as result in areas such as biotechnology, information and nanotechnology, and energy technology. Discussion of nature of these issues and potential ethical issues, and what society values in relation to these issues. Exploration of philosophy, religion, and natural and social sciences in relation to these issues. Emphasis on rethinking models and concepts from the traditional, legal, and ethical frameworks.

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 are expected to write academic standards 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

M101. Principles of Nanoscience and Nanotechnology. (4) (Same as Materials Science M105.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, Physics 1C. Introduction to underlying science encompassing structure, properties, and fabrication of technology from 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 electrical properties of nanomaterials, nanostructures, assembly, templated assembly and applications of various nanostructures such as quantum dots, nanoparticles, quantum wires, quantum wells and multilayers, carbon nanotubes. Letter grading.

102. Synthetic Biosystems and Nanosystems Design. (4) Lecture, four hours; outside study, eight hours. Requisites: course M101, Life Sciences 3. Introduction to research in engineering to integrate biosciences and nanosciences into synthetic systems, where biological components are reengineered and rewired to perform desirable functions in both intraorganellar and cell-free environments. Discussion of basic technologies and systems analysis that deal with dynamic behavior, noise, and uncertainties. Design project in which students are challenged to design new bio-inspired or biodegradable systems for non-trivial task required. Letter grading.

M103. Environmental Nanotechnology: Implications and Applications. (4) (Same as Civil Engineering M166.) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisites: course M101. Introduction to potential implications of nanotechnology to environmental systems as well as potential application of nanotechnology to environmental concerns. Technical contents include three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, reactivity, and toxicity of nanoscale materials in natural environmental systems, and (3) use of nanotechnology for energy and water production, plus environmental protection, monitoring, and remediation. Letter grading.

110. Introduction to Technology Management and Economics for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Fundamental principles of micro-level (individual, firm, and industry), macro-level (nationally and international) economics as they relate to technology management. How individuals, firms, and governments impact successful commercialization of high technology products and services. Examination of key ethical issues that emerge as result in areas such as biotechnology, information and nanotechnology, and energy technology. Discussion of nature of these issues and potential ethical issues, and what society values in relation to these issues. Exploration of philosophy, religion, and natural and social sciences in relation to these issues. Emphasis on rethinking models and concepts from the traditional, legal, and ethical frameworks.

112. Laboratory to Market, Entrepreneurship for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Critical components of the entrepreneurial process, human resources, and accounting disciplines as they impact management of technology commercialization. Topics include intellectual property management, business modeling, marketing, and entrepreneurial finance. Students work in small teams studying technology management plans to bring new technologies to market. Students select from set of available technology concepts, many generated at UCLA, that are in need of plans for movement from laboratory to market. Letter grading.

113. Product Strategy. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Management as well as engineering decisions nearly always take place in environment characterized by uncertainty. Probability provides mathematical framework for understanding how to make rational decisions when outcomes of actions are uncertain. Application of probability to problem of reasoning from sample data, encompassing estimation, hypothesis testing, and regression analysis. Discussion of specific analytical techniques and laboratory grade computer software. Development of basic understanding of statistical analysis. Letter grading.

116. Statistics for Management Decisions. (4) Lecture, four hours; outside study, eight hours. Management as well as engineering decisions nearly always take place in environment characterized by uncertainty. Probability provides mathematical framework for understanding how to make rational decisions when outcomes of actions are uncertain. Application of probability to problem of reasoning from sample data, encompassing estimation, hypothesis testing, and regression analysis. Discussion of specific analytical techniques and laboratory grade computer software. Development of basic understanding of statistical analysis. Letter grading.

120. Entrepreneurship for Scientists and Engineers. (4) Lecture, one hour; outside study, eight hours. Designed for seniors and graduate students. Identification of business opportunities and outline of basic requisites for viable business plans, followed by specific topics related to security, legal and other resources needed to execute those plans. P/NP grading.

180. Engineering of Complex Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended for junior/senior engineering majors. Holistic view of engineering discipline, covering life cycle of engineering, processes, and techniques used in industry today. Multidisciplinary systems engineering is integrated with aspects of electrical, mechanical, material, and software engineering are incorporated. Three specific case studies in commu-
Graduate Courses

200. Program Management Principles for Engineers and Professionals. (4) Lecture; four hours; outside study, eight hours. Prerequisite: course 108. Focus on project management activities. Presentations from various industries and disciplines. 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 and practice—how to apply concepts in a real-world context. Letter grading.

212. Intellectual Property Law and Strategy. (4) Lecture; four hours; outside study, eight hours. Prior knowledge of legal courses is not required. Intellectual property law is not just topic for lawyers. Engineering students are required to understand how to manage intellectual property rights. Letter grading.

213. Data and Business Analytics. (4) Lecture, four hours; outside study, eight hours. Focus on data science and business analytics. Topics in starting and developing high-tech enterprises and intended for graduate engineering students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students. Topics in starting and developing high-tech enterprises and intended for graduate students...
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Scope and Objectives
The Department of English is dedicated to the study of the literatures and cultures of those parts of the world in which English is a primary language. Although committed to no single method or approach, the department requires a knowledge of British, American, and Anglophone literary history and an engagement with a range of methodological approaches that foster intellectual curiosity and critical thinking and encourage its students to be not only expert readers and writers but engaged and ethical citizens.
An understanding and appreciation of literature can furnish lifelong rewards. In addition to offering students such personal benefits, the department seeks to foster critical analysis and lucid writing and to teach them to think about how language and representation function in the world. Such skills are essential to success in a variety of professions for which the major in English can provide excellent preparation, including law, administration, business, teaching, media, and entertainment.
Within the BA degree in English, qualified students may elect a concentration in creative writing. The department also offers a Bachelor of Arts degree in American Literature and Culture.
When selecting courses to fulfill requirements for the majors, students are expected to choose those that best reflect their own interests and simultaneously contribute toward a coherent program in literary studies. A graduate program leading to the Master of Arts degree is available for students who wish to continue the study of literature at an advanced level. A parallel program continues to the PhD degree. Because the PhD program may require five years or more, it is intended only for qualified students who are seriously committed to advanced literary scholarship and, in some cases, to a career in college or university teaching.

**Undergraduate Study**

Students must have completed the Entry-Level Writing requirement before taking any courses in English (other than English Composition 1 or 2). For more information regarding Entry-Level Writing, see the Undergraduate Study chapter. The English major and American Literature and Culture major are designated capstone majors. Students in both majors have the option of completing a capstone seminar or other culminating work that enables them to use knowledge and skills acquired through previous coursework to engage, under the guidance of a faculty member, in literary research or other creative projects that result in a final paper or other product.

**Extra-Departmental Requirement in Foreign Literature or Foreign Language**

All English majors must have completed either (1) level five or equivalent in any one foreign language or (2) level three or equivalent in one foreign language and two additional courses in foreign language or foreign literature, including foreign literature in translation (see course listings under Foreign Literature in Translation). Transfer students who have satisfied the College of Letters and Science foreign language or foreign literature, including foreign literature in translation (see course listings under Foreign Literature in Translation) may be designated as 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.

**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, 133, 155, 163C, 165B, 166C, or indicated sections of 119, 139, 149, 159, 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) genres and 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 in or in more than two workshops with the same instructor. No student may take for credit more than three workshops or multiple 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 under-graduate 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, Chicana and Chicano Studies M144, M183, Honors Collegium 141, 174, Italian 124, Public Policy C115, Russian 122, Urban Planning 120, or 121, (3) one course selected from Atmospheric and Oceanic Sciences 141, Earth, Planetary, and Space Sciences 101, Ecology and Evolutionary Biology 116, M131, 154, 176, Environment M109, M111, M130, M132, M133, 134, M137, 150, M153, 157, 159, M161, 163, M164, 166, M167, or Environmental Health Sciences 100, (4) one course selected from English 184, 185E, 197, 198A, 198B, or 199 that culminates in a project focused primarily on literature from an ecocritical or other environmentally focused perspective.

Students may petition to substitute an internship course/independent study/directed research course (195CE, 197, 198, or 199) for an elective course as long as it is clearly and predominantly relevant to the topics covered in the minor and falls within the discipline of the requirement for which it serves as a substitute. No more than one upper-division independent study/directed research course (4 or 5 units) may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. 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, critical 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, Chicana and Chicano Studies M144, M183, Honors Collegium 141, 174, Italian 124, Public Policy C115, Russian 122, Urban Planning 120, or 121, (3) one course selected from Atmospheric and Oceanic Sciences 141, Earth, Planetary, and Space Sciences 101, Ecology and Evolutionary Biology 116, M131, 154, 176, Environment M109, M111, M130, M132, M133, 134, M137, 150, M153, 157, 159, M161, 163, M164, 166, M167, or Environmental Health Sciences 100, (4) one course selected from English 184, 185E, 197, 198A, 198B, or 199 that culminates in a project focused primarily on literature from an ecocritical or other environmentally focused perspective.

Students may petition to substitute an internship course/independent study/directed research course (195CE, 197, 198, or 199) for an elective course as long as it is clearly and predominantly relevant to the topics covered in the minor and falls within the discipline of the requirement for which it serves as a substitute. No more than one upper-division independent study/directed research course (4 or 5 units) may be applied toward the minor.

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

English

Lower-Division Courses

4HW. Critical Reading and Writing (Honors). (9) 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 pages (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 and discussion, one hour. Enforced requisite: English Composition 3 or 3H, English 4W or 4HW, 10A. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three pages (three to five pages each) or equivalent required. P/NP or letter grading.

10B. Literatures in English, 1700 to 1850. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW, 10A. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three pages (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 pages (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 the medieval (in form, crusades, queerness, romance, world-construction, etc.) is continually reproduced and transformed in large scale popular productions, novels, film, and television. Textual focus on medieval works in comparison to analysis of 20th- and 21st-century works may include Beowulf, Sir Gawain and the Green Knight, Le Morte Darthur, Lord of the Rings, Game of Thrones, and Harry Potter. P/NP or letter grading.

140 series. Introduction to medieval texts juxtaposed with modern texts and media to analyze how and why the medieval (in form, crusades, queerness, romance, world-construction, etc.) is continually reproduced and transformed in large scale popular productions, novels, film, and television. Textual focus on medieval works in comparison to analysis of 20th- and 21st-century works may include Beowulf, Sir Gawain and the Green Knight, Le Morte Darthur, Lord of the Rings, Game of Thrones, and Harry Potter. P/NP or letter grading.

17. Topics in American Cultures. (5) Seminar, three hours. Requisites: English Composition 3, English 4W or 4HW or 4WS, 11. Content varies. Introductory study of diverse perspectives, and ideas of America. P/NP or letter grading.

88A–88Z. Lower Division Seminars: Special Topics in English. (Same as 20W) Seminar, three hours. Limited to 15 students. Content varies; see departmental counselor for information. P/NP or letter grading.

88HC. Honors Contracts. (1) Offered when enrolled. 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 assignments designed by the instructor to extend students’ study of a topic covered in the lower-division course. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

91A. Introduction to Poetry. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Recommended for instructional credential candidates. Study of critical issues (metrics, diction, figurative language, symbolism, irony and ambiguity, form and structure) and
109. Topics in Race, Ethnicity, Gender, and Sexual- ity Studies. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of topics related to race, ethnicity, gender, and sexuality. May include critical examination of race, ethnicity, gender, and sexuality in historical, national, regional, comparative, or thematic perspectives. May be repeated for credit with topic or instructor change. P/NP or letter grading.

110A. Writing in English Major: Analytical. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 4W (or 4HW), 10A, 10B, 10C, English Composition 3. Open only to English majors; credit 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 writing required. May not be repeated for credit. P/NP or letter grading.

110B. Writing in English Major: Adjunct. (2) Seminar, two hours. Students must be concurrently enrolled in affiliated English lecture course (consult Schedule of Classes for courses designated). Improvement and refinement of writing about literature. Brings together students enrolled in base American Literature and Culture or English courses in workshop setting. Topics of general, discipline-specific writers, skills, especially of art developing literary critical analyses 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; discussion, one hour (when scheduled). Enforced requisite: courses 4W (or 4HW), 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 mate- rials completed in previous English courses and de- velop 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 letter grading.

110T. Writing in English Major: Transfer Students. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 4W (or 4HW), 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. Tracing of Bible from ancient texts as well as interpretive traditions of the ancient Hebrew Bible and its interpretation through the ages. May be repeated for credit with topic or instructor change. P/NP or letter grading.

111B. Christian Biblical Texts in Translation. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Literary study of canonical New Testament and other Christian texts (deuterocanonical, apocryphal, gnostic, etc.), with emphasis on literary devices and narrative structures in relation to 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). En- forced requisite: English Composition 3 or 3H. Re- commended: 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 litera- tures in English. May be repeated for credit with topic or instructor change. P/NP or letter grading.

112A. Oral Tradition. (5) Lecture; four hours; dis- cussion, 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; dis- cussion, one hour (when scheduled). Enforced requis- ite: English Composition 3 or 3H. Survey of early tex- tual materials pertaining to Irish peoples and their stories, with emphasis on techniques of mythological analysis. P/NP or letter grading.

112C. Survey of Medieval Celtic Literature. (5) Lec- ture, four hours; discussion, one hour (when sched- uled). 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; dis- cussion, one hour (when scheduled). Enforced requis- ite: English Composition 3 or 3H. Folkloric traditions of modern Ireland, Scotland, and other Celtic coun- tries, with attention to colonial and postcolonial issues and folkloristic methods of research. 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 lin- guistic description as applied to pronunciation, grammar, and vocabulary of modern English. P/NP or letter grading.

114. Lyric Histories. (5) Lecture, four hours; dis- cussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of lyric poe- try in English across centuries. Topics may include musical revolution of the Baroque, emerging con- cepts of dramatic personae, matter of literary influ- ence, 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). En- forced requisite: English Composition 3 or 3H. Examination of such popular styles as sentimen- tal literature, sensation fiction, dime novels, crime stories, pornography, science fiction, supernatural tales, Hollywood novels, and other kinds of mass lit- erary expression. P/NP or letter grading.

115B. British Popular Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). En- forced requisite: English Composition 3 or 3H. Read- ings in literature of British masses, from 16th-century broadsides to contemporary novels. Examination of social and cultural aspects of literature. P/NP or letter grading.

115C. Literature for Children and Adolescents. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of historical backgrounds and develop- ment of types of children’s literature, folklore and oral tradition, criticism, illustration, and bibliography
and/or analysis and evaluation of literature intended mainly for students in junior and senior high schools. P/NP or letter grading.

115D. Detective Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of British and American detective fiction and literature of detection. P/NP or letter grading.

115E. Science Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of science fiction and speculative literatures. P/NP or letter grading.

M115SL. Community-Based Studies of Popular Literature. (5) (Same as Civic Engagement M110SL.) Lecture, two hours; fieldwork, two hours. Enforced requisite: English Composition 3. Service-learning course that examines history and development of one or more genres. 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 requisite: English Composition 3 or 3H. Study of novels and short stories of the 20th century and later, including experimental, multiform narratives. May be repeated for credit with topic or instructor change. P/NP or letter grading.

116B. Introduction to Electronic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Overview of literatures involving digital technology, such as hypertext fiction, interactive fiction, 3D animation 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 exploration, settlement, and conflict to present. Emphasis on work of writers and cultural awareness of Western U.S. P/NP or letter grading.

118A. Interdisciplinary Studies in Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literatures in English in relation to other disciplines such as sciences, history, politics, philosophy, music, photography, visual studies, psychology. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118B. Literature and Other Arts. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Investigation of the relationship of literature to 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 not only English literature but foreign literature in translation. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118C. Studies in Visual Culture. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of visual images (photography, film, video) and their relation to literary and/or popular culture. Topics include advertisement, word as image, image and culture, film and visual culture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118E. Literature and Environment. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Study of literature from environmental perspectives, including eco-critical and interdisciplinary consideration of issues such as environmental justice, animal studies, food studies, gender studies, urban and postcolonial ecologies, climate change, cultural biophelia and biophobia, and relationship of literature to sciences. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M118F. Food Cultures and Food Politics. (5) (Same as Food Studies M132 and Society and Genetics M122.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Introduction to interdisciplinary field of food studies, with focus on how literature, art, science writing, and visual culture address political dimensions of food, agriculture in specific contexts. P/NP or letter grading.

119. Literary Cities. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of place of literary imagination in making of cities, with focus on questions of cultural exchange, development, migration, urban rebellion, and style. Topics may include meaning of urban space as an archipelago 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 topic or instructor change. P/NP or letter grading.

119SL. Literary Cities—Service Learning. (5) Lecture, four hours; discussion, one hour (when scheduled); fieldwork, two hours. Enforced requisite: English Composition 3 or 3H. Exploration of place of literary imagination in making of cities, with focus on questions of cultural exchange, development, migration, urban rebellion, and style. Topics may include meaning of urban space as an archipelago or cosmopolitan hub, segregated dystopia or postmodern future, and impact of exile, tourism, and migration in making of cities. Service 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.

120. History of Aesthetics and Critical Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. An introduction to the history of aesthetics, critical theory, and interpretation. Topics may include Marx, psychoanalysis, structuralism, poststructuralism, feminism, and postcolonialism. May not 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 requisite: courses 10A, 10B. Investigation of and critical theorization of dominant concepts and key terms in current theory across all disciplines. May be repeated for credit with different terms. P/NP or letter grading.

124. Theories of Religion. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Recommended: courses 120, 121. Exploration of relationship between literary and religious practices and traditions. Topics may include legacies of monotheisms, theories of sacrifice, sacrament, gift, and mystical traditions, as well as history of allegory and theological approaches to reading. Selected topics may address literary applications of religious categories as treated in cultural anthropology, philosophy, and critical theory. May be repeated for credit with topic or instructor change. P/NP or letter grading.

125. Violence in Cultural Theory and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Recommended: courses 120, 121. Examination of literary, philosophical, religious, and/or psychological 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). Enforced requisite: English Composition 3. Recommended: one course from 10A, 10B, 10C. Enforced requisite: English Composition 3. Recommended: courses 120, 121. Examination of identities, theories of subaltern, orientalist, feminist, and/or queer theories. May be repeated for credit with different terms. P/NP or letter grading.

127. Performance, Media, and Cultural Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Recommended: courses 120, 121. Exploration of methodologies, aesthetic, and theoretical implications of postcolonial and transnational approaches to study of literature and culture. Topics may include theories of subaltern, orientalist, feminist, and/or indigenous representation and histories and may address representational issues of national sovereignty in wake of globalization and neocolonialism. May be repeated for credit with topic or instructor change. P/NP or letter grading.

129. Topics in Genre Studies, Interdisciplinary Studies, and Critical Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Recommended: courses 130, 131. Exploration of methodologies, aesthetic, and theoretical implications of postcolonial and transnational approaches to study of literature and culture. Topics may include theories of subaltern, orientalist, feminist, and/or indigenous representation and histories and may address representational issues of national sovereignty in wake of globalization and neocolonialism. May be repeated for credit with topic or instructor change. P/NP or letter grading.
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 Anglphone writers from Africa, Caribbean, South Asia, and indigenous Pacific. May not be repeated for credit. P/NP or letter grading.

131. Studies in Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Strongly recommended course 130. Colonialism 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 empire is, how it functions, and how it shapes power and knowledge. Discussion of shifting patterns and paradigms of imperial rule, including ways metropolitan and peripheral or colonial spaces were transformed. Emphasis may be on particular period or 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. Transatlantic, Atlantic. To examine cultural, political, and ideological issues that followed from transatlantic movement of people, ideas, commodities, and cultural artifacts. In addition to literatures of the United States, May not 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 key critical frameworks of nation and migration, transnationalism and globalization, and tradition and modernity frame analysis of literary texts, particularly relationship between literature and nationalism. Course does not consider nation building 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 revolution and Latin American independence movements and beyond. Course does not consider topics such as slavery, colonialism, slavery, transnational dynamics, and cross-cultural transformations among indigenous, European, and African civilizations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

136. Creative Writing: Poetry. (5) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3D, or English 1SL, or creative 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 3H, English 4W or 4HW. Three average-length stories to be completed each term. Some stories may, with instructor's consent, be substantial revision of other stories presented. Classroom discussion based on or in preparation in more than one section per term not permitted. May be repeated for maximum of 15 units. No more than 10 units may be completed with same instructor. P/NP or letter grading.

M138. Topics in Creative Writing. (Formerly numbered 138.) (Same as English Composition M138.) Seminar, three hours. Requisites: 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. Enrolment in more than one section per term not permitted. May be repeated for maximum of 10 units. May be repeated for credit to satisfy workshop requirements for English creative writing concentration. P/NP or letter grading.

139. Individual Authors. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. 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.

140B. Chaucer: Canterbury Tales. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive 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 Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Major poetry and prose of early medieval Britain, including epic, romance, history, saints' lives, and travel literature. Substantial research component included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

142. Later Medieval Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Reading and historical explication of major writers of 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 Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Historical and 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 research component may be repeated for credit with topic or instructor change. P/NP or letter grading.

143. Drama to 1576. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. English drama from its Latin and Anglo-Norman roots to opening of first public playhouse. P/NP or letter grading.

144. Medieval Romance and Literatures of Court. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Investigation of medieval court culture, exploring concepts 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 devotional genres and their complex relationships with traditions of dissent in medieval English culture, encompassing hagiography, vision, communal narrative, intertextual debate, and Lollard manifestos and translations. Texts may include Dream of Rood, South English Legend, Ancrune Wisse, Piers Plowman, Lollard writings, macropoetry, Wakefield cycle, Shoemakers of Julian of Norwich, and Book of the Holy Kennel. 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 engaged in complex literary and cultural interactions; identified by concerns over literary production. Texts may include cycles such as texts gathered as Matter of Britain, Matter of Rome, or Matter of France; also Manilius, manuscript collections such as Auchinleck manuscript or the letter book, framed texts such as De damo, Canterbury Tales, 1001 Nights, and Gower's Confesso Amantis, or collections of exempla, legends, 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 tradition, Medieval histories survive in every language of medieval Britain, including Latin, Old English, Welsh, Irish, Anglo-Norman French, and Middle English. Multilingual ubiquity of history writing points to pressures of literacy and impact of manuscript production. Texts are always shaped by political, cultural, linguistic, and textual pressures of present tense. Texts may include histories, chronicles, material records, and historiographical enterprise. May be repeated for credit with topic or instructor change. P/NP or letter grading.

148. Cultures of Middle Ages. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Interdisciplinary survey of particular medieval societies, with special emphasis on complex interactions between different ethnic and cultural traditions of medieval world. Examination of processes of intercultural encounter and transmission: classical or patristic traditions into medieval culture, crusade, travel literature, and literature of contact zones, including interactions between Celts, Anglo-Saxons, and Latin culture, and debates between Pagans, Jews, Christians, and Muslims. May be repeated for credit with topic or instructor change. P/NP or letter grading.

149. Medievalism. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of postmedieval production of Middle Ages as period for scholarly study, primarily connected to medieval writers, artists, and popular media. Topics may include 19th-century production of medieval studies and its links to nationalism, notably 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. 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, city, churches, and countryside of varied sorts of texts—masques, religious dramas, sea dramas, charivari, religious 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, city, churches, and countryside of varied sorts of texts—masques, religious dramas, sea dramas, charivari, religious 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 cosmorealism, 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 in the 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 1700. May be repeated for credit with topic or instructor change. P/NP or letter grading.

156. Devotion and Dissent. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Enlarges on 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 1688, or Charles II’s royal exclusion to late 18th century. 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 selected works of English Renaissance literature and culture in relation to literatures of antiquity and continental Renaissance. Topics may include epic tradition, forerunners of novel, Renaissance humanisms, literature of love, monsters and marvels, representing nature. Ovidian transformations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

159. Topics in Literature, circa 1500 to 1700. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of literatures from or about this time period and consideration of how various topics of cultural, political, and social importance were expressed in literature of this period and changes in literary influence. P/NP or letter grading.

160R. Topics in Literature, circa 1500 to 1700: Research component. (1) Lecture, 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.

161A. Poetry in English to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Consideration of poetry across genres and throughout period. Topics may include rise of satire, verse forms including Pinarric ode, mock-epic, and verse-epistle, questions of literary imitation and originality, poetry’s relationship to empirical and Cartesian views of authorship. May be repeated for credit with topic or instructor change. P/NP or letter grading.

161B. Drama in English to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced 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.

162A. Earlier Romantic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of writings by Blake, Wollstonecraft, W. Wordsworth, Coleridge, and Austen, with collateral readings from such authors as Godwin, Burke, Paine, Radcliffe, Edgeworth, Baillie, C. Smith, Burns, Soutey, D. Wordsworth, Lamb, DeQuincey, and Scott. P/NP or letter grading.

162B. Later Romantic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of writings by Byron, Keats, Percy Shelly, and Mary Shelly, with collateral readings from such authors as Hazlitt, Hunt, Lamb, Wordsworth, Austen, Byron, Wordsworth, Coleridge, Southey, Austen, Byron, Keats, Wollstonecraft, and others. May not be repeated for credit. P/NP or letter grading.

163B. Transatlantic Romanticism. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Transatlantic studies have been central in generating new conceptual frameworks for thinking through complex issues related to interconnectedness of Atlantic rim cultures. With focus on ways in which cultural, intellectual, and political identities are reworked and reinscribed by transatlantic movement of peoples, ideas, and cultural artifacts, expansion of notions of Romanticism to include transoceanic perspectives, and shared understanding of early 19th-century Romantic literature as transatlantic phenomenon. May not be repeated for credit. P/NP or letter grading.

163C. Jane Austen and Her Peers. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced 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 poetic genres from Napoleonic Wars to middle decades of 19th century. Readings enable students to understand legacies of 18th-century Romantic writing and emergence of new forms such as dramatic monologue and novel-in-verse. 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 traditions 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 major works as literature gradually infused almost every aspect of British imperial and political systems, expansion of notions of Romanticism to include transnational and metropolitan spaces. May not be repeated 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. 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 by men and women. May not be repeated for credit. P/NP or letter grading.
and literature of embodiment. May be repeated for credit with topic or instructor change. P/NP or letter grading.

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 1832, 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. Histori- cal survey of American literatures from Jacksonian era to end of Civil War, including emerging 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 Ameri- can 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 Ameri- can 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 repre- sentative 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 tra- ditionally been identified as American classics and asks both what makes American literature distinctive and what its relations are to other literatures in En- glish. 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 period. May be repeated for credit with topic or instructor change. P/NP or letter grading.

169R. Topics in Literature, circa 1700 to 1850: Research Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. 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.
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. (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.

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) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C, and completion of upper-division courses required for major. Limited to senior English or American literature and Culture majors. Students use knowledge from prior coursework to address current topics in discipline and work with faculty members on focused topic of research. Culuminating paper or project and class presentation required. May be repeated once for credit with topic or instructor change. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate 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.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study, seminar, or instruction by instructor to 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.

190H. Honors Research Colloquia in English. (1) Seminar, one hour. Enforced corequisite: course 198A or 198D. Designed to bring together students under-taking supervising faculty research for departmental honors in seminar setting with one or more faculty members to discuss their own work in progress and critical readings related to honors projects. Led by one supervising faculty member. May be repeated for credit. P/NP or letter grading.

191A. Topics in African American Literature. (5) (Same as African American Studies M179A.) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3H. Variable specialized studies course in African American literature. Topics may vary. May be repeated for credit with topic or instructor change. P/NP or letter grading.

191B. Topics in Chicana/Chicano and/or Latina/Latino Literature. (5) (Same as Chicana and Chicano Studies M139.) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3H. Variable specialized studies course in Chicana/Chicano 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 Wave; and others. 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 M159.) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3H. Variable specialized studies course in Asian American literature. Topics may include genres (autobiography, novel, poetry, short fiction, or drama); specific nationalities within Asian American community; themes of transnational migration; cross-cultural, interdisciplinary, or intercultural negotiation; and gender, race, ethnicity, politics, folklore, ethnic literature, and creative writing. May be repeated for credit with topic or instructor change. P/NP or letter grading.

191D. Topics in Queer Literature and Cultures. (5) (Same as Gender Studies M191D and Lesbian, Gay, 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 Women’s and Gender. (5) (Same as Gender Studies M191E and Lesbian, Gay, 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 for 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 members in English, Institute of the Environment and Sustainability, and/or 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, artists, and scholars. Exploration in greater depth of theoretical 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. Work experience, 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 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.


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

Graduate Courses


201A. Criticism and Interpretation from Classical to Early Renaissance. (4) Lecture, four hours. Introduction to the interpretation of major texts in history of critical theory and interpretation from pre-Socrates to Descartes, including classical literary criticism (Plato, Aristotle, Horace, Longinus), biblical critics (Clement of Alexandria, 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 Modernism. (4) Lecture, three hours. Continuation of course 201A, proceeding from neoclassical and Enlightenment critical theory through Victo-
203. Computers and Literary Research. (4) Lecture, four hours. Prior knowledge in this area is not required. Practice in writing and using computer programs for analysis of literary style, content, and authorship. S/U or letter grading.

204. History of Rhetoric. (4) Lecture, four hours. Reading of basic texts in history of rhetoric and selection to intellectual, political, and social characteristics.

205. Survey of Rhetoric. (4) Lecture, four 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, Durkheim, Saussure, Heidegger, Shklovsky, Benjamin, Adorno, Levi-Strauss, Lacan, Barthes, Derrida, Deleuze, Fanon, Foucault, Irigaray, Lyotard, Bourdieu, and Bhabha. S/U or letter grading.

206. Computers and Literary Research. (4) Lecture, four hours. Prior knowledge in this area is not required. Practice in writing and using computer programs for analysis of literary style, content, and authorship. S/U or letter grading.

207. History of Rhetoric. (4) Lecture, four hours. Reading of basic texts in history of rhetoric and selection to intellectual, political, and social characteristics.

230. Workshop: Native Writing. (2 to 4) Lecture, two to four hours. Preparation, submission, and revision 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 aspect(s) of Old English period from 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.


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.

243. 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. Cauchier. (4) Lecture, four hours. May be repeated for credit.

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.

258. Studies in Novel. (4) Lecture, three hours. Studies in evolution of genre from its beginning to present; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.


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. Discussion 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 M200B.) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms—oral, song, religion, dance—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 themes, 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 assistantship 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 adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study. (2 to 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. Consult 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 6) Tutorial, to be arranged. Limited to PhD students unable to enroll in seminars in their field 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

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

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Richard B. Kaner, PhD (Chemistry and Biochemistry)
Alfred E. Osborne, Jr., PhD (Management)
James W. Stigler, PhD (Psychology)
Miguel M. Unzueta, PhD (Management)
Wiltie Z. Wendorch, 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 advisor. 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
- Management 109, 111, 133, 156, Dance C184, Digital Humanities 101, 150, Economics 106E, 173A, 173B, Environment 163, Ethnomusicology 105, Management 162, 163, 164, 167, Sociology 172. At least two of these elective courses must be taken from the management courses listed above.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 3.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

ENVIRONMENT AND SUSTAINABILITY, INSTITUTE OF THE CENTER FOR INTERDISCIPLINARY INSTRUCTION

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Environment and Sustainability 310-825-5008

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Susanna B. Hecht, PhD
Ursula K. Heise, PhD (Marcia H. Howard Term Professor of Literary Studies)
Stephen P. Hubbell, PhD
Diana L. Huffaker, PhD
Jennifer A. Jay, PhD
Peter M. Kareiva, PhD
Dennis P. Lettenmaier, PhD
Glen M. MacDonald, PhD (John Muir Memorial Endowed Professor of Geography)
Timothy Malloy, JD
James C. McWilliams, PhD
Mary D. Nichols, JD, in Residence
Gregory S. Okin, PhD
Edward A. Parson, MSc, PhD (Dan and Rae Emmett Endowed Professor of Environmental Law)
Suzanne E. Paulson, PhD
Stephanie S. Pincock, PhD, in Residence
Michael L. Ross, PhD
Lawren Sack, PhD
H. Bradley Shaffer, PhD
Monica L. Smith, PhD
Thomas B. Smith, PhD
Victoria L. Sork, PhD
Michael K. Stenstrom, PhD
Irwin H. Suffet, PhD
Blaire Van Valkenburgh, PhD
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 integrated freshman-team-taught courses over the fall, winter, and spring quarters. The fall and winter quarter courses consist of lectures and discussions. The spring quarter consists of seminars and activities in which students explore specialized food-related environmental and sustainability topics such as sustainable agriculture, food culture and justice, and strategies for feeding the growing human population.

At the graduate level, the IoES offers two degree programs and a graduate certificate. The first program is the Environmental Science and Engineering (DEnv) professional doctorate program that was founded in 1973 by Nobel laureate Dr. Willard Libby, who perceived a need to train environmental scientists, engineers, and policymakers in a more interdisciplinary manner than is afforded by traditional PhD programs. The program is designed with an appropriate balance of breadth and specific skills, based on a strong master's-level foundation in a science or engineering discipline. The curriculum consists of formal coursework across a full spectrum of relevant physical, biological, social, and engineering disciplines, as well as interdisciplinary research training and an off-campus residency where students complete their dissertation embedded in an agency, business, or non-profit organization.

UCLA remains unique in the country in awarding the Doctor of Environmental Science and Engineering degree. The second program is the Environment and Sustainability PhD program that was launched in 2018. The program equips students with diverse perspectives to develop profound new ideas, knowledge and answers to the most important concerns facing people and the planet. The program provides a deep understanding of how fundamental principles of environmental science and sustainability can be applied to search 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-
ticipation 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**

**Requirements:** Chemistry 14A, 14B, and 14BL (or 20A, 20B, and 20L), Environmental 10, Geography 7, Life Sciences 7A, 7B, Mathematics 3A and 3B (or 31A and 31B, or Life Sciences 30A and 30B), Physics 5A and 5C (or 1A and 1B), Statistics 12 or 13 (or Life Sciences 40).

For the **atmospheric and oceanic sciences minor**, Chemistry and Biochemistry 14C (or 30A) or Mathematics 3C (or 32A) or Physics 1C (or 5B) is also required.

For the **conservation biology minor**, Chemistry and Biochemistry 14C (or 30A) or Life Sciences 7C and 23L is also required.

For the **Earth and environmental science minor**, Chemistry and Biochemistry 14C (or 30A) or Mathematics 3C (or 32A) or Physics 1C (or 5B), Earth, Planetary, and Space Sciences 1, and one course from 5, 13, 15, or 61 are also required.

For the **environmental engineering minor**, Mathematics 3C (or 32A) is also required.

For the **environmental health concentration**, Chemistry and Biochemistry 14C (or 30A) is also required.

For the **environmental systems and society minor**, one course from Chemistry and Biochemistry 14C (or 30A), Earth, Planetary, and Space Sciences 1, Life Sciences 7C (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) is also required.

For the atmospheric and oceanic sciences minor, seven 4-unit courses, including (1) three from Atmospheric and Oceanic Sciences M100, 101, 102, 103, 104, M105, M106, 107, C110, C115, M120, 130, 141, C144, 145, 150, 155, C160, C170, 180 and (2) four additional courses, two of which must be upper-division, for example, from 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.

**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.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

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

**Graduate Degrees**

The Institute of the Environment and Sustainability offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Environment and Sustainability, and the Doctor of Environmental Science and Engineering (DEnv) degree.

**Environment**

### Lower-Division Courses

- **M1A-M1B-M1CW:** Foods: Lens for Environment and Sustainability. (F–S) (Same as Clusters M1A-M1B-M1CW) Course M1A in environment and sustainability is a mandatory component. M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. Letter grading.
- **M1A-M1B:** Lecture, three hours; discussion, two hours. Food as lens for local and global 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.** (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.** 1. Lecture, three hours; discussion, one hour. Introduction to sustainability with emphasis on environmental components, 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. Letter grading.
- **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.

### 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 human history, mechanisms, and consequences of interactions between humans and environment. Exploration in depth of three thematic topics (deforestation, desertification, and greenhouse gas increase and ozone depletion) and four major subjects (soil, biodiversity, water, and landforms). P/NP or letter grading.
- **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. 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 weathering. Examples of soil order, pedogenesis, biological properties; water, erosion, and pollution; management of soils as related to plant growth and distribution. P/N or letter grading.

M127L. Soils and Environment: Field. (1) (Same as Ecology and Evolutionary Biology M127L and Geog-

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 fore- ests. P/N 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 that spawned, and new and changing nature of modern environmentalism. Introduction to early ideas of environmentalism and modern issues. Shaped environmental thought, and how this was later transformed by 19th-century ideas and rise of American conservation movements. Review of political, economic, technological, management, and policy issues. Letter grading.

M133. Environmental Sociology. (4) (Same as Soci- ety and Genetics M133 and Sociology M115.) Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interrelated anthropological factors (e.g., class, race, gender, and religion) and environmental factors (such as pollution, waste disposal, sustainability, and global warming). P/N or letter grading.

134. Environmental Economics with Data Analysis. (4) (Formerly numbered M134.) Lecture, three hours. Requisite: Statistics 12 or 13. Examination of chal- lenges of balancing environmental protection with wants and needs of people in economy. Focus on how to design regulatory policies that meet envi- ronmental goals. How to quantify cause-and-effect relationships, for example, between pollution and in-	

M135. California Sustainable Development: Eco- nomic Perspective. (4) (Same as Public Policy M149 and Urban Planning M163.) Lecture, three hours. Examina-
tion of specific environmental challenges that California faces. Microeconomic perspective used, with special emphasis on incentives of polluters to reduce environmental impacts, and state government to address these issues. Focus on measurement and empirical hypothesis testing. P/N or letter grading.

M137. Historical Geography of American Environ-

M140. Foundations of Environmental Policy and Regulation. (4) Lecture, three hours. Introduction to environmental policy and regulation in U.S. Provides basic knowledge and skills needed to work as profes-
sional environmental problem solver. Exploration of environmental issues related to regulation, role of science in informing policy and regulation, evo-
tion of environmental regulation, different types of regulatory instruments, regulatory process, and alter-
-native approaches to decision making. Includes California Environmental Quality Act (CEQA), Project 65, California’s long-standing leadership role in air pollution control, and state’s pioneering ef-

torts in regulating greenhouse gas emissions. P/N or letter grading.

150. Environmental Journalism, Science Communica-

tions, and New Media. (4) Lecture, three hours. Introductory course on 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 en-

vironmental challenges, exploring solutions, and en-
gaging public in newspapers, television, radio, movies, online, on mobile devices, and through social media. Discussion of possibilities and limitations of different media and information and media of communications for environmental science, policy, public under-
standing, and individual decision making. Production by students of multimedia communications in va-

ty of media. P/N 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 environ-

M155. Energy in Modern Economy. (4) (Same as Physics M155.) Lecture, three hours. Requisites: Mathematics 3A and 3B (or 31A and 31B), Physics 1A and 1B. Examination of physics of energy, history of energy develop-

M157. Energy, Environment, and Development. (4) Lecture, three hours. Requisites: Mathematics 3A and 3B (or 31A and 31B), Physics 1A and 1B (or 6A and 6B). Introduction to basic energy concepts and exami-
nation of role of various energy sources, energy con-

M162. Entrepreneurship and Finance for Environ-

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, com-
plex systems of governance. Institutions and politics matter deeply. Overview of how environmental govern-
ance is practiced and how it might be im-
proved. Letter grading.

166. Leadership in Water Management. (4) Lecture, three hours; discussion, one hour. Limited to ju-

159. Life Cycle Assessment. (4) Lecture, three hours. Requisites: Mathematics 3A and 3B (or 31A and 31B). Public discourse about current patterns of production and consumption of energy, and goods and services. Role of government and corporate strategies that deliver value to shareholders needs to focus more broadly on sustainability. Corporate strategies that deliver value to shareholders must be more environmentally responsive. Emphasis on corporate strategies that deliver value to shareholders while responding to environmental concerns. P/N or letter grading.

161. Global Environmental and World Politics. (4) (Same as Political Science M122B.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisites: Political Science 20. Politics and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. P/N or letter grading.

162. Entrepreneurship and Finance for Environ-

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/N or letter grading.

164. 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, com-
plications and methods from physical and life sciences, engi-
neering, environmental science, economics, and public policy. Basic quantitative skills provided to an-
alyze and critique technical, economic, and policy choices to address challenge of balancing economic growth and environmental sustainability. P/N 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 environmental inequity is highly complex phenomenon, multidisciplinary and multipopulation approach taken, using alternative ways of understanding, interpreting, and taking action. P/NP or letter grading.

170. Environmental Science Colloquium. (1) Seminar, five minutes; one field trip. Limited to undergraduate students. Study of current topics in environmental science, including participation in weekly colloquium 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 12 or 13. Limited to Environmental Science majors who have completed 40 or more units of preparation for major courses, including statistics, and 12 or more units of upper-division courses toward major or minor requirements. Examination of case studies and presentation of tools and methodologies in environmental science, building on what students have been exposed to in other courses. Letter grading.

180B. Practicum in Environmental Science. (5) Lecture, two hours; field work, five hours. 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 a social multidisciplinary issue. Particular emphasis on developing skills required for working as professionals in this field. May involve site investigations, original data collection and analysis, mapping and geographic information systems, and environmental policy and law issues. Case study to be defined and conducted with collaboration of local agency or nonprofit institution. Letter grading.

180C. Practicum in Environmental Science. (6) Lecture, two hours; field work, six hours. Enforced requisite: course 180B. Limited to junior/senior Environmental Science majors. Investigation of various aspects of one environmental case study representing a social multidisciplinary issue. Particular emphasis on developing skills required for working as professionals in this field. May involve site investigations, original data collection and analysis, mapping and geographic information systems, and environmental policy and law issues. Case study to be defined and conducted with collaboration of local agency or nonprofit institution. Letter or S/U grading.

185A. Sustainability Talks. (1) Lecture, two hours. Analysis of principles of sustainability through series of lectures and films by world-renowned faculty members, authors, environmentalists, entrepreneurs, politicians, and public thinkers. May be repeated for credit. P/NP grading.

185B. Sustainability Action Research. (2) Lecture, two hours; fieldwork, four hours. Investigation of issues of campus sustainability, including energy efficiency, transportation, waste stream management, sustainable food practices, and more by student researchers to generate coalition of student researchers that, together with faculty members and UCLA staff, strive to make UCLA a more sustainable community. May be repeated for credit. Letter grading.

185C. Sustainability Action Leaders. (3) Seminar, two hours; fieldwork, six hours. Students lead research to investigate issues of campus sustainability, including energy efficiency, transportation, waste stream management, sustainable food practices, and more to generate coalition of student researchers to take leadership role in sustainability efforts. Students work with campus sustainability staff to develop projects that can be implemented by students and UCLA staff, striving to make UCLA a more sustainable community. May be repeated for credit. Letter grading.

186. Comparative Sustainability Practices in Local and Global Contexts. (4) [Same as Fieldwork, 4] Fieldwork, guided fieldwork and comparative analysis used to assess local sustainability practices and policies in different regional or international settings. Emphasis on comparing role of local and regional culture, geography, economic climate, and governmental policies on sustainability awareness and practices. Use of observations, interviews, and unobstructed measures to document and analyze role and influence of local context on sustainability behavior of individuals, small businesses, and other institutions in everyday life. Letter grading.

188A-188B. Special Courses in Environment. (4–2) Lecture, three hours; discussion, one hour (when scheduled—course 188A) and two hours (course 188B). Departmentally sponsored experimental or temporary course, or as those taught by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

188C. Advanced Honors Seminars. (1) Seminar, three hours. Limited to students designated as adjuncts to the 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.

M192. Undergraduate Practicum in English: Journals. (2) [Same as English M192 and English Compou. M192.) Seminar, two hours. Training and supervis. 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.

193. Journal Club Seminars: Environment. (2 or 4) Tutorial, to be arranged. May be repeated for credit with different topics and instructors. May be repeated for credit. S/U grading.

195. Community or Corporate Internships in Environmental Science. (2 or 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to junior/senior majors. Internship in supervised setting in community agency or business related to environmental 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 undergraduate adviser. 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 research 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. Individual contract required. Letter grading.

199. Directed Research in Environment. (2 to 4) Tutorial, two hours. Preparation: submission of written proposal outlining study or research to be undertaken. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Progress report must be submitted to faculty mentor at end of term. Culfaining paper or project required. May be repeated for credit, but only 4 units may be taken each term. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200B. Issues and Methods in Environment and Sustainability. (4–4) Seminar, four hours. Course 200A is requisite to 200B. Examination of interdisciplinary case studies that approach problems in environment and sustainability as issues with scientific, social, economic, political, philosophical, ethical, historical, cultural, and economic dimensions. Case studies illustrate use of qualitative and quantitative methods of analysis drawn from natural sciences, social sci-
ance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Environmental Science and Engineering Problems Course. (8) Seminar, eight hours. Primarily designed for environmental science and engineering doctoral students. Multidisciplinary technical and socioeconomic analysis and prognosis of significant current environmental problems. May be repeated for credit. S/U grading.

M412. Effective Technical Writing. (2) Same as Environmental Health Sciences M412.) Seminar, two hours. Essentials of grammar, punctuation, syntax, organization, and format needed to produce well-written journal articles, research reports, memoranda, letters, and resumes. Development of technical writing skills using critique, exercises, and examples. S/U grading.

M413. Advanced Technical Writing. (2) (Formerly numbered 410B.) (Same as Environmental Health Sciences M413.) Seminar, two hours. Development of advanced technical writing skills, with exercises focused on preparation of manuscripts for publication in peer-reviewed journal. S/U grading.

M414. Effective Oral Presentation. (2) (Formerly numbered 410A.) (Same as Environmental Health Sciences M414.) Seminar, two hours. Introduction to oral presentation. Development of oral presentation skills, including content structure, visual aids, delivery, and audience interaction. S/U grading.

M415. Advanced Oral Presentation. (2) (Formerly numbered 410C.) (Same as Environmental Health Sciences M415.) Seminar, two hours. Development of advanced oral presentation skills. Preparation for oral qualifying examination. S/U grading.


599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. Limited to students who have advanced to doctoral candidacy. May not be repeated toward any degree course requirements. May be repeated for credit. S/U grading.

ENVIRONMENTAL HEALTH SCIENCES
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Scope and Objectives
The Department of Environmental Health Sciences focuses its research and educational activities on the protection of human health from biological, chemical, and physical hazards in the environment. Its graduates are scientists, professionals, and leaders capable of identifying and measuring stressors of environmental concern; evaluating the health, environmental, and all other impacts of such stressors; developing means for their effective management; and evaluating alternative policies directed at improving and protecting health and the environment. Such training is accomplished through several degree programs that offer specialized study in selected academic areas of environmental health sciences such as air pollution, environmental biology, environmental chemistry, environmental policy, toxicology, built environment and health, climate and health, industrial hygiene, and water quality. Graduates of the department pursue careers in the private or public sector as researchers, educators, managers, policymakers, and/or practitioners.

The department offers MS and PhD degrees in Environmental Health Sciences and, through the Fielding School of Public Health, the MPH degree with a specialization in environmental health sciences (see Public Health Wide Programs). A concurrent degree program in Environmental Health Sciences MPH Urban Planning MURP) is also offered. The in-terdepartmental Molecular Toxicology program offers a PhD degree.

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

Graduate Degrees
The Department of Environmental Health Sciences offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Environmental Health Sciences.

Environmental Health Sciences

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. 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) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
100. Introduction to Environmental Health. (4) Lecture, three hours; discussion, one hour. Preparation: one course each in chemistry and biology, introduction to environmental health, including coverage of sanitary principles and chronic and acute health effects of environmental contaminants. P/NP or letter grading.

101. Fundamentals of Chemistry in Environmental Health. (2) Seminar, one hour; discussion, one hour. Designed for undergraduate students in Public Health minor or master's and doctoral students in Fielding School of Public Health. Ideal for students who feel that their background in chemistry is not strong enough and are planning to take course 100, C200A, C200B, or 200C or are concurrently enrolled in one of those courses. Interactive seminar with focus on critical concepts in chemistry 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. Currently scheduled with course C225, P/NP or letter grading.
C132. Environmental Policy for Science and Engineering. (4) Lecture, four hours. Limited to senior undergraduate and graduate students. Examination of theoretical underpinnings of several major types of regulatory policy, as well as practical issues involved in implementing and enforcing each. Exploration of selection and impact of regulatory forms from variety of disciplines and viewpoints. Focus on traditional command and control regulation (including self-executing standards and permit systems), market-based regulation (such as emissions trading), remediation, and emerging regulatory approaches such as management-based regulation and alternative assessment. Issues of compliance and enforcement. Concurrently scheduled with course C235. P/NP or letter grading.

C140. Fundamentals of Toxicology. (4) Lecture, four hours. Preparation: one course each in biology, organic chemistry, and biochemistry. Essential aspects of toxicology, with emphasis on human species. Absorption, distribution, excretion, biotransformation, as well as basic toxicologic processes and organ systems. Concurrently scheduled with course C240. Letter grading.

C152D. Properties and Measurement of Airborne Particles. (4) Lecture, four hours. Preparation: one year of college chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C252D. P/NP or letter grading.

C157. Risk Assessment and Standard Setting. (4) Seminar, four hours. Requisites: course C140, Epidemiology 100. Designed to provide students with opportunities to develop a scientific basis for associations of selected occupational and environmental exposures with disease. Special emphasis on critical evaluations of literature. Attention specifically to interface of science and regulatory standards. Concurrently scheduled with course C257. P/NP or letter grading.


M166. Environmental Microbiology. (Same as Civil Engineering M166L) Lecture, four hours; discussion, two hours; outside study, six hours. Preparation: course M145L. General laboratory practice in environmental microbiology. Examination of microbial activity in environmental samples, laboratory setups for studying environmental microbiology. Letter grading.

C185A. Foundations of Environmental Health Sciences. (4) Lecture, four hours. Preparation: two years of undergraduate biology and chemistry. Introduction to field of environmental health sciences designed for students pursuing MS degrees. Examination of series of topics that form the science of environmental health (e.g., population, agriculture/food, microbiology, energy, climate change, water, waste, air) by introducing scientific basis from ecological perspective and description of health on the molecular and cellular level. Emphasis on scientific aspects of field, with focus on critique of primary literature and quantitative approaches for examination of topics to provide skills that are critical to perform research. Concurrently scheduled with course C200A. Letter grading.

C185B. Foundations of Environmental Health Sciences for Public Health Professionals. (6) Lecture, six hours. Preparation: one year of undergraduate biology and chemistry. Introduction to field of environmental health sciences for students pursuing MPH degree in Environmental Health Sciences. Examination of series of topics that form the science of environmental health (e.g., population, agriculture/food, microbiology, energy, climate change, water, waste, air) by introducing scientific basis from ecological perspective and description of health on the molecular and cellular level. Emphasis on scientific aspects of field, with focus on critique of primary literature and quantitative approaches for examination of topics to provide skills that are critical to perform research. Concurrently scheduled with course C200A. Letter grading.

C200A. Foundations of Environmental Health Sciences. (6) Lecture, six hours. Preparation: one year of undergraduate biology and chemistry. Introduction to field of environmental health sciences for students pursuing MS degrees. Examination of series of topics that form the science of environmental health (e.g., population, agriculture/food, microbiology, energy, climate change, water, waste, air) by introducing scientific basis from ecological perspective and description of health on the molecular and cellular level. Emphasis on scientific aspects of field, with focus on critique of primary literature and quantitative approaches for examination of topics to provide skills that are critical to perform research. Concurrently scheduled with course C185A. Letter grading.

C200B. Foundations of Environmental Health Sciences for Public Health Professionals. (6) Lecture, six hours. Preparation: one year of undergraduate biology and chemistry. Introduction to field of environmental health sciences for students pursuing MPH degree in Environmental Health Sciences. Examination of series of topics that form the science of environmental health (e.g., population, agriculture/food, microbiology, energy, climate change, water, waste, air) by introducing scientific basis from ecological perspective and description of health on the molecular and cellular level. Emphasis on scientific aspects of field, with focus on critique of primary literature and quantitative approaches for examination of topics to provide skills that are critical to perform research. Concurrently scheduled with course C185B. Letter grading.

C201. Seminar: Health Effects of Environmental Contaminants. (2) Seminar, two hours. Requisites: courses C200A or C200B and C200C. Emphasis on health effects of air, water, and environmental pollutants on man and their role in the environment. May be repeated for credit. S/U or letter grading.

C202. Seminar: Environmental Chemistry. (2) Seminar, one hour. Requisites: courses C200A, C200B, and C200C. Environmental chemistry aspects of environmental health sciences designed for students pursuing MPH degree in Environmental Health Sciences. May be repeated for credit. S/U grading.

C203. 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.

C204. Seminar: Exposure Assessment. (2) Seminar, two hours. Discussion of various topics in exposure assessment. Topics vary by term and include aspects of population activity, microenvironments, types of monitoring (outdoor, indoor, personal, biomarkers), and multimedia sources of exposure. S/U grading.

C205. Environmental Health Sciences Doctoral Seminar. (2) Seminar, two hours. Limited to environmental health sciences doctoral students. Presentation of current research of environmental health sciences doctoral students. May be repeated for credit. S/U grading.


C207. Introduction to Geographic Information Systems. (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.

C208. Built Environment and Health. (4) Lecture, three hours of discussion or seminar. Limited to public health and urban planning graduate students. Interdisciplinary course on built environment and health and breaking down silos. U.S. and other developed, as well as developing, countries are facing increasingly lethal and costly epidemics of acute and chronic diseases related to land use and built environment decisions. While hazards presented by air and water interactions are well recognized, they are exacerbated by toxicological illnesses, there is increasing recognition of hazards presented by building and community design that fail to recognize human health. Land use and built environment decisions are facing increasing social and racial minority. Impacts range from very acute (motor vehicle trauma) to long term (obesity, cancer, heart disease). Decisions have as their bases economic, social, political, cultural, and 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, conceptualized as series of lectures, problem sets, hands-on field exercises, and group projects, to help students develop skills necessary to integrate concepts across disciplines in field of environmental health. May be repeated once. Letter grading required to qualify for Registered Environmental Health Specialist (REHS) certification. S/U or letter grading.

M211. Epidemiologic Methods in Violent Injury. (4) (Same as Biostatistics M220.) Lecture, four hours. Lecture: four hours. Requisites: Epidemiology 200A, 200B, and 200C (or 100). Description and critical evaluation of epidemiologic methods in approaches to understanding incidence and current controversies in violence and injury-related matters. Letter grading.


213. Seminar: Practical Aspects of Biosafety and Biosecurity. (2) Seminar/discussion, two hours. Preparation: Undergraduate students by permission only are required to have successful completion of 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 risk management that are needed for individuals wishing to serve as interns in UCLA biosafety compliance office. Concurrently scheduled with course C235. S/U or letter grading.

214. Children's Environmental Health: Prenatal and Postnatal. (4) Lecture, four hours. Preparation: one year of introductory biology. Examination of treatments and exposures in human populations: how environmental exposures to physical, chemical, and biological agents during periods of maturation (from fertilization to adulthood) cause physiopathological perturbations in homeostasis at any stage during lifetime. Letter grading.


C225. Atmospheric Transport and Transformations of Airborne Chemicals. (4) Lecture, four hours. Preparation: one year of calculus, one course each in physics, general chemistry, and biology. Examination of various airborne chemicals in the environment. Designed for science, engineering, and public health students. Role of regional or long-range transport, and atmospheric lifetimes and fates of airborne chemicals in phenomena such as photochemical smog, acid deposition, stratospheric ozone depletion, accumulation of greenhouse gases, and global distribution of volatile toxic compounds. Concurrently scheduled with course C125. S/U or letter grading.

M229. Epidemiology of Foodborne Illnesses. (4) (Same as Epidemiology M229.) Lecture, four hours. Preparation: courses Biostatistics 100A, Epidemiology 200A, 200B, and 200C (or 100). Food poisoning is significant cause of morbidity and mortality in both developing and developed world. Examination of etiologic agents of foodborne illness, corequisites: courses C225D, S/U or letter grading.

252. Physical Agents in Work Environment. (2 to 4) Lecture, three 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.

254. 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. Designed to provide students with opportunity to review scientific basis for association of selected occupational and environmental exposures with disease. Special emphasis on critical evaluations of methods in risk assessment with the scientific basis of science and regulatory standards. Concurrently scheduled with course C157. S/U or letter grading.

258. Identification and Analysis of Hazardous Wastes. (4) Lecture, three hours; discussion, one hour; laboratory, one hour; one field trip. Requisites: course 252E, Biostatistics 100A. Designed to define, identify, label, and quantify hazardous wastes and how workers should be protected. Provides critical understanding of all analytical aspects of hazardous wastes, health aspects, and regulation and practice of handling hazardous wastes. Letter grading.

259A. Occupational Safety and Ergonomics. (4) Lecture, four hours. Overview of most frequent and severe occupational injuries and illnesses; their distribution, causes, analysis methods, and control approaches, including low back pain, falls, machine exposures, upper extremity musculoskeletal disorders, fire safety, and selected ergonomics topics. Letter grading.

259B. Workplace Safety. (2) Lecture, two hours. Introduction to broad range of topics in workplace safety through lectures, case studies, discussions, and interactive methods, metrics, controls, education, and control methods. Specific topics include traditional safety rubrics, such as fall hazards, machine safety, and fire hazards. Introduction to concepts of safety culture and philosophy. Review and presentation of peer-reviewed articles on topics relevant to course material. Letter grading.

M260. Occupational Epidemiology. (4) (Same as Epidemiology M261.) Lecture, three hours. Requisites: Epidemiology 100; for Epidemiology majors, Epidemiology 200A, 200B, 200C. Methodological considerations, approaches, and limitations in epidemiological studies of occupational groups and environments. S/U or letter grading.


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. Designed for graduate students. Exploration 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.

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. Teratology; 296C. Toxicology and Environmental Health Policy; 296D. Advances in Aerosol Technology; 296E. Occupational and Environmental Exposure Assessment; 296F. Environmental and Experimental Hygiene; 296J. Germ Cell Cytogenetic/Genetic Biomarkers; 296K. 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 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. 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 62-unit minimum total required for MPH degree. Letter grading.

401. Environmental Measurements. (4) Lecture, two hours; laboratory, four hours. Requisites: courses C200A, C200B. Chemistry 20A, 30A. 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 focused on preparation of manuscripts for publication in peer-reviewed journal. S/U grading.

M414. Effective Oral Presentation. (2) (Same as Environment M414) Seminar, two hours. Introduction to oral presentations. Development of oral presentation skills, including content structure, visual aids, delivery, and audience interaction. S/U grading.


454. Health Hazards of Industrial Processes. (4) Lecture, two hours; field trips, four hours. Requisite: course 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. Introduction to water quality, with coverage of hydrology, water chemistry, and various chemical contaminants that may affect human health. Various treatment methods and health implications. 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: 18 units of cognate courses in area of specialization. May not be applied toward master's degree minimum total course requirement. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward MPH and MS minimum total course requirement. May be repeated for credit. S/U grading.

597. Preparation for Master's Comprehensive or Doctoral Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

598. Master's Thesis Research. (2 to 10) Tutorial, four hours. Only 4 units may be applied toward MPH and MS minimum total course requirement; may not be applied toward minimum graduate course requirement. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 10) Tutorial, four hours. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

## Epidemiology

**Epidemiology**

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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 to specific agents, or other pertinent characteristics. Also of concern are the temporal and special distribution of disease, examination of trends, and intervals between exposure to causative factors and onset of disease. The scope of the field extends from study of the patterns of disease to the causes of disease with the goal of 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, demography, and medical geography.

There is a growing core of epidemiologic methodology that includes the principles of study design and conduct, and statistical methods. Epidemiologic tools have become relevant for many other fields 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 and student participation. Graduates of the University of California and University of Southern California, or current students admitted on a case-by-case basis. Students participating in seminars approved by the faculty. Prerequisites: completed course in Biology and English language proficiency. 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. Prerequisites: completed course in Biology and English language proficiency. Letter grading.

Upper-Division Courses

100. Principles of Epidemiology. (4) Lecture, four hours; discussion, two hours. Preparation: one full biological sciences course. Not open for credit to students with credit for course 200A, 200B, or 200C. Introduction to epidemiology, including factors governing health and disease in populations. Letter grading.

197. Individual Studies in Epidemiology. (2 to 4) Tutor, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assignment 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; enforced requisite: 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. Selected topics from current research areas in epidemiologic theory and quantitative methods. Topics selected from biologic models, epidemiologic models, problems in inference, model specification problems, design issues, analysis issues, and confounding. May be repeated for credit with consent of instructor. S/U grading.


M211. Statistical Methods for Epidemiology. (4) (Same as Statistics M250.) Lecture, four hours. Preparation: two terms of statistics (such as Biostatistics 100A, 100B). Requisites: courses 200B, 200C. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. 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 requisite: course M204 or M211. Principles of modeling, including meanings of models, a prior 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 M242.) Lecture, three hours; discussion, one hour. Designed for upper-division and graduate students and others in social or life sciences and those who plan to major in Statistics. Topics include methods of sampling from finite populations, sources of variation, and sample size determination 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 national and international 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.


228. Biology of HIV. (4) Lecture, three hours. Preparation: course 100 or 200A, Biostatistics 100A. Overview of virologic and immunologic aspects of HIV disease for epidemiology or other health disciplines. Brief discussion of clinical manifestations and biosafety in laboratory. Letter grading.

M229. Epidemiology of Foodborne Illnesses. (4) (Formerly numbered 229H.) (Same as Environmental Health Sciences M229.) Lecture, four hours. Requisite: 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, e.g., immunization, deconcentration, 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). Intro- duction 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 re- search on correctional populations in the U.S., including factors that contribute to transmission of communicable pathogens such as mental health, homelessness, and community reintegration. Legal and ethical issues associated with healthcare among incarcer- ated 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.


247. LifeCourse Epidemiology. (2) Lecture, two hours. Requisites: course 100 or 200A, Biostatistics 100A, 100B, or equivalent, or consent of instructor. In- troduction to concepts and methods for studying life- course determinants of health and disease. Consider- ation of roles of family, sexuality, personal, occupa- tional, and environmental factors affecting health. S/U or letter grading.

248. Genetic Epidemiology I. (2) Lecture, two hours. Prerequisite: introductory epidemiology, biostatistics, and genetics. Basic concepts in emerging field of genetic epidemiology, with principal focus on genetic study of cancer. Reviewing gen- etic contributions to disease, identifying genes, and characterizing their main effects and interactions with environmental factors. S/U or letter grading.


254. Nutritional Epidemiology I. (4) (Same as Community Health Sciences M251) Lecture, two hours. Prerequisites: courses 200A, 200B, and 200C (or 100). Preparation: introductory biostatistics and epidemi- ology courses. Review of all aspects of contemporary nutrition studies that require application of epidemiologi- cal principles and methods, ranging from food- borne outbreak investigation to evidence-based regu- latory assessment of health claims for foods. Experi- ence in actual world of collecting, analyzing, and in- terpreting data related to nutrition and health or dis- ease outcomes. S/U or letter grading.

260. Environmental Epidemiology. (2 or 4) Lecture, three hours. Requisites: courses 200A, 200B, and 200C (or 100). Epidemiologic methods applied to evaluation of influences on environ- mental hazards. Topics include air pollution, pesti- cides, drinking water contaminants, use of GIS. Re- view of recent research and new studies published in peer-reviewed literature. S/U or letter grading.


265. Epidemiologic Methods in Occupational and Environmental Health. (4) Lecture, three hours. In- troduction to epidemiologic methods applied to evalu- ation of human health consequences of occupa- tional and environmental exposures. Topics include clusters, meta-analysis, risk assessment, and policy development. Studied by case studies, with focus on techniques to critically evaluate and interpret cur- rent literature. S/U or letter grading.


267. Methodological Issues in Reproductive Epide- miology. (2) Lecture, two hours. Prerequisite: introductory epidemiology of methodologic issues important to epidemiologic studies of reproductive outcomes, including fertility, low birth weight, prematurity, birth defects, pregnancy loss, and perinatal mortality. Study of study de- sign and exposure assessment and identification of potential sources of bias illustrated through review of recent studies published in literature and with partic- ular focus on methodologic and environmental expo- sures and birth cohorts. S/U or letter grading.


270. Behavioral Epidemiology. (4) Lecture, four hours. Requisite: course 100 or 200A. Introduction to range of different methodologies used to collect data and conduct analyses on behaviors studied in epide- miologic research. Study of: prevalence and dis- counted data on behaviors that can be associated with disease outcomes, including methods to collect survey data (i.e., design of questionnaires, inter- viewing techniques, use of technology to collect data) and methods to collect and analyze qualitative data (e.g., ethnographic interviews, focus groups, system- atic observations). Overview information on epidemi- ology of key behavioral factors affecting human health, including sexual risk behaviors, substance use, physical activity, and healthcare utilization. S/U or letter grading.

M272. Social Epidemiology. (4) (Same as Commu- nity Health Sciences M272) Seminar, two hours; dis- cussion/case discussion, one hour. Requisite: course 100. Relation- ship between sociologic, cultural, and psychosocial factors in etiology, occurrence, and distribution of morbidity and mortality; analysis of other socioenvironmental factors associated with general susceptibility to disease and subsequent mortality. Letter grading.

M273. Responsible Conduct of Research in Global Health. (2) Seminar, two hours. Requisite: Community Health Sciences 200. Introduction to fundamental principles of public health ethics, current ethical procedures, guidelines, and requirements, and ethics among 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.

M275. Terrorism, Counterterrorism, and Weapons of Mass Destruction: Practical Approach. (5) Seminar, three hours. Terrorism, its origins, and ways of addressing terrorism at local, national, and global levels. Guest speakers from various UCLA depart- ments and from Los Angeles. Concurrently scheduled with course CM175, S/U or letter grading.

291. Seminar: Special Topics in Epidemiology. (2) Seminar, two hours. Requisites: courses 200A, 200B, and 200C (or 100). Review of current and epidemiologic research contained in recent medical literature. May be repeated for credit. S/U or letter grading.


294. Epidemiology and Policy of Occupational and Environmental Health Issues. (2) Seminar, two hours. Requisites: courses 200A, 200B, and 200C (or 100). Review of current and epidemiologic research contained in recent medical literature. May be repeated for credit. S/U grading.

Ethnomusicology

logical research in cancer in recent medical and epide-
miological 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 guid-
ance and supervision of regular faculty member re-
sponsible 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 se-
lected community organizations for health promotion or medical care. Students must file field placement and program training documentation from available from Student Affairs Office. May not be applied toward MS minimum course requirement; 4 units may be applied toward 44-unit minimum total required for MPH degree. Letter grading.

M403. Computer Management and Analysis of Health Data Using SAS. (4) (Same as Biostatistics M403B.) Lecture, two hours; laboratory, two hours. 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 longitudi-
Stud reference-material from the text documented to be used throughout to illustrate principles of data manage-
ment 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 solu-
tions in data management, including lack of document-
tation, data definitions, unique subject identifiers, and nonstandard data formats. 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 exam-
pl es. S/U or letter grading.

407B. Applied Epidemiologic Research Using R. (2) Lecture, two hours. Requisite: course 407A. De-
gined to broadly offer R coding experience, with em-
phasis 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 introduc-
tion, 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 epide-
miologic 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, imple-
mentation, 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 find-
ings. Communication issues arising in conduct of re-
search, including informed consent process. S/U or letter grading.

420. Field Trials of Health Interventions in Low-Re-
source Settings. (4) Lecture, four hours. Requisite: course 100, or 200A and 200B. Introduction to prac-
tical concepts and issues in conducting epidemiolo-
gic field research in developing countries, including formulation research questions, study site selection, ethical considerations, and logistics of data and spec-
imen collection. S/U or letter grading.

495. Teacher Preparation in Epidemiology. (2) Seminar, two hours. Preparation: consent of UCLA graduate ad-
viser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master's degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate stu-
dents. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward MPH and MS minimum total course requirement. May be repeated for credit. S/U or letter grading.

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 require-
ments. May be repeated for credit. S/U grading.

598. Master's Thesis Research. (2 to 8) Tutorial, to be arranged. Limited only to graduate students. May not be applied toward any degree course require-
ments. 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

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Ethnomusicology
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Professors Emeriti

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J.H.K. Nketia, BA
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Timothy Rice, PhD
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Lecturers

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Adjunct Professors

Amy R. Catlin, PhD
Aibhna Kausal
Chi LI, BA
Tzvetanka T. Varimezova, BA

Adjunct Associate Professors

Ivan Vanimezov, BA
I. Nymon Wenten, PhD

Adjunct Assistant Professors

Supeena I. Adler, PhD
Aaron M. Bittel, MA, MS
James E. Roberson, MBA
Maureen A. Russell, MLS, MA, CPhil

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 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
the basics of Western music theory and musicology; 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-reflection 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 these 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.** (8) 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 the major world regions: Pacific, East Asia, Southeast Asia, South Asia, Middle East, Africa, Europe, Latin America, and U.S. and Canada. P/NP or letter grading.

M6A-M6B-M6C. **Introduction to Musicianship.** (2–2–2) (Same as Music M6A-M6B and Musicology M6A-M6B-M6C.) Laboratory, four hours. Preparation: placement examination. Course M6A is enforced requirement to M6B, which is enforced requirement 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.


15. **American Life in Music.** (4) Lecture, three hours. Impact of ethnicity, race, gender, and other social processes on American music in late 20th century; use of and creativity in music to respond to and shape contemporary social processes. P/NP or letter grading.

19. **Fiat Lux Freshman Seminars.** (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovering and understanding. 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. Required course: 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.

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M25. Global Pop. (5) (Formerly numbered 25.) (Same as Global Jazz Studies M25.) Lecture, four hours; discussion, one hour. Development of world music or world beat, including its meaning and importance to contemporary culture as well as its history and impact. P/NP or letter grading.

30. Music and Media. (5) Lecture, four hours; discussion, one hour. Exploration of ways music is mediated to people by industry, technologies, and corporations. Survey of leading theorists of media and exploration of case studies. P/NP or letter grading.

M35. Blues, Society, and American Culture. (5) (Formerly numbered 35.) (Same as Global Jazz Studies M35.) Lecture, four hours; discussion, one hour. Sociocultural representations of the blues music tradition from its roots in West Africa to its emergence in African American oral culture, with emphasis on philosophical underpinnings and social and political impact of blues and its influence on development of country, jazz, gospel, rhythm and blues, rock, hip-hop music, and other mediums. P/NP or letter grading.

40. Music and Religion. (5) Lecture, four hours; discussion, one hour. Survey of nature, role, and power of religious rituals around the world, using music and ritual of Hinduism, Buddhism, Judaism, Christianity, and Islam, as well as religious traditions of Native Americans and syncretic religious practices in America. Exposure to and musical engagement with Brazilian Candomble, Cuban Santeria, and Haitian vodoun. Letter grading.

45. Music of Bollywood and Beyond. (5) Lecture, four hours; outside study, 10 hours. History and development of South Asian film scores in their filmic context, especially omnipresent songs that most distinctively characterize this genre. P/NP or letter grading.

M50A–M50B. Jazz in American Culture. (5–5) (Formerly numbered 50A–50B.) (Same as Global Jazz Studies M50A–M50B.) Lecture, four hours; discussion, one hour. Course M50A is not requisite to M50B. Survey of history of American jazz with an emphasis on its historical development. 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 jazz, music, and culture. P/NP or letter grading. M50A. Late 19th Century through 1940s; M50B. 1940s to Present.

60. J.S. Bach in His World and Ours. (5) Lecture, four hours; discussion, one hour. Examination of life and music of J.S. Bach in historical and cultural context of his era through its musical manifestations in present, including changes in performance styles, scholarly studies, reception, and contemporary fan culture. P/NP or letter grading.


M73. Music and Religion in Popular Culture. (5) (Same as Religion, 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 contemporary efforts to end discrimination from evangelical to cross-over artists performing in mainstream. Credit for both courses M73 and M73T not allowed. P/NP or letter grading.


92. Private Instruction in Music. (2) Studio, one hour. Limited to Ethnomusicology majors. Private or semiprivate music instruction with distinguished community-based musicians. Arranged by students and approved by course instructor. May be repeated for credit without limitation. Letter grading.

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

Upper-Division Courses

C100. Audiovisual Archiving in 21st Century. (4) Seminar, three hours. Designed for Ethnomusicology majors. Examination of history, present state, and future of audiovisual archives, with specific focus on ethics, copyright, contracts, fieldwork, preservation, and access and issues related to technology, space, budgets, and staffing. Concurrently scheduled with course C200. P/NP or letter grading.

105. Music Business. (4) Lecture, four hours; outside study, eight hours. Fundamentals of administration of Ethnomusicology majors in public and private institutions. How music industry functions and how products are created, marketed, and consumed. Basic information on how to use technology to produce records and legal issues faced by musicians, students, and scholars who use music in their work. P/NP or letter grading.


106B. Contemporary North American Indian Music. (4) Lecture, three hours; discussion, one hour. Contemporary Native North American musical expressions, including urban styles (folk, country, rock), intertribal Indian musical genres (powwow), syncretic religious music, and traditional/historic Pan-Indian music. P/NP or letter grading.


M109. Women in Jazz. (4) (Same as African American Studies M109, Gender Studies M109, and Global Jazz Studies M109.) Lecture, four hours; discussion, one hour. Socio-cultural issues faced by female jazz musicians, and impacted 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 Global Jazz Studies M111.) Lecture, four hours. Music of Duke Ellington and his influence and far-reaching influence of his efforts. Ellington’s music, known as Ellingtonia, is one of largest and perhaps most important bodies of music ever produced in U.S. Covers many contributions of other artists who worked with Ellington, such as composer Billy Strayhorn and musicians Johnny Hodges, Count Basie, and Mercer Ellington. P/NP or letter grading.

CM112. 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 African American music in California. Concurrently scheduled with course CM212. P/NP or letter grading.

113. Music of Brazil. (4) Lecture, three hours. History of ethnic and art music in Brazil, with some reference to traditional antecedents. P/NP or letter grading.

M115. Musical Aesthetics in Los Angeles. (4) (Same as Chicana and Chicano Studies M115.) Lecture, three hours. Confronting aesthetics from classic perspective of view of art as an expression of cross-cultural basis of diverse musical contexts within vast multicultural metropolis of Los Angeles, with focus on various musical networks and specific experiences of Chicano/Latino, African American, American Indian, Asian, rock culture, Western art music tradition, and commercial music industry. P/NP or letter grading.

M116. Chicano/Latino Music in U.S. (5) (Same as Chicana and Chicano Studies M116.) Lecture, four hours; discussion, one hour. Historical and analytical examination of musical expression of Latino peoples who have inhabited present geographical boundaries of U.S. Covers many contributions of other artists. P/NP or letter grading.

117. American Popular Music. (4) Lecture, four hours; discussion, one hour. Survey of history and characteristics of American popular music and its relationship to American culture, with emphasis on 20th-century popular music and its major composers, including comparison between traditional pre-1950 popular music and trends in post-1950 popular music. P/NP or letter grading.

118. Feminist and Queer Music Studies. (4) Lecture, four hours. Examination of historical and stylistic development of rock from 1960s to present, with attention to its socio-cultural and political impact on American society and culture. P/NP or letter grading.

M119. Cultural History of Rap. (5) (Same as African American Studies M107 and Global Jazz Studies M111.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and hip-hop culture, with emphasis on musical and verbal qualities, philosophical and political ideologies, gender representation, and influences on cinema and popular culture. P/NP or letter grading.

M128. Exploration in Rhythms. (2) (Formerly numbered 126.) (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, hemisols, and polyrhythms. P/NP or Letter grading.

M130. Culture of Jazz Aesthetics. (4) (Same as Anthropology M158 and Global Jazz Studies M130.) Lecture, three hours. Recommended requisite: course 20A or 20B or 20C Anthropology 3 or 4. Aesthetics of jazz from point of view of art, its influence, blended jazz as art form in 20th century. Listening to and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical discussion of jazz art form with jazz musicians and ethnomusicologists combined with those interested in jazz as cultural tradition. P/NP or letter grading.
M131. Development of Latin Jazz. (4) (Same as 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, Ideologies, Nationalism, and Religion. Lecture, four hours; outside study, 12 hours. Limited to Ethnomusicology, Music, Musicology, Music History, and European Studies majors. European folk, popular, and classical music as practice through the lens of 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 Music 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 aesthetics, 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, 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, style, technique of 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 structure 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 the role 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, one hour; outside study. 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 an issue of global cultural policy worldwide; tensions among international ideals, nation-state nationalisms, regionalism, and ethnicity, and in-digeneity in creating intangible cultural heritage policies in different regions; U.S. government policies and influence on intangible cultural heritage policies and practices in other countries; roles of private individuals, community initiatives, and professional organizations in cultural preservation schemes; and related concept of sustainability. Concurrently scheduled with course C255. Letter grading.


C161. 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; historical development and influence issues. Concurrently scheduled with course C256A. 156B. Lecture, three hours; laboratory, two hours. Requisite: course C156A. Introduction to Chinese notation systems. Analysis of representative styles.


C159. Music on China’s Periphery. (4) Lecture, four hours; outside study, eight hours. Designed for under-graduate 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; historical development and influence issues. Concurrently scheduled with course C256A. Letter grading.

160. Survey of Music in Japan. (4) Lecture, four hours. Survey of main genres of Japanese traditional music, including Gagaku, Buddhist chant, Diva 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 limit. Letter grading.


162. Advanced Private Instruction in Music. (2) Studio, one hour; outside practice, five hours. Prepara- tion for Advanced Study, yearlong work through 91B or 91C. Limited to Ethnomusicology majors. Advanced private or semiprivate music instruction with distin- guished community-based musician, that must be arranged through music industry on way music is created, performed, listened to, evaluated. Enrolled in music industry, 162A-162Z. Limited to Ethnomusicology majors. Examination in composition using variety of Western and non-Western musical systems. Final project required. Letter grading.

168A-168F. Advanced World Music Specializations. (2-2) Activity, three hours; outside practice, three hours. Advanced performance of specializations in traditional vocal music, instrumental music, and dance. May be repeated for credit without limit. P/NP or letter grading.


181. Anthropology of Music. (4) Lecture, four hours. Designed for Ethnomusicology, Music History, and Anthropology majors. Cross-cultural examination of music in context of social behavior and how musical patterns reflect patterns exhibited in other cultural systems, including economic, religious, and social structure. P/NP or letter grading.

CM182. Music Industry. (4) (Same as Music CM182, Musicology CM186, and Music Industry M182.) Lecture, four hours; discussion; one hour; outside study; seven hours. Limited to Ethnomusicology, Music, and Music History majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical ap- proach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM288. Letter grading.


C184. Public Ethnomusicology. (4) Lecture, four hours; outside study, eight hours. Designed for Ethno- musicology majors. How music industry functions and how products are created, marketed, and con- sumed. Techniques of pure research, basic and theo- retical in nature, contrasted with those of applied re- search, practical and policy-oriented in approach. Concurrently scheduled with course C286. Letter grading.
Information Literacy and Research Skills. (1) Tutorial, one hour. Limited to Ethnomusicology majors. Designed to assist students with becoming information literate. How to locate, identify, and critically evaluate and use print and electronic information effectively and ethically.

Senior Recital or Project. (2, Tutorial) one hour. Limited to seniors. Final project for students who, with approval from their faculty advisers, perform one-hour recital or have their compositions performed in one-hour recital. Organization and arrangement of rehearsal schedule with appropriate accompaniment and preparation of program for performance. Grades are assigned in term recital if performance or composition is completed and performed. P/NP grading.

Special Courses in Ethnomusicology. (4) Lecture, four hours; outside study, eight hours. Selected topics in ethnomusicology. Consult Schedule of Classes for topics and instructors. May be repeated for credit. 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 readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Journal Club Seminars: Ethnomusicology. (2) Seminar, two hours; outside study, four hours. Limited to undergraduate students. Reading and discussion of writings on subjects in ethnomusicology. May be repeated for credit. P/NP or letter grading.

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.

World Music Teaching Practicum. (4) Seminar, two to 12 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.

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.

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 credit. Individual contract required. Letter grading.

Graduate Courses

Audiovisual Archiving in 21st Century. (4) Seminar, three hours. Designed for Ethnomusicology majors. Examination of history, present state, and future of audiovisual archives, with specific focus on ethics, copyright, contracts, fieldwork, preservation, and access and indexing technologies, space, budgets, and staffing. Concurrently scheduled with course C100. S/U or letter grading.

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.

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.


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.

Integrating Theory with Ethnography. (4) Seminar, three hours. Designed to show how theory and primary research interact with 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 fields, in tandem with theoretical writings that inform arguments of these books. Letter grading.


American Music in California. (4) (Same as American Studies 212A) Lecture, four hours. Historical and analytical examination of African American music in California, including history, migration patterns, and urbanism to determine the interplay between local and national issues on development of African American music in California. Concurrently scheduled with course CM112. S/U or letter grading.

Semimusicalogical Perspectives and Paradigms 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. Late 19th century to 1980s; 1950s to Present.

Ethnomusicalogical Methods I, 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 ethnomusicalogical fieldwork techniques and practices in ethnomusicology.

Balkan Music. (4) Seminar, three hours; outside study, nine hours. Major issues in study of Balkan music, including song text analysis, music instruments, dance music, rituals and customs, minorities, and ideology. S/U or letter grading.

European Musics: Politics, Identities, Nationalisms. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. European classical, popular, and world musics, with particular attention to way in which music mirrors, negotiates, and contests ideas about and practices of national and other forms of identity, ideas developed in other domains of discourse and practice such as philosophy, history, literature, art, and folklore. Examination of way musicians, ordinary people, and politicians have used music to affect political processes involved in contesting and resolving tensions created between and among these identity formations. Historical period coverage primarily from 19th and 20th centuries, with examples from all over Europe continuing.

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 problematic issues. May be repeated for credit. In Progress (233A, 233B) and letter (233C) grading.

Music of Africa. (4) Lecture, four hours; outside study, eight hours. Introduction to music of various African cultures and regions. Through readings, lectures, 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.

African Music. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Investigation of historical and cultural backdrops, musical styles, and cultures of a number of African musical traditions. S/U or letter grading.

Music of Arab World. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Comparative study of music of Iran and other related areas, including Turkey, in its historical and cultural contexts, sources on music theory and aesthetics, instruments, style, technique of improvisation, and contemporary practice. Concurrent participation in Near East perfor-
mance ensemble (course 91N or 916N) 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 north and south Indian classical music. Emphasis on music history and traditional theory and analysis of present-day forms, styles, techniques, and musical instruments. Concurrent participation in Indian performance group (course 91F) required. S/U or letter grading.

C250. Music and Politics in East Asia. (4) Lecture, four hours. Designed for graduate students. Political implications of musical groups and their impact on social and political change. Concurrent participation in one Indonesian performance group (course 91B or 91H) required. S/U or letter grading.

251. Music of Indonesia. (4) Lecture, three hours; outside study, nine hours. Requisite: course 20C. Emphasis on music and related performing arts of Java, Bali, and other Indonesian islands. Concurrent participation in one Indonesian performance group (course 91B or 91H) required. S/U or letter grading.


C255. Intangible Cultural Heritage Worldwide. (4) Lecture, three hours. Designed for ethnomusicology, music history, and world arts and culture 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 nationalisms, regionalism, ethnicity, and indigeneity in creating intangible cultural heritage policies in different settings; U.S. equivalents to intangible cultural heritage policies and practices in other countries; roles of private individuals, community initiative, and professional organizations in cultural policy making, 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 students. Survey of musics from China’s border regions and neighboring countries: techniques, statistics and important contextual issues related to traditional and modern styles from Mongolia, Uighurs of Xinjiang, Tibet, Tibet-Burman peoples, Himal and indigenous peoples of Taiwan. Concurrently scheduled with course C159. S/U or letter grading.

M261. Gender and Music in Cross-Cultural Perspective. (Same as Gender Studies M261.) Seminar, three hours. Designed to foster in-depth understanding of gender as concept and social construct. Topics range from ethnomusicology 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 aestheticization, style, ethnographic methods, 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 cities has shifted with the changing political and sociological issues in study of city as cultural entity that affects and is affected by music making. S/U or letter grading.

265. Religion and Music. (4) Seminar, three hours; outside study, nine hours. Cross-cultural examination of role of musical expression as spiritual medium and as artistic expression in world’s religions. S/U or letter grading.

266. Charles Seeger’s Life and Thought. (4) Seminar, three hours; outside study, nine hours. Charles Seeger’s (1886 to 1979) major writings and influence on three fields he helped to found (ethnomusicology, systematic musicology, historical musicology), as well as his major influence on music and American composition in 20th century. S/U or letter grading.

267. Music and Ecstasy. (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 aspiration. S/U or letter grading.

268. Modernity and Musical Experience. (4) Seminar, three hours; outside study, 10 hours. Limited to 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. Requisite: course 170. Selected topics in acoustics, including laboratory methodologies and practical applications. Topics include Western and non-Western musical instruments, 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. Study 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.

276. 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. Seminars: 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 ethnographic 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 as expressions of societies. Theory considered as science of music; its place between cultural values and artistic practice in different civilizations. S/U or letter grading.

286. Seminar: Chinese Ethnomusicology. (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.


C288. 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 way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music produced in classical culture and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM182. Letter grading.

290. 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.

292A-292Z. Seminars: Topics in Ethnomusicology. (4 each) Seminar, four hours. Designed for graduate students. Utilization of special interests and expertise of regular and visiting faculty; topics of current interest presently offered in ethnomusicology program. S/U or letter grading.

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

495A. Teaching Apprentice Practicum. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Ethnomusicology Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching ethnomusicology and systematic musicology at college level. May not be applied toward degree requirements. S/U grading.

495B. Teaching with Technology. (2) Seminar, three hours; outside study, three hours. Limited to graduate ethnomusicology students. Training in presentation, spreadsheet, web design, and digitization software, and its application in classroom and in preparation of electronic teaching portfolio. S/U grading.

596. Directed Individual Studies. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward MA minimum course requirements. S/U or letter grading.

597. Preparation for Master's Comprehensive Examination or PhD Qualifying Examinations. (2 or 4) Tutorial, to be arranged. May be repeated for credit. S/U grading.

598. Guidance of MA Thesis. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

599. Guidance of PhD Dissertation. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

**European Studies**

See International and Area Studies

**Family Medicine**

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Family Medicine

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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 curriculum and in the Primary Care College. All first-year students are assigned to work with a family medicine preceptor 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 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

**Upper-Division Course**

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

**Film, Television, and Digital Media**

School of Theater, Film, and Television

103 East Melnitz Building

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Film, Television, and Digital Media

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Rory M. Kelly, MFA

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Lecturers SOE

Harold L. Ackerman, MA, Emeritus

Mark McCarty, MA, Emeritus

Lecturers

Tim T. Albaugh, MFA

William J. Barinski

Sury Behar Parker, MFA

Christopher W. Borey, MFA
Visiting Assistant Professors
Tim Good
David Hoberman
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 work shopping individual projects. Group participation in the creation and production of each student’s project is core to the curriculum. Specific student learning objectives vary based on concentration area.

Film and Television BA

Capstone Major
The undergraduate Film and Television major encourages development of a personal vision that incorporates creative, practical, intellectual, and aesthetic values. Within the context of a liberal arts education, the program provides a broad background in the field and in the diversity of film and television practice, including courses in history and theory, critical thinking, animation, screenwriting, and the fundamentals of film, video, and television production.

Learning Outcomes
The Film and Television major has the following learning outcomes:

- 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
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.

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 undertaken 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 phenomena. P/NP or letter grading.

6A. History of American Motion Picture. (6) (Formerly numbered 108A.) 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 survey of television history from inception to present. Examination of interrelationships between program forms, industrial paradigms, social trends, and culture. Starting with television's hybrid origins in radio, theater, and film, contextualization, viewing, and discussion of key television 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 133L.) 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 reconstructing their own work. Screenings of films and selected film sequences in class and by assignment. P/NP or letter grading.

Upper-Division Courses

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 150L.) 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 create images that support and enhance story of film, achieve comprehension of principles of motion imaging photography through lectures, discussions, and screenings, developing skills of camera 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 interactions 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.

101A. Junior Symposium. (1) (Formerly numbered 100A.) Laboratory, three hours. Course 101A is enforced requisite to 102B, which is enforced requisite to 107C. 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. Course 102A is enforced requisite to 102B, which is enforced requisite to 102C. Limited to Film and Television majors. Structured forum in which seniors meet on regular basis to discuss curricular issues, meet with faculty members, and have exposure to array of guest speakers from within film and television industry. Letter grading.

106B. History of European Motion Picture. (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of European motion picture both as developing art form and as medium of mass communication. Letter grading.


Graduate Study

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.
107. Experimental Film. (6) Lecture/screenings, eight hours; discussion, one hour. Study and analysis of unconventional developments in motion pictures. P/NP or letter grading.

108. History of Documentary Film. (6) Lecture/screenings, eight hours; discussion, one hour. Critical approach to documentary film, with an emphasis on understanding the societal impact of this medium. Development of critical standards and examination of techniques of teaching and persuasion used in selected documentary, educational, and propaganda films. Letter grading.

109. Advanced Topics in Documentary: New Documentary Forms. (4) Lecture, three hours; discussion, one hour. Screenings, three hours. Examination of contemporary modes of representation and genres focusing on rise and diversification of nonfiction media forms since new millennium. From short form to series based, virtual reality to interactive, crowd sourced to animated, study of new documentary forms and platforms as situated within complex media environment. Exploration of theoretical models through which documentaries can be understood, question, and critically approached. Letter grading.

M111. Women and Film. (6) (Same as Gender Studies M111.) Lecture, eight hours; discussion, one hour. Historical issues and critical approaches to women and cinema that may include authorship, stardom, and male-dominated genre. In Hollywood cinema, alternative cinema, and independent cinema since silent era to present. Letter grading.

112. Film and Social Change. (8) 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 M114.) 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 representation of 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 Mexican Americans produced between 1908 and 1980. Examination of recent Chicano-produced films that subvert or signify on these genres. 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.

M124. Sex, Race, and Difference in Transnational Film. (6) (Same as Gender Studies M124.) Lecture, three hours; discussion, one hour. Drawing on feminist media studies, training of students in media literacy so they develop necessary skills to critically interrogate film as medium of communication and to appreciate how film provides lens to examine some of most critical issues of our time. Development of understanding of transnationality to examine how circulations of capital, labor, and commodities transact, render problematic, and sometimes reinforce national borders. Examination of role of film in both exemplifying and representing these conditions of transnationality. How films enable understanding of historical and contemporary relationships between mobility, coercion, and migration; colonialism and settler colonialism; gender and sexuality; cultural identity and diaspora; transnational conceptions of sexual desire and embodiment; immigration and religious difference; and criminalization of racial difference. P/NP or 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.

129. 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 production and utilization. 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 students. Examination of creative process in theater, film, and television with consideration of writing, direction, production, and performance. Overview of individual contribution to the art; 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 435. Not open to credit with students for course 33. Examination of screenwriting fundamentals: structure, character arc, theme, development, conflict, locale, theme, history of drama. Review of authors such as Aristotle. Concurrently scheduled with course C430. P/NP or letter grading.

134. Interactive Screenwriting Workshop. (4) Seminar, three hours; problems in film and television writing. P/NP or letter grading.

135A–135B. Advanced Screenwriting Workshops. (6–6–6) Laboratory, three hours. Concurrently scheduled with course C442. Course 135A is 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 Image and Visualization. (4) Lecture, three hours; laboratory, three hours. Introductory hands-on investigations of techniques of digital still imaging and aesthetics of digital imaging, in context of 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 styles, techniques of developing 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 potentials 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.

C145. Creative Authoring for World Wide Web. (4) Lecture, three hours; laboratory, three hours. Explorations of creative aspects of working with or as medium for personal/collective expression. Students produce Web works and serve them online. Contextualization of medium by looking at its history, emerging possibilities, and implications for authoring and audience responses. May be repeated once for credit. Concurrently scheduled with course C245. Letter grading.

146. Art and Practice of Motion Picture Producing. (4) Lecture, three hours; discussion, one hour. 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 analysis of films and television. Concurrently scheduled with course C446. 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 C247. Letter grading.

C148. Advanced Digital Media Workshop. (4) Laboratory, two hours; discussion, four hours. Designed for students with previous laboratory course experience to provide opportunity to create larger-scale digital projects with an emphasis on the production of interactive and video-music works. May be repeated once for credit. Concurrently scheduled with course C448. Letter grading.
151. Introduction to Experimental Filmmaking. (4) Lecture, three hours; laboratory, to be arranged. Limited to Film and Television majors. Techniques of image manipulation, design, and art direction. Production and completion of exercise (no longer than three minutes) using 16mm 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 various contexts through lecture, 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 scene given to them by instructor. Concurrently scheduled with course C454B. Letter grading.

155. Introduction to Digital Media and Tools. (4) Lecture, three hours; one discussion hour. Enforced requisite: course 101A. Limited to Film and Television majors. Instruction and exercises in basic concepts and software of virtual production environments and digital postproduction tools. Letter grading.

C157. Lighting for Film and Television. (4) Lecture, two hours; laboratory, six hours. Requisite: course 52. Limited to Film and Television majors. Lectures, supervised exercises on stage or in exterior, screenings of scenes, and discussions aimed at learning to master lighting to create appropriate mood or atmosphere of premeditated scene recorded on film or through electronic system. May be repeated twice for credit. Concurrently scheduled with course C417. Letter grading.

C158. Digital Workflow. (2 to 4) Lecture, three hours; laboratory, two hours. Requisites: courses 52, 185. Limited to departmental majors. Through discussions, demonstrations, outside speakers, and laboratory assignments, demystification of ever-changing world of digital workflow. Students plan, schedule, and budget their overall workflow in preproduction. May be repeated once for credit. Concurrently scheduled with course C454C. Letter grading.

163. Directing Cameras. (4) Laboratory, three hours. Enforced requisite: course 101A. Limited to Film and Television majors. Introduction to expressive potential of image within and beyond narrative from directorial perspective. Experiments with working methodologies that stimulate visual creativity and positioning image as fundamental element of cinematic expression. Letter grading.

164. Directing Actors. (4) Laboratory; four hours. Exercises in analysis of script and character for purpose of directing actors. Emphasis on eliciting best possible performance from actors. May be repeated twice for credit. P/NP or letter grading.

C165. Creative Location Film Production. (8) Lecture, four hours; discussion, four hours; laboratory, to be arranged. Limited to directing or producer’s program students. Problems of location, production, directing, and cinematography in various practical locations. Practical application of solving problems and communication within limitations of production experience. Concurrently scheduled with course C465. Letter grading.

C175A–C175B. Undergraduate Film Production. (8 to 10) Limited to Film and Television majors. 175A. Lecture, four hours; laboratory, eight hours. Requisite: course 185. Course 175A is requisite to 175B. Writing, preproduction, and production for short film. Letter grading. 175B. Lecture, three hours; laboratory, eight hours. Enforced requisite: course 175A. Completion of postproduction (editing, creation of sound tracks) for short film begun in course 175A. P/NP or letter grading.

M177. Film and Television Acting Workshop. (2) (Same as Theater M178.) Laboratory, four hours. Workshop providing opportunities for students to rehearse and perform. Three different production styles to which performers may need to adjust are (1) preproduction rehearsals with director, (2) single-camera experience, and (3) multiple-camera experience. May be repeated twice for credit. Letter grading.

178. Film and Television Production Laboratory. (2 or 4) Laboratory, to be arranged. Supervised laboratory experience in various aspects of film and television production. 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, two hours. Fundamentals of animation through exercises and preparation of short animated film. Students create 10-second film in one of traditional techniques (non-computer), with music and/or sound effects. Offered in summer only. Letter grading.

180B. Writing for Animation. (4) Lecture, two hours; laboratory, six hours. Analysis and practice of effective visual storytelling through creation of three production storyboards. Offered in summer only. Letter grading.

180C. Stop Motion Fundamentals Workshop. (3) Lecture, six hours; laboratory, six hours. Exercises designed to teach basic techniques, sign principles of motion and timing. Use of range of materials, building animation performances in split-second increments arranged to give illusion of movement. Elaboration 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.

C181A. Introduction to Animation. (5) (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 C481A. P/NP or letter grading.

C181B. Writing for Animation. (4 or 8) (Formerly numbered 181B.) Lecture, six hours; studio, to be arranged. Requisite: course C181A or consent of instructor. Research and practice in creative writing and planning for animated film. May be repeated for maximum of 16 units. Concurrently scheduled with course C481B. P/NP or letter grading.

C181C. Animation Workshop. (4 or 8) (Formerly numbered 181C.) Lecture, three hours; preparation: storyboard at first class meeting. Requisite: course C181A. Organization and integration of various creative arts used in animation to form complete study of selected topic. Maximum of 16 units. Concurrently scheduled with course C481C. P/NP or letter grading.

183A. Producing I: Film and Television Development. (4) Lecture, three hours; discussion, one hour. Open to nonmajors. Critical analysis of contemporary entertainment industries and practical approach to understanding and implementing producer's role in developing scripts for feature film and television scripts. Through scholarly and trade journal readings, in-class discussions, script analysis, and select guest speakers, exposure to various entities that comprise feature film and television 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.

183B. 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 film and television programs 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. Critical analysis of production of feature films across multiple exhibition platforms and subsequent reception and consumption by audiences. Focus on engagement between distributor, exhibitor, audience and various aspects of the 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 operations of networks and cable companies, independent developments, marketing, and network branding from 1947 to present. Letter grading.

185. Intermediate Undergraduate Film Production. (6) Laboratory, six hours. Requisites: courses 52, 154, 155, 156. 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. Requisite: course 185. Course 186A is requisite to 186B, which is requisite to 186C. Introductory viewing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Completion of series of exercises from conceptualization through postproduction, culminating in production of short documentary. Concurrently scheduled with course C403A. Letter grading.

C186B. Advanced Documentary Workshop. (4) (Formerly numbered 186B.) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. 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. Requisite: course C186B. Advanced viewing and discussion of selected documentaries and instruction in video 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.

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.
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 for honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

194. Internship Seminars: 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.

198. Directed Research or Senior Project in Film, Television, and Digital Media. (2 to 8) Tutorial, three hours. Limited to senior Film and Television majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or comprehensive essay on preapproved topic derived from study and engagement with and expansion on internship experience. Common business practices and expansion of critical understanding of industry at large. May be repeated for credit. Letter grading.

195. Corporate Internships in Film, Television, and Digital Media. (4) 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. (6) 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-ecological 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 processes, as well as business, labor, and industrial phenomena, as basis for individual student research projects. Letter grading.

201B. Seminar: Media Industries and Cultures of Production—Transmedia. (6) Seminar, three hours; film screenings, three hours. Requisite: course 201A. Examination of contemporary production research and transmedia practices, including innovations in marketing, licensing, distribution, industrial and collaborative processes, and the evolution of 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 research 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; readings, four hours. Exploration of various scholarly traditions and methods (ethnographic, sociological, political-economic, geographic) that have been used to study film and television production processes, as well as business, labor, and industrial phenomena, as basis for individual student research projects. 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 films great and distinct art form. Exploration of role of visual style in narrative filmmaking. Attempt to understand some ways it can operate. Letter grading.

205. Seminar: European Film History. (6) Seminar, three hours; film screenings, four to six hours. Advanced seminar for graduate students. Study of key developments in European cinema and television over long-term period of European cinemas and movements. Topics may include Italian neorealism, French film of 1930s, French New Wave, classic film, Weimar cinema, and Soviet silent cinema. Letter grading.

206A. Seminar: Currents in Film History. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of major periods of European cinemas and movements. Topics may include Italian neorealism, French film of 1930s, French New Wave, classic film, Weimar cinema, and Soviet silent cinema. Letter grading.

206B. Seminar: Selected Topics in American Film History. (6) Seminar, three hours; film screenings, three hours. Seminar, three hours with focus on specific topic or period in American film history. S/U or letter grading.

206C. Seminar: American Film History. (6) Seminar, three hours; film screenings, four hours. Introduction to the theoretical 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 its transition to sound cinema in 1928-1930. Films discussed in terms of genre, national cinema, formal developments, and directors. Readings on film historical and theoretical issues. Letter grading.

207. Seminar: Film Authorship. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of film authorship, as function and methods of writing film and television history. S/U or 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 Armi, Eisenstein, Bazin, Kra, cauer, et al. Letter grading.

208C. Seminar: Contemporary Film Theory. (6) Seminar, three hours; film screenings, four to six hours. Advanced seminar for graduate students. Study of recent films, methods and aims of theoretical perspectives on contemporary cinema. S/U or letter grading.

209A. Seminar: Documentary Film. (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.

209B. Seminar: Documentary Film. (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.

209C. Seminar: Documentary Film. (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.

209D. Seminar: Animated Film. (6) Seminar, three hours; film screenings, three hours. Designed for graduate students. Critical study of animated film: its historical development, style, use, and relation to contemporary cinema. S/U or letter grading.

211A. Seminar: Animation. (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: History of Film. (6) Seminar, three hours; film screenings, three hours. Examination of the role of history in 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 of ideas among graduate students and cutting-edge ideas in film and television. Letter 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 courses for MA coursework. Letter grading.

214. Seminar: Theory and Method. (6) Seminar, three hours. Limited to Film and Television PhD candidates. Examination of major modes of theoretical re- flection on bear on film, through study of central texts of such traditions as phenomenology, auteurism, semiotics, psychoanalysis, sociology, etc. S/U or letter grading.

215. 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 literacy, theories that mapped relations of film or television texts to group of texts to latter approaches from within material, social, and industrial contexts from whish media texts emerge. Letter grading.

216. Film, Costuming, and Set Design. (6) Seminar, three hours; film screenings, three hours. Exploration of integration of costume design into filmmaking process and illumination of work required to bring char-acters 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 the 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 His- tory. (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 inter- national television. Letter grading.

218. Seminar: Culture, Media, and Society. (6) Seminar, three hours; screenings/discussion, four hours. Emphasis on discourse of other(s). Thematiza- tion of non-Western or non-Westernizing cinema in terms of 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 main- stream critical discourse. Letter grading.

219. Seminar: Film and Society. (6) Seminar, three hours; screenings, four hours. Critical survey of film and society. Designed for graduate students. Study of ways film affects and is affected by social behavior, belief, and value systems; considered in relation to role of media in society. May be repeated once for credit. S/U or letter grading.

220. Seminar: Television and Society. (6) Seminar, 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; considered in relation to role of media in society. 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. Study of ways film affects and is affected by social behavior, belief, and value systems; considered in relation to role of media in society. May be repeated once for credit. S/U or letter grading.

222. Seminar: Film Genres. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of patterns, styles, and themes of major film genres. Letter grading.

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of such genres as Western, gangster, war, science fic-
tion, 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, psy-
chological, and physiological approaches to perception and its conse-
quences. Required of students interested in filmmaking and criticism.
S/U or letter grading.

224. Computer Applications for Film Study. (6) Seminar, three hours; laboratory, three hours. Survey of computer applications relevant to film study, principally computer-vidoesis 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 digital media and investigations of emerging videogame field. S/U or letter grading.

CM229. Contemporary Topics in Theater, Film, and Tele-
vision. (Same as Theater CM229). 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 emphasis on writing, directing, producing, and performance. Overview of individual contributions in collaborative effort; examination of distinctiveness and interrelationships among these arts. Individual units may be taken for letter grades or directed study.

C242. Digital Imagery and Visualization. (4) Lecture, three hours; laboratory, three hours. Introductory hands-on investigation of techniques of digital still im-
age and aesthetics of digital image, in context of ex-
amining dynamics of cultural constructions and visual codes. Short projects produce several digital image visualizations. May be repeated once for credit. Concurrently scheduled with course CM129. S/U or letter grading.

C243. Moving Digital Image. (4) Lecture, three hours; laboratory, three hours. Investigation of dif-
f erent ways of creating and manipulating linear moving images (digital video) on desktop computers, exploring both creative and theoretical aspects of this production method and students concerns and the pos-
tion of short projects. Concurrently scheduled with course C143. Letter grading.

C244. Interactive Multimedia Authoring. (4) Lecture, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Exploration of methodologies and tools for media integration, inter-
face design, and interactive audiovisual construction. Students conceive, produce, and master individual inter-
tactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C144. Letter grading.

C245. Creative Authoring for World Wide Web. (4) Lecture, three hours; laboratory, three hours. Explora-
tion of creative aspects of World Wide Web as a means for personal/collective expression. Students produce Web pages and serve them online. Contextualization of medium by looking at its history, em-
bodied ideology, and sociopolitical consequences. May be repeated once for credit. Concurrently scheduled with course C145. Letter grading.

246. Seminar: Issues in Electronic Culture. (6) Seminar, three hours; laboratory, three hours. Critical studies seminar with major hands-on laboratory compo-
ponent that explores impact of new digital technolo-
gies on contemporary culture and aesthetics. Stu-
dents do laboratory projects using visualization, image manipulation tools, and Internet authoring tools for letter grades.

247. Planning Independent Feature Production. (4) Lecture, three hours; laboratory, one hour. Analysis of procedure, problems, and budgets in planning fea-
ture-length script for film and television production, with emphasis on role of producer and creative orga-
nizational techniques of producing. Concurrently scheduled with course C147. Letter grading.

C248. Advanced Digital Media Workgroup. (4) Lab-
oratory, two hours; discussion, four hours. Designed for graduate students. Course requires one hour experi-
ence to provide opportunity to create larger-scale dig-
tal media works with advanced software tools and techniques in small process-oriented, creative work-
shop environment. May be repeated twice for credit. Concurrently scheduled with course C148. Letter grading.

270. Seminar: Film Criticism. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Focus on aesthetic 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.

271. Seminar: Television Criticism. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Analysis of major forms of tele-
vision production and criticism has it elicited. May be repeated once for credit. S/U or letter grading.

273. Seminar: Television and Film Production. (6) Seminar, three hours; screenings, four to six hours. Designed for graduate students. Focus on aesthetic and critical questions of development and production of television and film studies and investigation of emerging of digital image. S/U or letter grading.

276. 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.


282A. 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 pitch for evaluation by class, instructor, and guests. Letter grading.

282B. TV Development 2. (4) Seminar, three hours. Advanced analysis of television scripted shows and contemporary industry production and business prac-
tices. Continued development of original show con-
cepts and series proposals for review and feedback by class, instructor, and guests. Letter grading.

283A. Writing One-Hour Drama Speculative Epi-
sode. (4) Seminar, three hours. Basic tenets and ana-
lysis of television drama shows and contemporary in-
dustry production and practices. Students write speculative (spec) episode for existing one-hour drama series. Letter grading.

284B. Writing One-Hour Drama Pilot and Series Bi-
ble. (8) Seminar, three hours. Requisite: course 283A. Examination of basics of drama pilot format, style, and form, and learning of the principles that underlie net-
work 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.

284C. Running Television Drama Room. (4) Sem-
in, three hours. Enforced requisite: course 284A. Practical knowledge about skills necessary to be
writer/executive producer of one-hour drama show. Focus on community building, collaboration, and leadership skills needed to successfully function in writers’ room, as well as breaking stories, writing, and rewriting television scripts. Letter grading.

287A. Introduction to Art and Business of Produc-
ing I. (4) Seminar, three hours. Introduction for first-
year producers program students to producer’s role in
navigating unique dynamic between art and com-
merce in entertainment industry. Overview of devel-
opment, production, and distribution of feature films for worldwide theatrical market, including identifying material, attracting elements, and understanding ba-
sics of studio and independent financing and distribu-
tion. S/U or letter grading.

287B. Introduction to Art and Business of Producing II. (4) Seminar, three hours. Requisite: course 287A. Builds on principles taught in course 287A and prepares students to continue study of development, pro-
duction, and distribution of feature films for worldwide theatrical market, including identifying material, at-\ttracting talent elements, and understanding basics of studio and independent financing and distribution. Minimum of two unproduced screenplays to be pre-
seated for review by class and instructor to begin ide-
ifying potential project thesis projects. S/U or letter grading.

287C. Introduction to Art and Business of Producing III. (4) Seminar, three hours. Requisites: courses 287A, 287B. Builds on principles taught in courses 287A and 287B. Presentation of screenplays prepared in course 287B forward to class and in-
structor with goal of isolating and identifying primary and secondary thesis projects. Discussions of script analysis and creating set of viable development notes for original projects. Course for use by students for original projects and pitching of primary projects to panel of industry executives for further feedback. S/U or letter grading.

288A-288B. Feature Film Development I, II. (4-4) Lecture, three hours. Course 288A is requisite to 288B. Practical hands-on approach to understanding and implementing producer’s role in development of feature film. Focus on screenwriting 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 production, including producer, writer/executive producer of one-hour drama show. Letter grading.

288A. Basic introduction to story and explo-
ration of proper technique for evaluating screenplays through writing of coverage. 288B. Deeper evaluation of screenplay through writing of treatment.

289A. Current Business Practices in Film and Tele-
vision. (4) Discussion, three hours. Requisite: course C247. Designed for graduate students. Examination of current status of financing/production/distribution agreements, union agreements, music, copyright, etc., necessary to understand film and television indus-
try. S/U or letter grading.

289B. Strategy. (4) Lecture, three hours. Course 289A is not requisite to 289B. Examination of busi-
ness realities of industry, with focus on techniques for analyzing behavior, making strategic decisions, and overcoming obstacles to achieving results as pro-
ducer, writer, or director. Assignments designed to as-
sist 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. Lectures and discussions on alternative strategies for 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 mock story meetings with instructor, 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 with instructor, students, and various industry guests. Development of one story idea for thesis project. 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 market 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.

291A. Studios versus Independents: Navigation of the Industry. (4) Lecture, three hours. Tools necessary for producer to navigate Hollywood entertainment industry. Topics discussed through lectures and guest speakers include impact of difficulty to navigate relationship between art and commerce in craft of filmmaking, rapid advance of new technologies, diversity of finance capital for emerging producing entities, and what future may hold for truly independent filmmaker. 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. Written assignment on 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 overview 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 intermediated areas of production, marketing, business affairs, media, and impact of international 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-producing team and role of their television shows on network and cable television. Development of television series concepts and strategies for their development, production, and business model. S/U or letter grading.

292D. Special Studies in Film and Television. (2 to 6) Seminar, three hours; film screenings, 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 placement as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Film Image Design Laboratory. (4) Lecture, three hours; laboratory, 1 hour. Continuation of study of film lighting and cinematography. Emphasis of nonnarrative film imagery. One-minute experiments in relation of meaning to technique, including manipulation of optics, photochemistry, elements of electronic processes, and display of time and motion. May be repeated once for credit. S/U or letter grading.

400B. Introduction to Cinematography. (2) Lecture, three hours; laboratory, 1 hour. 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 grade.

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 creation of moving image arts. Unifying theory and practice, presentation of approach to viewing great films of past that empowers filmmakers to use sound and images to tell original stories in present. Focus on strategic decision making in areas of writing, design, cinematography, editing, sound, and performance to enable filmmakers to discover their own personal style for telling stories. Letter grade.

402A–402B. Advanced Narrative Directing Workshop. (4 or 6–8) Limited to nine graduate film and television students. Production of 10- to 15-minute fiction film or project. Letter grading. 402A. Laboratories, six to 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. Laboratories, 12 hours; fieldwork to be arranged. Requisite: course 402A. In second term students must complete photography on location and/or in studio.


C403A–C403B–C403C. Advanced Documentary Workshops. (4 to 8 each) (Formerly numbered 403A– 403B–403C.) 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, edit, and produce projects to completion. May be repeated twice for credit. 403B. Seminar, three hours; course 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 techniques. 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, 410A. 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-
ects in first term and work as crew for each other in rotating assignments. In second term students must complete postproduction of their projects. S/U or letter grading.

404C. Advanced Abstract/Experimental Media Workshop. (4) Lecture, three hours; laboratory, two 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. Letter grading.

405. Digital Image and Manipulation on Set and Post. (4) Lecture, two hours; laboratory, two hours. Requisite: course 410B. Students achieve greater understanding and command of tools and techniques of color correction in digital cinematography (both on set and in post production) through lectures, discussions, workshops, and screenings. Increases student's appreciation and skill set in art of digital image manipulation in cinematography. May be repeated once for credit. Letter grading.

407. Video Documentary Workshop. (8) Laboratory, 12 hours. Limited to graduate film and television students. Exploration of documentary video, including screening and discussion of avant-garde and traditional work that explorescomplexity of process, emphasizing balance and collaboration essential to both directing and photography in its varied technical, production, and creative aspects. Letter grading.

408A–408B. Avid Editing. (4–4) Studio, four hours; laboratory, to be arranged. Individual instruction in Avid nonlinear editing system. S/U or letter grading. 408A. Avid Editing 1; 408B. Avid Editing 2.

409. Directing Actors for Camera Workshop. (4) Workshop, six hours; laboratory, to be arranged; laboratory preparation, two to four hours. Limited to MFA production program students. Team-taught with five weeks designed to give director/actor/camera techniques, and five weeks to offer basic strategies to elicit good performances from actors. Emphasis on problems faced when directing actors for film. S/U or letter grading.

410A. Symposium. (2) Seminar, three hours. Limited to and required of first-year MFA production program students. Exploration of principal concepts of film and television production within context of preproduction, production, and postproduction, providing forum for synthesis of knowledge gained in various first-year technical craft courses. Exploration of strategies for learning production within academic environment. May be repeated for credit. Letter grading.

410B. Contemporary Directing. (3) Seminar, three hours. Limited to and required of first-year MFA production program students. Production workshop designed to give hands-on experience in all aspects of film production (tools and practical use) as each student writes/directs edits six-minute film. May be repeated for credit. Letter grading.

410C. Postproduction. (2) Seminar, three hours. Limited to and required of first-year MFA production program students. Production workshop designed to give hands-on experience in all aspects of film production (tools and practical use) as each student writes/directs edits six-minute film. May be repeated for credit. Letter grading.


411. 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 soundstage and at exterior locations that explore complexity of process, emphasizing collaboration and collaboration essential to both directing and photography in its varied technical, production, and creative aspects. Letter grading.

418. Advanced Cinematography. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisites: courses 417, 418. Limited to graduate film and television students. Advanced study of principles of cinematography, with emphasis on exposure, lighting, and selection of film, camera, and lenses. S/U or letter grading.

420. Digital Cinematography. (4) Lecture, three hours; laboratory, three hours. Advanced study of principles of digital cinematography, with emphasis on electronic exposure control, lighting, formats, cameras, and lenses. Concurrently scheduled with course C120. Letter grading.


423B. Advanced Direction of Actors for Film and Television. (4) Studio laboratory, six hours. Requisite: course 423A. Limited to graduate film and television students. Advanced study and practice of directing actors in film and television productions. Emphasis on immediately enhancing communication between director and actor on set in order to maintain continuity from shot to shot. S/U or letter grading.

424. Advanced Aural Production for Film and Television. (4) Lecture, two hours; laboratory. Preparation: course 241A. Limited to and required of first-year MFA production program students. Production workshop designed to give hands-on experience in all aspects of film production (tools and practical use) as each student writes/directs edits six-minute film. May be repeated for credit. Letter grading.

430. Screenwriting Fundamentals. (2) Lecture, one hour. Corequisite for graduate students enrolled in course 431. Examination of screenwriting fundamentals: structure, character and scene development, conflict, locale, theme, history of drama. Review of authors such as Aristotle. Concurrently scheduled with course C132. S/U or letter grading.

431. Introduction to Film and Television Screenwriting. (4) Lecture, three hours. Limited to graduate film and television students. Introductory course in problems of film and television screenwriting. S/U or letter grading.

433. Writing Short Screenplays. (4) Lecture, three hours. Limited to and required of first-year MFA production program students. Preparation, development and writing of six-minute dramatic film script to be produced in courses 410A, 410B, 410C. 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 project. Letter grading.

436. Advanced Storytelling Tools for Screenwriters: Study and Practice. (4) Lecture, three hours. Recommended prerequisite: course C430 or 431. In-depth analysis of different forms of script writing; on writing script for digital media; and the digital tools that enable the storyteller to convey the story. Emphasis on written work. Letter grading.

437. Adaptation for Screen. (3) 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.


452C. Digital Audio Postproduction. (4) Lecture, three hours; laboratory, three hours. Limited to Production MFA students. Technical and aesthetic aspects of postproduction sound recording, editing, and re-recording for film and television. S/U or letter grading.

453. Postproduction Sound Design. (2–4) Lecture, three hours. Designed to give film students insight into world of postproduction sound and to provide knowledge and tools necessary to complete production of their projects. Exploration 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 editing and all audio 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.

454B. Advanced Film Editing. (4) Lecture, three hours; laboratory, one hour. Preparation: submission of rough cut of existing project or proposal to edit work of another director. Limited to film and television students. Postproduction 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 C158C. Letter grading.

455. Postproduction Sound Design. (2–4) Lecture, three hours. Designed to give film students insight into world of postproduction sound and to provide knowledge and tools necessary to complete production of their projects. Exploration 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 editing and all audio 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.


465. Digital Audio Postproduction. (4) Lecture, three hours; laboratory, three hours. Limited to and required of first-year MFA production program students. Exploration of documentary video, including screening and discussion of avant-garde and traditional work that explores complexity of process, emphasizing balance and collaboration essential to both directing and photography in its varied technical, production, and creative aspects. Letter grading.

462C. Digital Audio Postproduction. (4) Lecture, three hours; laboratory, three hours. Limited to and required of first-year MFA production program students. Exploration of documentary video, including screening and discussion of avant-garde and traditional work that explores complexity of process, emphasizing balance and collaboration essential to both directing and photography in its varied technical, production, and creative aspects. Letter grading.

463. Advanced Aural Production for Film and Television. (4) Lecture, two hours; laboratory. Preparation: course 241A. Limited to and required of first-year MFA production program students. Production workshop designed to give hands-on experience in all aspects of film production (tools and practical use) as each student writes/directs edits six-minute film. May be repeated for credit. 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

Food Studies for Capstone. (4) Seminar, fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning (CCL). Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator must sign the contract. May be repeated for credit with consent of Center for Community Learning. Individual contract with site supervisor, CCL coordinator, and faculty sponsor required. P/NP or letter grading.

195CE. Community and Corporate Internships in Food Studies (4). Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning (CCL). Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator must sign the contract. May be repeated for credit with consent of Center for Community Learning. Individual contract with site supervisor, CCL coordinator, and faculty sponsor required. P/NP or letter grading.

199. 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.

199HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

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

Upper-Division Courses

M132. Food Cultures and Food Politics. (5) Same as English M118F and Society and Genetics M132.) Lecture, four hours; discussion, one hour (when scheduled). Requisite: English Composition 3. 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.

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 access and equity issues related to food chain in Los Angeles. Exploration of social justice issues faced by residents of lower-income communities. Reading of research from multiple disciplines, 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 faculty mentor. May be repeated for credit. Individual contract required. P/NP or letter grading.

187. Special Topics in Food Studies. (4) Lecture, three hours. Variable topics in one area within food studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to 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. Directed Research or Senior Project in Food Studies. (4) Tutorial, to be arranged. Limited to juniors/seniors. Directed research project in food studies under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

FOREIGN LITERATURE IN TRANSLATION

Scope and Objectives

The following courses, offered in the departments of language and literature, do not require reading knowledge of any foreign language.

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)

150. Survey of Armenian Literature in English

C152. Modern Armenian Drama as Vehicle for Social Critique

C153. Art, Politics, and Nationalism in Modern Armenian Literature
Asian (Asian Languages and Cultures)
151. Buddhist Literature in Translation

Asian American Studies (Asian American Studies)
M173. Topics in Vietnamese Cinema and/or Literature

Central and East European Studies (Slavic, East European, and Eurasian Languages and Cultures)
125. Intervar Central European Prose
126. Coldvar Central European Culture

Chinese (Asian Languages and Cultures)
70, 70W. Classics of Chinese Literature
131. World Sinopohne Literature: Theories and Texts
C150A. Lyrical Traditions
C150B. Chinese Literature in Translation: Traditional Narrative and Fiction
151. Chinese Literature in Translation: Modern Literature
152. Topics in Contemporary Chinese Literature and Culture
M153. Chinese Immigrant Literature and Film

Classics (Classics)
40W. Reading Greek Literature: Writing-Intensive
41W. Reading Roman Literature: Writing-Intensive
60. Fantastic Journey: Antiquity and Beyond
137. Ancient Lives: Art of Biography
140. Topics in History of Greek Literature
141. Topics in History of Latin Literature
142. Ancient Epic
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
167. French and Francophone Intellectual History in Translation
171. Medieval Flix
172. Francophone Cinema and Literature in Translation
191A. Topics in Francophone Cultures in Translation

German (Germanic Languages)
50A-50B. Great Works 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, Heese, 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
150A-150B. Survey of Persian Literature in English

Italian (Italian)
42A-42B-42C. Italian 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
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
M158. Women, Gender, and Sexuality in Italian Culture
230A-230B. Folk Tradition in Italian Literature
260A. Alternative Perspectives in Italian Culture: Studies of Folk Tradition in Italian Literature
260B. Women in Italian Culture
260C. Studies in Italian Cinema

Japanese (Asian Languages and Cultures)
70s. Images of Japan: Literature and Film
75. Anime
C150. Topics in Japanese Literature and Philosophy
151. Japanese Literature in Translation: Modern
154. Postwar Japanese Culture through Literature
M156. Literature and Technology
157. Classical Japanese Drama: Great Tradition
158. Love in Modern Japan
170. Japanese Tales of Supernatural
172. Fiction and Plays of Floating World
174. Classical Japanese Poetry

Jewish Studies (Near Eastern Languages and Cultures)
M150A-150B. Hebrew Literature in English
M151A-151B. Modern Jewish Literature in English

Korean (Asian Languages and Cultures)
150. Korean Literature in Translation: Classical
C151. Korean Literature in Translation: Modern
154. Contemporary Korean Culture through Literature

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
141A. Literature and Film in Portuguese
142C. Travel Narratives, Testimony, Autobiography

Romanian (Slavic, East European, and Eurasian Languages and Cultures)
152. Survey of Romanian Literature

Russian (Slavic, East European, and Eurasian Languages and Cultures)
25, 25W. Russian Novel in Translation
30. Russian Literature and World Cinema
M118. History of Russia, Origins to Rise of Muscovy
119. Golden Age and Great Realists
120. Literature and Revolution
121. Russian Pop Culture
C124C-C124T. Studies in Russian Literature
125. Russian Novel in Its European Setting
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
C145A. Henrik Ibsen
C145B. Knut Hamsun
C146A. August Strindberg
147A. Hans Christian Andersen
C147B. Søren 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
C171. Introduction to Scandinavian Folklore
172A. Nordic Folk and Fairy Tales
FRENCH AND FRANCOPHONE STUDIES

College of Letters and Science

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French and Francophone Studies
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Scope and Objectives

The Department of French and Francophone Studies is a major West Coast center for the study of French. In recent decades French critical thought has maintained a dominant position in the Western world. The department seeks to give its students not only a background in the various fields of French and Francophone studies, but also opportunity to relate literary, linguistic, and cultural study to examination of the critical intellectual questions of our time.

The undergraduate lower-division program is designed to provide students with practical competence in French after one year and thorough basic knowledge of the language after two years.

The undergraduate upper-division program is chiefly devoted to perfecting linguistic skills and to the study of French and Francophone culture and literature. Courses in linguistics and business French are also offered. Students graduating with a Bachelor of Arts in French should be fully fluent in French and possess a thorough background in French and Francophone literature and culture. Both Bachelor of Arts degrees lead to graduate studies in French.

The graduate program offers both MA and PhD degrees and comprises training in the various fields of French and Francophone culture, literature, and thought, as well as in literary criticism, analysis, and theory. A number of courses in linguistics and stylistics are also offered.

Undergraduate Study

If students have taken French elsewhere, they must take a placement test administered by the department. Depending on the results of the placement test or with recommendation of an instructor, they may be permitted to enroll in a course of study at a more advanced level.

Requisites to all upper-division courses taken in partial fulfillment of the French majors are French 6, 12, or equivalent. Courses 105 through 109 are not sequential and may be taken in any order, provided the requisites for each course are fulfilled.

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in French grammar and/or composition.

The French major is a designated capstone major. Students are required to complete a capstone seminar that is thematically devised to reflect current trends in the discipline. Through the capstone experience, students work closely with a faculty member on a focused topic of research. They engage in presentations and weekly discussions and write a research paper demonstrating language proficiency, critical and creative thinking, analytical skills, and a cultural perspective.

French BA

Capstone Major

Learning Outcomes

The French major has the following learning outcomes:

- Demonstrated written and oral mastery of the French language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate primary sources
- Conception and execution of a project that identifies and engages with a specialized topic
- Acquisition of working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

Preparation for the Major

Required: French 1, 2, 3, 4, 5, 6, 12, or equivalent. Students normally take course 6 before undertaking course 12. Students who receive a grade of A in course 5 may enroll in course 12 concurrently with course 6, with consent of the instructor.

Transfer Students

Transfer applicants to the French major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of French and one French literature course.

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

The Major

Two plans are offered by the department:

Plan I: French/Francophone Studies in Literature and Culture

Required: French 100, 101, two courses from 114A, 114B, and 114C, one senior capstone seminar (191B), and six 4-unit courses in French and Francophone literature and/or culture selected from upper-division offerings in the department in language, civilization, literature, or the arts. One upper-division elective course from outside the department may be substituted in the major program with consent of the undergraduate adviser. Each course must be taken for a letter grade.

Plan II: Interdisciplinary French/Francophone Studies

Required: French 100, 101, one course from 114A, 114B, or 114C, one senior capstone seminar (191B), four upper-division elective courses in French and Francophone studies, and three upper-division elective courses in fields relevant to French and Francophone studies to be selected from outside the department in consultation with the undergraduate adviser. Each course must be taken for a letter grade.
Plan II, with emphasis on French and Francophone culture, is a core program in French allowing for individual selection of relevant courses in related fields such as gender studies, humanities, linguistics, and social sciences. It is strongly advised that students who intend to pursue advanced degrees begin preparation for the language requirements at the undergraduate level.

If students’ knowledge of French exceeds the preparation usually received in courses preparing for the major and if they demonstrate the requisite attainment in French 100 or 101, they may substitute for those courses in grammar and composition an equivalent number of upper-division courses in the French and Francophone Studies Department in consultation with an adviser. All prospective French majors who are native or quasi-native speakers of French must see the undergraduate adviser before beginning upper-division work in the major.

All majors must complete a minimum of nine courses of appropriate upper-division work in the UCLA French and Francophone Studies Department. Freshmen and sophomores may take up to two courses taught in English, selected from French 164 through 167, in fulfillment of major requirements (if taken in the junior or senior year, these courses count as electives). A maximum of 8 units of course 199 may be applied toward the elective requirements for the major if approved in advance by the undergraduate adviser. Students must maintain a C average in upper-division major courses in order to remain in the French major.

Coursework taken on a Passed/Not Passed basis is not acceptable in any area of the major program.

It is recommended that students intending to major in French consult with the undergraduate adviser before enrolling in upper-division courses.

French and Linguistics BA

Learning Outcomes

The French and Linguistics major has the following learning outcomes:

- Demonstrated technical mastery of French language pronunciation, history, and structure
- Working knowledge of scholarly discourse relative to a specialized French linguistics topic such as phonology, syntax, or sociolinguistics
- Demonstrated specific skills and expertise acquired in coursework, including 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, 111, 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.
Lower-Division Courses

1. Elementary French. (4) Lecture, five hours. P/NP or letter grading.
2. Elementary French for Graduate Students. (3) Lecture, three hours. Preparation for GSFLT or other language examinations. Passing grade does not imply satisfaction of language requirements. S/U grading.
3. Elementary French. (4) Lecture, five hours. Enforced requisite: course 1 with grade of C– or better. P/NP or letter grading.
8. French and Francophone Studies. (5) 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.
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.
12. Introduction to French Culture and Civilization in English. (3) 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. S/U grading. Writing II requirement. Letter grade.
13. Society and Self in Early Modern France. (8) Lecture, three hours; discussion, one hour. Role of religion, politics, and sociality in constructing self and understanding its relation with society in early modern France. Deepening students' critical thought and knowledge of French and Eurosociocultural tradi.
14. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
15. French and Francophone Novels. (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 20th century, and their historical and political contexts. 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. May be repeated for maximum of 4 units. Individual honors contract required. Honors contract noted on transcript. Letter grading.
17. Medieval French. (3) Lectures, five hours; discussion, one hour. Taught in French. Study of 11th-century French culture and literature, including lyric poetry and narrative romance, history of medieval warfare, comedy, and class structures. May be repeated for credit with topic change. P/NP or letter grading.
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
23. Medieval and Renaissance French Literature. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of medieval French culture and literature, including lyric poetry and narrative romance, history of medieval warfare, comedy, and class structures. May be repeated for credit with topic change. P/NP or letter grading.
27. Medieval and Renaissance French Literature. (5) Lecture, three hours. Requisite: course 12. Masterpieces of medieval and Renaissance literature, including examples of epic (La Chanson de Roland), romance (Christétin de Troyes' Yvain), and Renaissance prose and poetry (including Marot, Du Bellay, Ronsard, Rabelais, Marguerite de Navarre, and Montaigne). P/NP or letter grading.
existentialism, new novel, theater, and poetry. May be repeated for credit with topic change. P/NP or letter grading.

121. Studies in Francophone Cultures and Literatures. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of Francophone cultures and literatures, including writers, poets, 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.

130. Contemporary French and Francophone Cultures. (4) Lecture, three hours. Requisite: course 12 or 101. Lecture, three hours. Study of contemporary French and 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. Requisite: course 12 or 101. 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.


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.

143. French and Francophone Studies / 401


189. Advanced Honors Seminars. (1-4) 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. Linkage Topics 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 in Translation. (4) Seminar, three hours. Research seminars on topics to be announced each term. Topics include translation, genres, and methods of the theoretical practices. Reading, discussion, and development of culminating project. May be repeated for credit with consent of major adviser. P/NP or letter grading.

191B. Variable Topics Research Seminars: French. (4) Seminar, three hours. Taught in French. Research seminars on topics to be announced each term. Topics include major writers, genres, cultural movement, or theoretical practices. Texts, discussion, and development of culminating project. May be repeated for credit with consent of major adviser. P/NP or letter grading.

195. Community or Corporate Internship in French. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract required. Letter grading.


204. Studies in Autobiography. (4) Lecture, three hours. Enrollment restricted to majors and minors in French and Francophone African, Caribbean, Vietnamese, or Quebec literatures and cultures, with specific attention to issues of cultural contact, language, colonialism, anticolonialism, national resistance, identity, and postcolonial theory. S/U or letter grading.

206. Contemporary Francophone Literature. (4) Lecture, three hours. Taught in French. Survey of Francophone literature. 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. P/NP or letter grading.

207. Contemporary Francophone Literature. (4) Lecture, three hours. Taught in French. Survey of Francophone literature. 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. P/NP or letter grading.

208HC. Honors Contracts. (1) Tutorial, three hours. Linkage Topics 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.

209. Community or Corporate Internship in French. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract required. Letter grading.

210. Techniques of Literary Analysis. (4) Lecture, three hours. Practice in close analysis of literary texts, including explanation de texte. S/U or letter grading.

212. Cultural Studies. (4) Lecture, three hours. Introduction to theoretical approaches to popular and mass culture, and to postcolonial and Francophone cultures. Topics include emergent disciplines and the- ories such as sociology and structuralism, cultural, avant-garde strategies, media, diaspora during postwar modernization, Algerian War, May 68, and beyond. Theorists include Barthes, de Certeau, Bourdieu, Baudrillard, Lyotard, Ross, Rey Chow, Virilio. S/U or letter grading.


234. Studies in Autobiography. (4) Lecture, three hours. Introduction to theories of autobiography and subjectivity, and to genre of autobiography in literatures in French across countries. 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. P/NP or letter grading.
FRESHMAN GENERAL EDUCATION CLUSTERS

See Cluster Program

GENDER STUDIES
College of Letters and Science
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Lucia Re, PhD, Dottore in Lettere
Abigail C. Saguy, PhD
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Assistant Professors
Juliann T. Anesi, PhD
Michelle F. Eraz, PhD
Joshua J. Guzman, PhD
Judy J. Han, PhD
Zeynep K. Korkman, PhD
Safiya U. Noble, PhD

Scope and Objectives
The Department of Gender Studies offers interdisciplinary academic programs that are both nationally and transnationally oriented. The undergraduate program offers a Bachelor of Arts degree and a minor; the graduate program offers Master of Arts (for PhD students only, no terminal master's degree) and PhD degrees.

Students develop critical reasoning and analytical skills, a deep appreciation for complexities of power and asymmetries in gender relations across time, class, and cultures, and conceptual tools for social change.

The Gender Studies curriculum challenges the pervasive theory/practice divide within the academy. In both undergraduate and graduate courses, students are taught a broad range of methodological and analytical skills. Core undergraduate courses contextualize foundational theories and key analytic concepts within the study of different historical periods and social movements. In 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, postcolonial 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 in study of sex and gender. Exploration of topics such as gender socialization, body image, sexualities, masculinities, and women’s subordination. Special emphasis on interaction of gender with other identity markers such as race, nation, ethnicity, sexuality, class, and other differences. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of critical thinking about topics from current intellectual events, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division course. 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 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. Requirement: 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 social, political, and economic subordination? How have feminist theorists addressed subject of power? How do empire, colonialism, liberalism, feminism, 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.

103. Knowledge. (4) Lecture, three hours. Enforced requisite: course 10. Exploration of social production of knowledge about gender and sexuality and gender systems. Students engage key issues in feminist theory and feminist epistemology. How do feminist scholars identify and frame research questions? How is knowledge produced, how marginalized subjects are presented? How has feminism challenged dominant understandings of knowledge, rationality, objectivity, and scientific method? How have social movements sought to challenge the social and political production of knowledge? May be repeated for credit? 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? Understanding of relationships between embodiment and desire? P/NP or letter grading.

M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Chicana and Chicano Studies M106B, Gerontology M104C, and Social Welfare M104C.) Exploration of complexity of variables related to diversity of aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

105. Topics in Women and Medicine. (4) Lecture/ discussion, three hours. Examination of health conditions of women in context of issues that impact women’s health, healthcare, and healthcare providers. Discussion of basic health concepts and self-care; consideration of women’s health specialty and ways to deliver healthcare to women. Exploration of roles and lifestyles of female physicians. P/NP or letter grading.

M105A. Premodern Queer Literary and Cultural Studies. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Examination of literary production of women from 1880s to present. Survey of women vocalists, as well as novels, plays, and poems. May be repeated for credit with instructor or topic change. P/NP or letter grading.

M105B. Queer Literatures and Cultures, 1850 to 1970. (5) (Same as English M101B and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Examination of literary production of women and queer people from 1850 to 1970. Works by such authors 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.

M105C. Queer Literatures and Cultures after 1970. (5) (Same as English M101C and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Examination of literary production of women and queer people from 1970 to present. Topics focus on artistic production of women and queer people in relation to issues of power, representation, and access. May be repeated twice, except for credit toward Gender Studies major. P/NP or letter grading.

113. Sex Work. (4) Lecture, three hours. Enforced requisite: course 10. Analysis of sex work both in U.S. and abroad from feminist perspective. Examination of how race, class, and genre affect the experience of erotic labor. Consideration of historically feminist responses by range of authors to sex work. Topics include brothels, phone sex, strip clubs, sex tourism, military prostitution, and international traffic in persons. Reading of texts by sex workers, as well as articles from current philosophical and policy debates about prostitution. P/NP or letter grading.

M114. Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies. (5) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M114.) Lecture, three hours; discussion, one hour. Introduction to history, politics, culture, and scientific study of lesbians, gay men, bisexuals, transgendered, and queer people; examination of sexuality and gender as categories for investigation; interdisciplinary theories and research on minority sexualities and genders. P/NP or letter grading.

M115. Topics in Study of Sexual and Gender Orientation. (5) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M115.) Lecture/discussion, three hours. Requisite: course 10 or M114. Studies in arts, humanities, social sciences, and/or life sciences. May be repeated for credit on aspects of gender identity, and lesbian, gay, and bisexual issues; variable topics may include cultural representations, historical and political change, and life and health experiences, and queer or transgender theories; multietnic and cross-cultural emphases. May be repeated for credit. Letter grading.

M116. Sexuality and City: Queer Los Angeles. (4) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M116.) Lecture, three hours. Requisite: course 10 or M114. Study of queer, lesbian, gay, and/or bisexual perspectives on Los Angeles, with consideration of roles of gender as categories for investigation; interdisciplin ary theories and research on minority sexualities and genders. P/NP or letter grading.

M117. Queering American History. (4) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M117.) Lecture, three hours. Enforced requisite: one prior lesbian, gay, bisexual, transgender, and queer people course. Historical and theoretical study of queer minorities in U.S. Topics include changing norms, romantic friendships, medical discourse, liberation politics, post-Stonewall culture, AIDS, transgender movements, queer theory, and politics. P/NP or letter grading.

M118. Tristan, Isolde, and History of Heterosexual- ity. (4) (Same as German M105.) Lecture, three hours. Taught in English. German, French, and English versions are available. May be repeated for credit with instructor or topic change. P/NP or letter grading.

120FL. Feminist Praxis: Community-Based Learning. (Seminar, three hours; fieldwork, four hours. Preparation: at least two gender studies core courses. Requisite: course 10 and 104 or 104 or 104 or 104 or 104 or 104 or 104. Service-learning course combining seminar with practical experience working on gender issues and connecting these experiences to methodological and theoretical themes explored in gender studies core courses. Community partners selected in advance by instructor in consultation with Center for Community Learning. Letter grading.

M121. Topics in Gender and Disabilities. (4) (Same as Disability Studies M121.) Lecture, four hours. Limited to juniors/seniors. Weeks in which issues of disability are affected by gender, with particular attention to various roles, positions, and concerns of women with disabilities. Approach is intersectional, exploring how social categories of class, race, ethnicity, religion, age, sexuality, nationality, and citizenship affect and are affected by gender and disability. Topics include civil rights, discrimination, representation (arts, literature), educa-
tion, public policy, health. May be repeated for credit with topic and instructor change. P/NP or letter grading.

122. Masculinities. (4) Lecture, three hours. Enforced requisite: course 10. Masculinity as theorized by femi-nists and shaped by race, class, age, and nation. Topics include the ways masculinity is created, contested, and performed across race, class, body, childhood and adolescent socialization, sport, male violence, homophobia, black masculinity, glo- balization and masculinity, and men’s movements in 1970s and beyond. Special emphasis on social sci-
ences approaches and methodologies. P/NP or letter grading.

123. Gender, Race, and Class in Latin American Literature, 1550 to 1950. (4) Seminar, three hours. Requisite: course 10. Readings and discussion in English. Comparative survey of cultural expression in Latin America, with emphasis on works produced or set in late-19th and early-20th centuries. Historical and social circumstances of women in different Latin American cultural contexts, with particular concentra-
don how gender, sexuality, race, and class are ab-
sorbed and reflected in literature and film. Within the genealogy, examination of how cultural production sustains or interrogates categories used to construct social, political, and cultural hierarchies. Topics in-
clude questions of authorship and authority such as women’s participation in formation of national cul-
tures, engagement with artistic movements, and strategies of self-figuration. P/NP or letter grading.

M124. Sex, Race, and Difference in Transnational Film, Television, and Video, (4) Lecture; one and one half hours; discussion, three hours; one half hour, Drawing on femin-
ism media studies, training of students in media lit-
eracy so they acquire necessary skills to critically inter-
terrogate film as medium of communication and to appreciate how film provides lens to examine some of the most critical issues of our time. Development of under-
standing of transnational cinema to examine how circula-
tions and commodities change and transform femin-
ism, and problematic, and sometimes reinforce national borders. Examination of role of film in both exempli-
ying and representing these conditions of transna-
tionality. How films enable understandings of historical and contemporary relationships between mobility, co-
ercion, and migration; colonialism and settler colo-
nialism; Orientalism, geopolitics, and sexuality; cul-
tural identity and diaspora; transnational conceptions of sexual desire and embodiment; immigration and religious difference; and criminalization of racial differ-
ecnce, P/NP or letter grading.

125.7. Alternative Approaches to Women’s Health. (4) Lecture/ discussion, three hours. Requisite: course 10. Exam-
ination in depth of various ways women provide healthcare in both paid and unpaid capacities and of political, economic, and social factors affecting women’s access to healthcare. P/NP or letter grading.

M126. Feminist and Queer Theory. (5) Same as En-
glish M126 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M126.) Lecture, four hours; dis-
cussion, one hour (when scheduled). Enforced requi-
site: English Composition 1A. Lectures and dis-
ussion on feminist theories of masculinity, male
nests and shaped by race, class, age, and nation.
Topics include feminist theories of masculinity, male
nests and shaped by race, class, age, and nation.

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ination in depth of various ways women provide healthcare in both paid and unpaid capacities and of political, economic, and social factors affecting women’s access to healthcare. P/NP or letter grading.

M126. Feminist and Queer Theory. (5) Same as En-
glish M126 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M126.) Lecture, four hours; dis-
cussion, one hour (when scheduled). Enforced requi-
site: English Composition 1A. Lectures and dis-
ussion on feminist theories of masculinity, male
nests and shaped by race, class, age, and nation.
Topics include feminist theories of masculinity, male
nests and shaped by race, class, age, and nation.
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, internationalization 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) Lecture, four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in history of American women from abolition of slavery and Civil War to rise and consequences of second-wave feminism. P/NP or letter grading.


M149. Media: Gender, Race, Class, and Sexuality. (Same as Communication M149 and Labor and Workplace Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/senior. Communication Studies and Gender Studies majors and Labor and Workplace Studies students. Examination of manner in which media culture produces to perceive various dominant and dominated and/or colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial and ethnic marginalized people, and peoples, and other subaltern or subordinate groups are presented and often misrepresented in media through use of media, guest presentations, lectures, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.


M154Q. Selected Topics in Gender Systems. (Formerly numbered M154Q.) (Same as Anthropology M145Q.) Lecture, three hours. Requisite: preparation: prior anthropology or gender studies courses. Designed for junior/seniors. 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.

M154R. Women and Social Movements. (Formerly numbered M155Q.) (Same as Anthropology M145R.) Lecture/discussion, three hours. Recommended preparation: prior gender studies or anthropology courses. Critical examination of women's 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 gender and sexual violence, reproduction, and class. Introduction to major themes in women's studies and feminisms. P/NP or letter grading.

M154T. Women's Voices: Their Critique of Anthropology of Japan. (Formerly numbered M155T.) (Same as Anthropology M154T) Lecture, three hours. Preparation: introductory sociocultural anthropology course. The anthropology of Japan has long viewed Japan as a homogeneous whole. Restitution of diversity and contradiction in it by listening to voices of Japanese women in various historical contexts. P/NP or letter grading.

M155. 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. Discussing themes from slave rebellion, political struggles of women, and body. Examination of dramatic challenges to gender roles over course of the 20th century. Analysis of rebellious women who led for myriad of changes in women's lives. Offered in summer only, P/NP or letter grading.

M157. Chicana Historiography. (Same as Chi- cana 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 moments, such 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. (Same as Italian M158.) Lecture, three hours; discussion, one hour. Analysis of gender roles, traditional and modern, as they are represented in literature, myths of Madonna and Latin lover, condition of women in Italian society through history, politics, literature, and visual culture. Scholarship from Italy required to read texts in Italian. P/NP or letter grading.

M159. Pornography and Evolution. (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. Required: course 10. From Don Imus’ 2000 “nappy-headed hos” comment to controversies about transgender athletes and athletes with prosth- etics; from covers of magazines to violence in Dodger’s Stadium parking lot; football players not standing during national anthem, college men’s teams rating women’s teams in terms of sexual positions, unionization of athletes—discourses of sport draw heavily upon extant ideologies of race, gender, sexuality, and class. Introduction of cross-cultural analysis of so- cial 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. (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 opportunities to compete with nondisabled athletes. Overview of some major topics of discussion concerning intersections of athletic competition and disability. Addressing themes of representation and social identities, the place of disability in sport and society, and social implications, how do we redefine the Olympic ideal of the athlete? Class discussion, and analysis of media, film, and other media representations of disability in sport and society. P/NP or letter grading.

M162. Sociology of Gender. (Same as Sociology M162.) Lecture, three hours; discussion, one hour. Enforced requisite: course 10. Examination of processes by which gender is socially constructed. Topics include distinction between biological sex and sociological gender, causes and conse- quences of gender inequality, and changes in the institution of gender in modern industrial societies. P/NP or letter grading.
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 labor market and labor force characteristics between men and women, and consequences and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

Politics of Reproduction. (4) (Same as Sociology M164.) Lecture, three hours; discussion, one hour. Thriving bodies and political life cycle. Topics include social construction of gender and population, reproductive issues, politicization of motherhood, role of mother, surrogacy, and new reproductive technologies. Letter grading.

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.

Psychology of Gender. (4) (Same as Psychology M165.) Lecture, four hours. Consideration of psychological literature relevant to understanding contemporary sex differences. Topics include sex-role development and role conflict, physiological and psychological sex differences, and sex differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

Contested Sexualities. (4) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M167.) Lecture; three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transgender people. Variable topics include identity and community; age, class, gender, and racial diversity; and analysis of contemporary issues affecting contested sexualities. Letter grading.

Economics in Globalizing World. (4) Lecture, four hours. Preparation: satisfaction of Letters and Science Writing II requirement. Requisite: course 10. Designed for juniors/seniors. Overview of field of feminist economics, with emphasis on developmental experiences in globalizing world economy. Overview of gender inequalities such as gender division of labor in paid and unpaid work, patterns of employment and unemployment, and wage gaps between men and women in different world economy regions; feminist critiques of economics and of theoretical debates within gender and development field such as structural adjustment, globalization of labor force, and poverty; examination of efforts and proposals by governments, international policy-making institutions, and civil society organizations to promote more gender equitable policies and structures gender-equitable. P/NP or letter grading.

Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5) (Same as Comparative Literature CM170.) Seminar, three hours. Designed for upper-division literature majors. Investigation of narrative texts by contemporary French, German, English, American, Spanish American, African, and Asian women writers from cross-cultural perspectives. Corequisites: course CM178. Concurrently scheduled with course CM270. P/NP or letter grading.

History of Women in China, AD 1000 to Present. (4) (Same as History 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, women and science, family and first manifestations of feminist consciousness in second half. Objects or texts created by women examined or read throughout. P/NP or letter grading.

Women in 20th-Century Japan. (4) (Same as History M173B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Japanese women in Japanese and world history through state documents, autobiographical voices, contemporary television, and other varying historical sources, including topics such as women and new political order (1930 to 1933), women, war, and empire (1930 to 1945), and women in consumer society (1980s to 1990s). P/NP or letter grading.

Sociology of Family. (4) (Same as Sociology M174.) Lecture, three hours; discussion, one hour. Theoretical and practical, multidisciplinary family, its structure, and functions, including historical changes, familial variety patterns, family as institution, and influence of contemporary society on family. P/NP or letter grading.

Women and Cities. (4) (Same as Urban Planning M175.) Lecture, three hours. Limited to juniors/seniors. Examination of relationship between women and cities; (1) social costs of policies and structures gender-equitable. P/NP or letter grading.

Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM178.) Seminar, three hours. Corequisites: 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 critical media literacy and student analysis of media and critical media literacy projects. Concurrently scheduled with course CM278. Letter grading.

Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Education CM178L.) Seminar, two hours; discussion, one hour. Hands-on production experience as integral component of course CM178. Concurrently scheduled with course CM278L. Letter grading.

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, persona of man of science, role of women in scientific revolution, scientific investigations of women and femininity. P/NP or letter grading.

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.

Voices of Women in Nordic Literature. (4) (Same as Scandinavian CM144A.) Seminar, three hours. Requisite: Scandinavian 105B or 106B or 107B. Knowledge of other Nordic languages 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.
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 interdisciplinary research on minority and gender studies. (de)codification of messages of resistance, and analysis of various job markets. May be repeated once for credit with instructor change. Letter grading.

204. Research Design and Professional Development. (4) Seminar, three hours. Required of third-year gender studies graduate students. To be taken after all other coursework is complete; primarily geared toward proposal writing for dissertations and outside grants. Process of constructing dissertation proposals by providing structured process with increased student responsibility; proposal preparation; draft. Professional development for students as they prepare to enter academia or other professions. Help in preparation for full grant-writing season, exploration of various job markets. May be repeated once for credit with instructor change. Letter grading.

205. Subfields in Gender Studies. (4) Seminar, three hours. Departmental topics course that offers in-depth aspects of field. Limits of investigation set by individual instructor. S/U or letter grading.

210. Topics in Women and Public Policy. (4) Lecture, four hours. 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 Sexualities. (4) Lecture, four hours. Designed for graduate gender studies students. Introduction to background, decision-making processes, and current debates over public policy directly affecting women in one or more major spheres of public life (e.g., work, family, political system, healthcare, legal regulation). Topics may focus on public health, political science, medicine, workplace studies, and social welfare. May be repeated once for credit with topic or instructor 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 sexual orientation, queer sex and trans-gender theory, interdisciplinary research on minority sexualities, and social construction/deconstruction of gender. May be repeated for credit with topic or instructor change. Letter grading.

222. Chicana Feminism. (4) Same as Chicana and Chicano Studies CM214.) Lecture, four hours. Enforced requisite: course 10 or Chicana and Chicano Studies 10A. 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. May be repeated once for credit with instructor change. Letter grading.

253A. Seminar: Current Problems in Comparative Education. (4) Same as Education CM253A.) Seminar, four hours. Examination of some of most influential critical theorists, including Marx, Nietzsche, Freud, Marcuse, Foucault, Fanon, and de Beauvoir and their contributions to critique of contemporary education, society, and politics. S/U or letter grading.

255S. Cross-Cultural Perspectives on Gender. (4) Same as Sociology CM255S.) Seminar, three hours. How does gender manifest itself in lives of different groups of women in U.S. and abroad? Are universal analytical categories or united feminist movements possible or is gender too different cross-culturally? S/U or letter grading.

259A-M259B. History of Women. (4) Same as History 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.

261. Gender and Music in Cross-Cultural Perspective. (4) Same as Ethnomusicology CM261.) Seminar, three hours. Designed to foster in-depth understanding of gender in study of music as culture. Topics range from ethnomusicology of gender and sexuality, (de)codification of messages of resistance, and gender representation to gendered politics via musical production. S/U or letter grading.

263. Gender Systems. (4) Formerly numbered M263P.) Same as Anthropology CM243.) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationship between gender system and economy, ideational systems, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter grading.

266. Feminist Theory and Social Sciences Research. (4) Same as Education CM266.) Lecture, four hours. Examination of how diverse feminist social theories of last quarter century have both challenged and strengthened conventional social sciences theories and their methodologies. Introduction especially to feminist standpoint theory, distinctive critical theory methodology now widely used in social sciences. Letter grading.


CM278L, Critical Media Literacy and Politics of Gender: Laboratory. [0] (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: apprentice personnel employment as teaching assistant, associate, or fellow. Requisite or corequisite: course 495. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Feminist Pedagogy. (2) Seminar, two hours. Preparation: appointment as teaching assistant in department. Introduction to feminist methods of teaching, with emphasis on reciprocity and dialogue and de-emphasis on hierarchy. Required of students while serving as teaching assistants (first time only) in undergraduate gender studies courses. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Requisites: courses 201, 202, 203, 210. 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 advisor and advisory committee. Graduate students work in most major areas of geography and on projects around the world. Graduate alumni of the department have teaching positions at many leading universities in the U.S. and abroad.

Undergraduate Study

Geography BA

The Geography major allows students to combine a broad background in the field with more specific interests and career goals. Students can select classes in several areas of geography such as urban, economic, cultural, environmental, physical, or biogeography. They should consult with the undergraduate advisor to plan a program suitable to their personal objectives.

Learning Outcomes

The Geography major has the following learning outcomes:

• Comprehensive knowledge of the main strands of physical and human geography, including familiarity with major theoretical perspectives
• Command of various geographical methods and techniques such as remote sensing, cartography, and field methods
• 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, 5, 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 course—six courses from 100, 101, 102, 104, 105, M106, M107, 108, M109, 110, 111, 112, 113, 114, M115, 116, M117, 122, 123, 124, 125, 126, M127, M128, 129, M131, 132, 135, M137, 159C, 159D, 159E; (2) human systems core—two courses from 118, 133, 138, 140, 141, 142, 143, 144, 145, M146, 147, 148, M149, 150, 151, M153, 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 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.

Geopolitical Information Systems and Technologies Minor

The Geopolitical Information Systems and Technologies minor is designed to provide students with a strong background in the use, application, and development of geopolitical/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 in 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. (6) 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 place, space, and landscape as these have shaped and been shaped by connections between societies and their natural environments. Examples of 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 ecosystems natural environment and how modification of environment can eventually have significant consequences for human activity. Examination, using case studies, of real environmental problems that confront us today. P/NP or letter grading.

6. World Regions: Concepts and Contemporary Issues. (5) Lecture, three hours; discussion, two hours. Interdisciplinary and historical approach to modern peoples, their differences in wealth or poverty, and their local origins of food production. Brief introduction to physical geography and biogeography of each region. Discussion of each region’s peoples, languages, foods, prehistories, and histories. 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). Reinforcement of key issues in GIS, such as geographic coordinate systems, map projections, spatial analysis, and visualization of spatial data. Laboratory exercises use database query, manipulation, and spatial analysis to address real-world problems. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

88A-88Z. Lower Division Seminars: Geography. (4 each) Discussion, three hours; reading, one hour. Designed for freshmen/sophomores. Seminar topics advertised in department during previous term. P/NP or letter grading.


89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours; reading, one hour. Enrolled 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 Geomorphology. (4) Lecture, three hours; reading, one hour. Designed for course 1. Recommended: course 100A. 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, one hour. Recommended: course 101A. Dynamic role of coastal features and processes, with emphasis on past and present changes, hydrodynamic processes, sediment transfer, and such features as beaches, estuaries, mangroves, dunes, islands, sandbars, 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, one hour. Designed for juniors/seniors. Examination of many relations 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, landscapes, soils, vegetation, and cultural processes and impacts on landscape. Students solve applied hydrology problems in laboratory and make hydrologic measurements in field. P/NP or letter grading.

M106. Applied Climatology: Principles of Climate Impact on Natural Environment. (4) Same as Atmospheric and Oceanic Sciences M106.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Examination 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 Environmental 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 technical needs 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 Environment: What Science Has Learned. (4) (Same as Environment M109.) Lecture, three hours; reading period, one hour. Designed for seniors/graduates. 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 impacts (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/graduates. 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, one week. (Same as Biological Sciences 1.) Designed for juniors/seniors. Evaluation of ecological principles as they apply to forests. Emphasis on constraints of physical environment, biotic interactions, successional patterns, and 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 M127.) 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 reflects past phenomena 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. 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 127. Investigations and demonstrations supporting material in course 127, 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. Theme related 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 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.

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.
across borders is encouraged and regulated. How questions of labor, migration, sexuality, rights, ethics, embodiment, representation, and governance pertain to human trafficking. What people mean when they speak of human trafficking as slavery. Meanings of slavery vary and change historically, and societies differ in their perceptions of what constitutes trafficking. What people mean when they speak of human trafficking as slavery. Meanings of slavery vary and change historically, and societies differ in their perceptions of what constitutes trafficking. What people mean when they speak of human trafficking as slavery. Meanings of slavery vary and change historically, and societies differ in their perceptions of what constitutes trafficking.

139. Japan in World: Culture, Place, and Global Connections. (4) Lecture, three hours, reading period, one hour. Focus on questions of culture and place in Japan. Exploration of ways that these questions—and Japan itself—have been shaped by historical and contemporary interactions involving people in both Japan and other parts of world. P/NP or letter grading.

140. Political Geography. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Spatiality of political activity, spatial constitution of political power, control over space as central component to political struggles. Studies at local, national, state, and global scales. P/NP or letter grading.

141. Inequality, Development Geographies: Prosperity and Impoverishment in Third World. (4) Lecture, three hours; discussion, two hours (when scheduled). Geographical perspective on part of globe commonly called Third World. How development has shaped livelihood possibilities and practices, by global processes stretching back centuries, and transformative possibilities of Third World agency, and problems in different parts of world and at different geographical scales—from local to global. Paradoxes such as race, class, gender, age, sexuality, locality. Critical explorations of identity, social categorizations, and spatial structures. Importance of space and place in social life. P/NP or letter grading.

142. Population Geography. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Spatial and temporal dependencies influencing people in their patterns of demographic change, migration, and mobility, with special emphasis on spatial relationships and selected case studies. P/NP or letter grading.

143. Population in Interacting World. (4) Lecture, three hours. Provides multidisciplinary understanding of and appreciation for human population phenomena and problems in different parts of world and at different geographical scales—from local to global. Paradoxes such as race, class, gender, age, sexuality, locality. Critical explorations of identity, social categorizations, and spatial structures. Importance of space and place in social life. P/NP or letter grading.

144. Ethnicity in American Cities. (4) Lecture, three hours; reading period, three hours. Limited to juniors/seniors. Designed to encourage and facilitate critical thinking about geographical aspects of ethnicity in contemporary America. Use of comparative perspectives to examine how ethnicity, race, class, gender, and behavioral patterns vary across different social contexts and environments.

145. Slavery and Human Trafficking. (4) Lecture, three hours; reading period, one hour. Enforced requisite: course 3, 4, Anthropology 9, Gender Studies 10, or Sociology 1. Limited to juniors/seniors. Exploration of how, why, and to what ends human trafficking has been conceptualized as global problem that warrants international response. Examination of recent activist, governmental, scholarly, and media responses, and reflection on what is and is not accomplished by them. Questions of human trafficking are implicit geographically, requiring consideration of how freedom is spatially defined and how movement across borders is encouraged and regulated. How questions of labor, migration, sexuality, rights, ethics, embodiment, representation, and governance pertain to human trafficking. What people mean when they speak of human trafficking as slavery. Meanings of slavery vary and change historically, and societies differ in their perceptions of what constitutes trafficking. What people mean when they speak of human trafficking as slavery. Meanings of slavery vary and change historically, and societies differ in their perceptions of what constitutes trafficking. What people mean when they speak of human trafficking as slavery. Meanings of slavery vary and change historically, and societies differ in their perceptions of what constitutes trafficking.

146. Feminist Geography. (4) Same as Gender Studies M146. Lecture, three hours; discussion, one hour. Critical engagement of gender as concept of geographical theory as gender as spatial process, analysis of feminist geographic theory and methods, landscapes of gender, challenges of representing gender. Spacess of femininity, masculinity, and sexuality. P/NP or letter grading.

147. Social Geography. (4) Lecture, three hours; discussion, one hour. Study of spatiality of social differences such as race, class, gender, age, sexuality, locality. Critical explorations of identity, social categorizations, and spatial structures. Importance of space and place in social life. P/NP or letter grading.


149. Transportation Geography. (4) Same as Urban Planning M130. Lecture, three hours. Requisite: course 3 or 4. Designed for juniors/seniors. Study of geographical aspects of transportation, with focus on characteristics and functions of various modes and on complexities of intra-urban transport. P/NP or letter grading.


152. Cities of Europe. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Urbanization of Europe, growth of city systems and internal spatial structure, functions, and geographic problems of contemporary European cities. Parameters of urban development and landscapes of capital cities such as Rome, Paris, and Berlin. P/NP or letter grading.

153. Past People and Their Lessons for Our Own Future. (5) Same as Anthropology M148 and Honors College M152. Lecture, two hours; discussion, two hours. Examination of modern and past people that met varying fates, as background to examination of how other modern people are coping or failing to cope with similar issues. Letter grading.

155. Industrial Location and Regional Development. (4) Lecture, three hours. Requisite: course 4 or Economics 1 or 2 or 5 or 11. Designed for juniors/seniors. Reexamination of urban location theory in light of contemporary theories of industrial organization and local labor markets. Consideration of empirical patterns of industrialization and regional growth, with special reference to employment shifts and offshore relocation. P/NP or letter grading.

156. Metropolitan Los Angeles. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of origins, growth processes, internal structure and pattern, interactions, environment and spatial problems of Los Angeles metropolitan area. P/NP or letter grading.

157. Korean Urban Experience. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors with previous coursework in geography or East Asian studies. Study of cities by geographers examining how they have shaped livelihood possibilities. Study of geographical aspects of transportation, with focus on complexities of intra-urban transport. P/NP or letter grading.


159A. Urban and Regional Development Studies; 159B. Spatial Demography and Social Processes in Cities; 159C. Culture and Environment in Modern World; 159D. Physical Geography; 159E. Biogeography.

Procedures

162. Glacier Environments of California’s High Sierras. (4) Fieldwork, 10 hours; discussion, four hours. Introduction to alpine glacial environment through three hours of introductory lecture followed by intensive study of field-trade features in California’s High Sierras. Students carry out laboratory exercises as well as data collection for research projects designed around their individual interests. Presentation of additional evening lectures, using presentation facilities at Sierra Nevada Aquatic Research Laboratory (SNARL). Offered in summer only. P/NP or letter grading.

163. Field Analysis in Biogeography. (4) Fieldwork, eight hours. Requisites: courses 2, 5, 108, 112. Examination of field procedures and identification concepts used in observation, measurement, analysis, and interpretation of phenomena pertinent to biogeography and interested human influences. P/NP or letter grading.

164. Environmental Modeling. (4) Lecture, one hour; laboratory, two hours. Presentation of basic concepts related to computer modeling of biogeochemical cycles, geomorphic processes, and other phenomena relevant to changing Earth and its inhabitants. Laboratory exercises include building basic computer models and working with existing models. P/NP or letter grading.


167. Satellite Remote Sensing and Imaging Geographic Information Systems. (4) Lecture, two hours; laboratory, one hour. Enforced requisite: completion of an introduction to environmental monitoring from space. Application of Landsat, radar, Global Positioning System (GPS), and Earth Observing System satellites to land-use change, geodemographic and environmental monitoring. Introduction to digital image-processing and imaging geographic information systems (GIS) software. P/NP or letter grading.


173. Geographic Information Systems Programming and Development. (4) Lecture, two hours; laboratory, two hours. Requisite: course 168. Introduction to fundamental concepts and architecture of programming environments. Development of GIS and frequently 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.


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 information science. 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 contemporary economic and cultural geography of Mexico and Canada. P/NP or letter grading.

181. Mesoamerica, Caribbean, and 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 South America and contemporary economic and cultural geography of South America and the Caribbean. P/NP or letter grading.

182A. Spanish South America. (4) Lecture, three hours; reading period, one hour. Designed for seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of Spanish South America and contemporary economic and cultural geography of individual Spanish-speaking countries. P/NP or letter grading.

182B. Brazil. (4) Lecture, three hours; reading period, one hour. Designed for 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 Brazil. P/NP or letter grading.

183. The Mediterranean World. (4) Lecture, three hours; reading period, one hour. Designed for juniors/ seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of Mediterranean region, with emphasis on 1500s to present. Introduction to great disputes in history and ecology centered on this region and character of two shores of Mediterranean basin. P/NP or letter grading.

184. California. (4) Lecture, three hours; reading period, one hour. Designed for seniors. Systematic and regional treatment of geography of California, including physical, cultural, and economic aspects and detailed studies of various regions. P/NP or letter grading.

185. South and Southeast Asia. (4) Lecture, three hours; reading period, one hour. Designed for seniors. Regional synthesis with varying emphasis on people of South or Southeast Asia in their physical, biotic, and cultural settings and its dynamic transformation. P/NP or letter grading.

186. Contemporary China. (4) Lecture, three hours; reading period, one hour. Designed for seniors. Systematic geographic analysis of elements of landscape, resources, population, and socioeconomics of people of South or Southeast Asia in their physical, biotic, and cultural settings and its dynamic transformation. P/NP or letter grading.

Special Studies

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 undergraduates. Designed as adjunct to upper-division undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be 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 15 students in College Honors Program. Re- 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 maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Geogra- phy. (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 or of research of faculty members or students. May meet concur- rently with graduate research seminar. May be re- peated for credit with topic change. P/NP grading.

C194A. Research Group Seminars: Issues in Bio- physical Geography. (1) Seminar, one hour. De- signed for undergraduate students who are part of re- search group. Bimonthly seminar to discuss current research in biophysical geography. Topics vary from year to year. May be repeated for credit. Concurrently scheduled with course C299B. P/NP grading.

195. Community or Corporate Internships in Ge- ography. (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 super- vising faculty member required. P/NP grading.

188A-188B. Honors Research in Geography I, II. (4) Tutorial, to be arranged. Preparation: 3.25 grade-point average at UC. Open to upper-division geography courses with 3.5 grade-point aver- age. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive re- search project. Change in number of units of credit or faculty members. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

199. Special Studies. (2 to 8) Tutorial, to be ar- ranged. 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 geog- raphy in 19th and 20th centuries, with emphasis on professionalism of geography and its emergence as modern academic discipline. S/U or letter grading.


Methods Courses

201. Research Design in Geography. (4) (Formerly numbered 296D.) Lecture, four hours. Introduction to logic of geographic inquiry. Topics include questions surrounding philosophy of geographical and empirical issues, and range of methodologies available to and implemented by geographers to enable students to evaluate geographic literature critically. S/U or letter grading.

202. Qualitative Methods and Methodology. (4) (Formerly numbered 296C.) Seminar, three hours; lab- oratory, two hours. Examination of definition and use of qualitative methodology and methods in social-cul- tural geographic research. Exploration of relationship between methodology and epistemology; review of range of research methods and techniques, including interviewing and focus groups, observation, action re- search, ethnography, and interpretation of material culture, and consideration of ethical and practical issues of conducting qualitative research. S/U or letter grading.

204. Statistical Methods for Geographic Research. (4) (Formerly numbered 299A.) Lecture, three hours; laboratory, two hours. Requisite: course M171. Use of linear models, discriminant functions, and factor analy- sis to analyze problems in geography. S/U or letter grading.

M205. Spatial Statistics. (4) (Formerly numbered 2272.) (Same as Statistics M222 and Urban Planning M215.) Lecture, three hours. Designed for graduate students. Review of major statistical methods used in analysis of spatial data. Implementation of various techniques using real data sets from diverse fields, including neu- roimaging, geography, seismology, demography, and environmental science. S/U or letter grading.

M206. Introduction to Biophysical Modeling of Land Surface Processes and Land/Atmosphere Interactions. (4) Same as Atmospheric and Oceanic Sciences M206. Lecture, two hours; laboratory, one hour; reading period, one hour. Designed for graduate students. Presentation of introductory knowledge for graduate students to understand nature, principles, and scope of biophysical modeling of land surface processes, including idealization, parameterization, and heat and CO2 fluxes transfer, and satellite data applica- tion. 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, Statis- tics 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) (For- merly numbered 299D.) Laboratory, three hours; inde- pendent 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, one hour; 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 for 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. Requisite: course 118. In-depth study of selected topics in medical geography and intense review of recent research. S/U or letter grading.

Human Geography Courses
M224. International Migration. (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 research in geography.

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, liberalism, idealism, 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. 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, one hour. Emphasis on processes of development; social/cultural/physical geography entailing conceptualizing, adapting, and reformulating social and critical theories of space, subject, and power. Examination of this process by considering theoretical themes that shape concepts of social space and social research. Theoretical discussions of recent research in social/cultural geography, particularly around topics of gender, race sexuality, subalternity, spatiality, resistance and agenda, and social difference and identity. S/U or letter grading.

236. Seminar: Cultural Geography. (4) (Formerly numbered 233.) Seminar, three hours; reading period, two hours. Discussions on particular topics in cultural geography. Content may vary from year to year. May be repeated for credit. S/U or letter grading.

237. Seminar: Historical Geography. (4) Seminar, three hours; reading period, two hours. Theory and practice of historical geography in different parts of the world. May be repeated for credit. S/U or letter grading.

238. Seminar: Urban Geography. (4) (Formerly numbered M238.) Seminar, three hours; reading period, two hours. Discussion of urban theory. S/U or letter grading.

240. Seminar: Geographic Thought. (4) (Formerly numbered 295S.) Seminar, three hours; reading period, two hours. Designed for graduate students. Discussion, synthesis and study of topics significant to growth of modern philosophy of geography. S/U or letter grading.

Human Geography Advanced
245. Advanced Political Geography: Geopolitics. (4) (Formerly numbered 240L.) Lecture, two hours; discussion, one hour; reading period, one hour. Intensive study of theories and principles of geopolitics. Selected regions used as examples of differing techniques of study in geopolitics. S/U or letter grading.

247. Advanced Topics in Cultural Geography. (4) (Formerly numbered M234.) Seminar, one hour; reading period, one hour. Requisite: course 133. Lectures and discussions around specific aspects of development of cultural landscape in different geographic environments. S/U or letter grading.

248. Advanced Topics in Economic Geography. (4) (Formerly numbered 231L.) Seminar, three hours; reading period, one hour. Designed for graduate students. Advanced study of economic theories and principles S/U or letter grading.

249. Advanced Population Geography. (4) (Formerly numbered M242.) Lecture, three hours; reading period, one hour. Requisite: course 142. Study of population dynamics and migration, spatial variation in population composition, and population resource policies, diffusion, and epidemiology. S/U or letter grading.

250. Advanced Topics in Urban Geography. (4) Seminar, two hours; discussion, one hour; reading period, one hour. General study of hierarchy of urban places, including diffusion within hierarchy 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 physical geography, illustrated from historical development and changing research frontiers in geomorphology, climatology, oceanography, hydrology, and palaeontology.

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 on impact of human activities and institutions on terrestrial ecosystems and goods and services they provide. Topics vary from year to year. May be repeated for credit with topic change. S/U or letter grading.

258. Human Security and Environmental Change. (4) (Formerly numbered 228,) Seminar, three hours. Discussion of impact of environmental change on food, water, and physical security of human populations and societies’ adaptations to environmental change. Topics vary from year to year. S/U or letter grading.

260. Evolution, Ecology, Environmentalism, and Roots of Modern American Geography. (4) (Formerly numbered M297C.) Seminar, three hours; reading period, one hour. Discussion of contemporaneous development of modern concepts of evolution, ecology, and environmentalism influenced, and were influenced by, development of modern geography as a 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 problematic of increasing internationalization (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.

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. 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 over monthly, seasonal, and interannual time scale. May be repeated for credit. S/U or letter grading.
GERMANIC LANGUAGES

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Germanic Languages
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Dominic R. Thomas, PhD, Chair

Professors

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Dominic R. Thomas, PhD (Madeline L. Letessier Professor of French and Francophone Studies)

Professors Emeriti

Ehrhard Bahr, PhD
Marianna D. Birnbaum, PhD
Robert S. Kirsner, PhD
James A. Schultz, PhD

Associate Professors

David D. Kim, PhD
Christopher M. Stevens, PhD
Yasemin Yildiz, PhD

Lecturers

Maria F. Brier
Miriam R. Koral
Magdalena Tarnawska Senel, PhD

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.
No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Afrikaans, Dutch, German, and Yiddish grammar and/or composition.

German 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 142; 152; 153 or 158; 191C; and six upper-division German courses, two of which may be from outside the department with approval of the director of undergraduate studies. Each course must be taken for a letter grade.

Plan III: Germanic Linguistics
Required: German 140, 141, 142, 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 advisor 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 Scandnavian (see Scandnavian Section).

Afrikaans

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

40. From Oppressed to Oppressor and Beyond: Literature in Afrikaans from Prepartheid to Postapartheid Era in English Translation. (5) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 4th. Development of all literature in Afrikaans, with special attention to authors and poets who protested apartheid—Brink, Breytenbach, Van Heerden, Jonker, Joubert, Krige, Krog, Le Roux, Rabie, Smaill, and Willemsen. Additional readings by Coetzee, De Lange, Krog, and others on censorship, imprisonment, South African history, and postcolonial literary theory. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to 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.

105A. Elementary Afrikaans. (4) Lecture, four hours; language laboratory. Introduction to sister language of modern Dutch and one national language of South Africa. Grammar, practice in listening, speaking, reading, and writing. P/NP or letter grading.

105B. Intermediate Afrikaans. (4) Lecture, four hours; language laboratory. Requisite: course 105A. Grammatical exercises; reading and linguistic analysis of texts from both literary and nonliterary sources. P/NP or letter grading.

135. Introduction to Afrikaans Literature. (4) Discussion, three hours. Requisite: course 105B. Analysis of selected works from founding of Genootskap van Regte Afrikaners in 1875 to present time, including novels by recent writers such as Louw 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. Directed Individual Study or Research in Afrikaans. (4) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

199. Directed Research or Senior Project in Afrikaans. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses
596. Directed Individual Study or Research in 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 tourista aura surrounding The Netherlands by actively comparing and contrasting contemporary Dutch culture and society with contemporary American culture and society. How life would be different growing up in The Netherlands. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

198HC. 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. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Graduate Courses

596. Directed Individual Study or Research in Dutch. (4) Tutorial, to be arranged with faculty member who directs study or research (course section to be identified by two-letter code using initials of sponsoring instructor). May be repeated once. S/U grading.

597. Preparation for PhD Qualifying Examinations. (4) Tutorial, to be arranged with faculty member who directs study (see department for ID number). S/U grading.

German

Lower-Division Courses

1. Elementary German. (4) Lecture, five hours; laboratory, one hour. P/NP or letter grading.

7. German Language and Culture I. (4) Lecture, four hours; discussion, one hour. Introduction to culture of high medieval court, one of great achievements of European Middle Ages. Letter grading.

German

Upper-Division Courses

103A-103B. Elementary Dutch. (4-4) Lecture, four hours; language laboratory. Course 103A is requisite to 103B. Introduction to standard language of Nether- lands and one of three standard languages of Bel- gian. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.


104A-104B. Accelerated Dutch. (6-6) Lecture, four hours; discussion, one hour; laboratory, two hours. Covers material in courses 103A, 103B, 103C in two terms rather than three. Letter grading.

113. Modern Dutch and Flemish Literature in Translation. Lecture, three hours. Readings and analysis of works by selected authors of Netherlands and northern countries such as Boon, Couperus, Hermans, Mulisch, Multatuli, and Reve and selected poets such as Campert, Gezelle, Gorter, Kloos, Lucebert, Nijhoff, van Ostade, 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 Reve and poetry by such groups as symbolist Beweging van Tachtig and post-War Beweging van Vlijt. 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.

198HC. 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 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. Under- 

9. Upper-Division Courses

102. War, Politics, Art. (5) Lecture, three hours; 
 discussion, one hour. Taught in English. Analysis of 
relationship between politics, social conditions, and 
 arts with respect to war. World Wars I and II and 
 German history to be used as model for principal 
 questions of society and philosophical thinking. P/NP 
or letter grading.

103. German Film in Cultural Context: Early Ger-
man Film. (4) Lecture, two hours; discussion, one 
 hour. Taught in English. Survey of German film be-
 tween 1895 and 1945. Examination of technical and 
 stylistic development of film from silent Expressionis-
 t 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.

M105. Tristan, Isolde, and History of Heterosexual-
 ity. (4) Same as Gender Studies M119. Lecture, 
 three hours. Taught in English, German, French, and 
 English. In-depth investigation of Tristan and Isolde 
 from Middle Ages to 20th century. Particular attention 
 to relation between representation of heterosexual 
 love in each text and contemporaneous ideas about 
 human sexuality. P/NP or letter grading.

106. Jewish Question and German Thought. (4) 
 Lecture, three hours. Taught in German. Analysis of 
 works that represent process of Jewish assimila-
 tion, disenfranchisement, and extermination, including 
 authors such as Mendelssohn, Heine, Kafka, Paul 
 Celan, Nelly Sachs, Anne Frank, and others. Letter 
grading.

107. 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 visions reflect Nobel's ideals of peace 
 and progress of human race. Texts include Weavers 
 (Hauptmann), excerpts from Buddenbrooks (Mann), 
 and Siddhartha (Hesse). Viewing of films based on 
 Lost Honor of Katharina Blum and Tin Drum. Letter 
grading.

108. 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 Germanies). Letter grading.

109. German Folklore. (4) Lecture, three hours. 
 Taught in English. Survey of various folklore genres in 
cultural context, including legends, proverbs, and cul-
tural enactments such as carnival. Letter grading.

110. Fairy Tales and Fantastic. (5) Lecture, three 
hours; discussion, one hour. Taught in English. History 
and reception of folklore collections in Europe, with 
particular attention to ideology and influence of 
Grimm's tales. Interpretation of selected tales and their 
transformations and appropriation in literature, 
 film, advertising, and pedagogy. P/NP or letter 
grading.

115. 19th-Century German Philosophy. (4) Lecture, 
 three hours; discussion, one hour. Taught in English. 
 German philosophy may be charac-
terized as philosophy that takes activity rather than 
passive subsistence to be fundamental nature of all 
things, is one of Germany's greatest gifts to humanity. 
 Exploration of second half of 20th century history of 
 German philosophy—period from Kant to Nietzsche, 
 including Hegel, Kierkegaard, and Marx. Letter 
grading.

116. 20th-Century German Philosophy. (4) Lecture, 
 three hours; discussion, one hour. Taught in English. 
 German philosophy, which may generally be charac-
terized as philosophy that takes activity rather than 
passive subsistence to be fundamental nature of all 
things, is one of Germany's greatest gifts to humanity. 
 Exploration of second half of two-century history of 
 German philosophy—period from Nietzsche through 
 Habermas, including Huygens, Gadarmer, Jaspers, 
 and Frankfurt School theorists. Letter grading.

117. German Exile Culture in Los Angeles. (4) Lec-
ture, three hours. Taught in English. Cultural and his-
torical exploration of exile as site of creative activity 
 for German writers and other artists during and after 
 World War II. General questions of cultural migration 
 and cultural transfer to be thematized. P/NP or letter 
grading.

118SL. Between Memory and History: Interviewing 
 Holocaust Survivors. (4) Seminar, two hours; field-
 work, two hours. Strongly recommended requisites: 
 prior European and Holocaust history courses. Exam-
inations, historical, and written testimony of 
 Holocaust through unique service opportunities that 
 bring students together with survivors. Question of 
 testimony approached from number of perspectives, 
 including legal, historical, and ethical, to examine 
 varied motivations and testimony. Exam-
inations of survivor testimony through classic mem-
cors in field, such as Primo Livi's The 
 Drowned and The Angel and Ruth Kluger's 
 Still Alive. Through collabora-
tion 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 German. Introduction to P/NP or letter 
grading.

141. Current Topics in Germanic Linguistics. (4) 
 Lecture, three hours. Enforced requisite: course 152. 
 Taught in German with German proficiency required. 
 Theories and methods of linguistics, with emphasis 
 on structure of modern standard German, its pho-
 nology, morphology, syntax, semantics, and prag-
 matics. Other topics include diachronic, spatial, and 
 social variation of German (i.e., its historical develop-
 ment, dialectology, and sociolinguistic dimensions). 
 Letter grading.

152. Conversation and Composition on Contem-
 porary German Culture and Society I. (4) Lecture, 
 three hours. Requisite: course 151. Taught in German. 
 Structured around themes as they emerge in contem-
 porary German texts ranging from news magazine arti-
cles 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 152. Taught in German. 
 Structured around themes as they emerge in contem-
 porary German texts ranging from news magazine arti-
cles 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 154. Taught in German. Specialized 
 language course that teaches German business ad-
 ministration, practices, and correspondence, with at-
tention to cultural nuances and differences in 
 European Union analyzed via newspaper articles and 
 Internet. P/NP or 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 cover-
ture, and culture. Principles of written and oral 
 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 skills and thorough grounding in essay 
 writing in German by considering issues 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 notion of boundaries and borders (e.g., 
 physical borders between countries; boundaries created 
 by various political ideologies; socially created bound-
 aries, such as gender, race, age, class, memory and 
 experience), ways in which people cross them, 
 and their reasons for these transgressions. Analysis 
of movies to better understand various cine-
 matic techniques, P/NP or letter grading.

158. Introduction to Study of Literature. (4) Lec-
ture, three hours. Taught in German. Introduction to 
 most important terms and resources of literary analy-
 sis that have shaped the skills in close and critical 
 reading of literary texts, develop 
 basic research techniques, acquire familiarity with ba-
 sics of literary and cultural analysis, and find pleasure 
 in pursuit of literary and cultural study. Letter grading.

159. German Cultural Studies. (4) Lecture, three 
hours. Requisite: course 152 or 153. Taught in German; 
 some theoretical readings in English. Exploration of 
 German culture in different historical con-
 texts. Examination of major issues in a variety of 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-

issues such as national borders, ethnic identity, gender relations, and commercialization of culture. Letter grading.

175. Intercultural German: Literature, Politics, Migration, and Culture. (4) Lecture, three hours. Taught in German. Close reading of some theoretical readings in English. Exploration of issues surrounding immigration and intercultural identity in Germany since 1960, with focus on period after 1990. Examination of various cultural spaces, practices, and standpoints as staged in literary and nonliterary texts, with emphasis on constructions of ethnicity, nation, race, class, and gender. Analysis of several political and cultural debates dominated by public discourses in Germany and Europe for several weeks. Discussion of several literary texts by Turkish German and other minority writers. 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 semester and may include advanced work in folklore, film, and German studies. 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 or P/NP grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed to address individual honors 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: German. (4) Seminar, three hours. Taught in German. Reading and discussion of major works from Middle Ages to baroque. Letter grading.

191. Postwar Literature. (4) Lecture, three hours. Analysis of selected works and theories of German Romanticism such as Friedrich Schlegel, Novalis, and Hoffmann, with attention to relationship between Romanticism and other periods. Letter grading.


201A. Middle High German. (4) Lecture, three hours. Taught in German. Literature after 1945 in German-speaking countries, including Heinrich Böll, Günter Grass, Friedrich Dürrenmatt, Elfriede Jelinek, and Christa Wolf with view to their particular emphasis on developing facility in reading.

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. Taught in German. Reading and interpretation of major works of German Renaissance and humanist writers. Letter grading.

209. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter or P/NP grading.

213. Topics in Literature and Film. (4) Lecture, three hours. Analysis of narrative prose genres and cultural debates that dominated media and public discussions in Germany and Europe for several weeks. Discussion of several literary texts by Turkish German and other minority writers. Letter grading.

210A. Naturalism, Symbolism, and Expressionism. (4) Lecture, three hours. Analysis of selected works and theories of German Romanticism such as Friedrich Schlegel, Novalis, and Hoffmann, with attention to relationship between Romanticism and other periods. Letter grading.

210B. 20th-Century Novel to 1945. (4) Lecture, three hours. Prose works in first half of 20th century as they express war experience, crisis of consciousness, and cultural conflicts between wars, as well as in 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. Focus on development of various models of literary interpretation and cultural models. Impact of Thirty Years' War on German literary production and reception in German baroque. Letter grading.

214. Advanced Study of Contemporary Literature and Culture. (4) Lecture, three hours. Taught in German. Literature after 1945 in German-speaking countries, including Heinrich Böll, Günter Grass, Friedrich Dürrenmatt, Elfriede Jelinek, and Christa Wolf with view to their particular emphasis on developing facility in reading.

217. Goethe’s Faust. (4) Lecture, three hours. Taught in German. Reading and discussion of representative works of Goethe from his early period (Die Leiden des jungen Werther) through maturity and old age (West-östlicher Divan). Students work with digital humanities methods to improve German language competency and evaluate Goethe’s global influence on Western intellectual history. Letter grading.

218. Literature and Film. (4) Lecture, three hours. Taught in German. Reading and discussion of representative works of Goethe from his early period (Die Leiden des jungen Werther) through maturity and old age (West-östlicher Divan). Students work with digital humanities methods to improve German language competency and evaluate Goethe’s global influence on Western intellectual history. Letter grading.

220A. 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.

220B. 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.

224. Early Modern German Literature. (4) Lecture, three hours. Taught in German. Reading and interpretation of major works of German Renaissance and humanist writers. Letter grading.

229. 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.

230. Survey of Theory in Historical Linguistics. (4) Lecture, three hours. Survey of major models of linguistic interpretation and schools of thought such as hermeneutics, psychoanalytic criticism, social historical approaches, semiotics, structuralism, and poststructuralism. Topics vary with instructor. Letter grading.

230A. 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.
231. Gothic. (4) Discussion, three hours. Systematic study of phonology and grammar of Gothic language, with readings in Wulfila's translation of Bible and introduction to history of Goths and their place in development of modern Europe. S/U or letter grading.

232. Old High German. (4) Discussion, three hours. Introduction to earliest phases of German literature, with extensive readings in major documents of that period (750 to 1050). Emphasis on grammatical interpretation of these documents and identification of dialects used in their composition. S/U or letter grading.

233. Old Saxon. (4) Discussion, three hours. Introduction to study of earliest documents in Old Low German. Readings in Heliand and study of Old Saxon Grammar may be applied.

C235. Linguistic Theory and Grammatical Description. (4) Lecture, three hours. Enforced requisite: course 140 or Linguistics 20. Taught in English with German proficiency required. Problems in structure of Dutch and German, considered from theoretical frameworks such as sign-oriented linguistics, functional linguistics, discourse grammar, and cognitive linguistics. Discussion of formal linguistic approaches. Concurrent high school with course C142. Graduate students meet as group one additional hour each week and write research papers of greater length and depth. Letter grading.

251. Seminar: German Linguistics. (4) Seminar, three hours. Topics selected from field of historical German phonology and syntax according to needs and preparation of students enrolled (e.g., West Germanic problem and classification of Germanic languages, development of Germanic verbal and nominal morphology, proto-Germanic syntax). S/U or letter grading.


256. Seminar: Enlightenment. (4) Seminar, three hours. Selected problems in cultural, literary, and philosophical history. May include modern critiques of Enlightenment thought. Letter grading.

257. Seminar: Age of Goethe. (4) Seminar, three hours. Selected topics in literature and culture between forms of government and precarious lives of others—Jews, the stateless, pariahs. Evaluation within comparative and transnational context of political action, public sphere, amor mundi, moral judgment, individual or collective responsibility, violence, and literature. Letter grading.

275. Teaching Apprentice Practicum. (1 to 4) Seminar, three hours. Enforced requisite: course 140 or Linguistics 20. Taught in English with German proficiency required. Problems in structure of Dutch and German, considered from theoretical frameworks such as sign-oriented linguistics, functional linguistics, discourse grammar, and cognitive linguistics. Discussion of formal linguistic approaches. Concurrent high school with course C142. Graduate students meet as group one additional hour each week and write research papers of greater length and depth. Letter grading.

C251. Teaching Apprentice Practicum. (1 to 4) Seminar, three hours. Enforced requisite: course 140 or Linguistics 20. Taught in English with German proficiency required. Problems in structure of Dutch and German, considered from theoretical frameworks such as sign-oriented linguistics, functional linguistics, discourse grammar, and cognitive linguistics. Discussion of formal linguistic approaches. Concurrent high school with course C142. Graduate students meet as group one additional hour each week and write research papers of greater length and depth. Letter grading.

495. Approaches to Foreign Language Pedagogy. (4) Seminar, one hour; discussion, two hours. Issues include development of current theories of second-language acquisition, effects of these theories on language teaching, sociolinguistics, assessment techniques, use of multimedia in foreign language pedagogy, and design of syllabi for basic foreign language courses. S/U grading.

496. Directed Individual Study or Research. (4) Tutorial, three hours. To be arranged with faculty member who directs study or research. Required research paper must be filed with department chair. S/U grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4) Tutorial, three hours. 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 for credit. 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 documents) as primary focal points to examine ways in which one heritage culture, that of Ashkenazic Jews, adapted to forces of modernity (urbanization, immigration, radical social movements, assimilation, and destructive organized anti-Semitism) from late-19th century to present. Exploration of transformational themes in depth through viewing of selected films, readings, research 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. 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/No Credit grading.

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

Upper-Division Courses

101A. Elementary Yiddish. (4) Lecture, four hours. Introduction to grammar; instruction in listening, speaking, reading, and writing skills. P/NP or letter grading.


102B-102C. Intermediate Yiddish. (4) Lecture, three hours. Requisite: course 101C. Course 102B is requisite to 102C. Grammatical exercises, reading and linguistic analysis of texts, conversation. P/NP or letter grading.


121C. Special Topics in Yiddish Literature in English Translation. (4) Lecture, three hours. Varying topics of importance and relevance to Yiddish literary study. Reading and analysis of wide range of 19th- and 20th-century literature. P/NP or letter grading.

130. Introduction to Yiddish Culture and Language through Film. (4) Lecture, three hours. Introduction to Yiddish language and literature on a nonclassic level. Yiddish films and documentaries as integral tools for accessing culture associated with this heritage language.viewing and discussion to gain deeper understanding and appreciation of complexity and scope of Yiddish culture and in particular of annihilated Yiddish civilization of 20th century. These films represent most accessible way available to hear Yiddish spoken in fluent, natural manner. P/NP or letter grading.


131C. Special Topics in Yiddish Literature. (4) Lecture, three hours. Requisite: course 131A or 131B. Varying topics of importance and relevance to Yiddish literary study. Reading and analysis of wide range of 19th- and 20th-century literature. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 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/No Credit grading.
individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated. P/NP or letter grading.

197. Individual Study in Yiddish. (2 to 4) Tutorial, to be arranged by limited to juniors/seniors. Individual intensive study or more specialized investigation of topics in Yiddish, with scheduled meetings to be arranged between faculty member and student. 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
596. Directed Individual Study or Research in Yid dish. (4) Tutorial, to be arranged with faculty member who directs study or research (course section to be identified by two-letter code using initials of sponsoring instructor—see department for ID number). May be repeated once. S/U grading.

597. Preparation for PhD Qualifying Examinations. (4) Tutorial, to be arranged with faculty member who directs study (see department for ID number). S/U grading.

GERONTOLOGY
Interdisciplinary Minor
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Gerontology
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Fernando M. Torres-Gil, PhD (Public Policy, Social Welfare)
Steven P. Wallace, PhD (Community Health Sciences)

Scope and Objectives
The worldwide expansion of the older adult population ensures that issues regarding aging will dominate our environmental, economic, social, political, psychological, and medical concerns and endeavors well into the twenty-first century. The undergraduate minor in Gerontology (1) provides students with a foundation understanding of the current state of science related to human aging, (2) enables students to assess longevity’s potential contribution and challenge to contemporary society, and (3) provides students with an appreciation of opportunities to contribute, personally and professionally, to a diverse aging society.

Undergraduate Study
Gerontology Minor
To enter the Gerontology minor, students must have an overall grade-point average of 2.0 or better and a grade of B or better in Gerontology M108.

Required Upper-Division Courses (28 to 32 units): 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 an adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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

Upper-Division Courses
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 variety of fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) (Same as Social Welfare M104D.) Lecture, four hours. Examination of theoretical models and concepts of policy process, with application to aging policy. Analysis of policy 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 Social Welfare 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 frameworks to increase relevance of aging for 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 sociohistorical context. Letter grading.

M119O. Psychology of Aging. (4) (Same as Psychology M119O.) Lecture, four hours. Requisite: Psychology 115. Designed for juniors/seniors. Aging refers to developmental changes occurring at end stages of life. Some alterations that occur represent improvements, others are detrimental. Examination of impact of aging process on mental phenomena and exploration of ways in which positive changes can be maximally utilized and impact of detrimental alterations minimized. P/NP or letter grading.

M119X. Biology and Behavioral Neuroscience of Aging. (4) (Same as Psychology M119X.) Lecture, three hours. Designed for juniors/seniors. Biologic mechanisms of aging process and its terminations, phase, death, have been increasingly studied in recent years. Establishment of what is known experimentally about bio behavior 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. Sexu ality in aging from psychological, physiological, physical, and psychosocial perspectives, with emphasis on differences between females and males concerning physical and social changes that occur with aging and how this impacts on emotional well being and human sexual response. P/NP or letter grading.

M142SL. Intergenerational Communication across Lifespan. (4) (Same as Social Welfare M142SL.) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. What do you say to your parents in conversation? 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
of people with disabilities, young and old? What demands have been made over time by disability advocates? How has government addressed demands of disability 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 demographic, economic, and political factors contribute to the evolution of public policy responses? P/NP/letter grading.

189. Directed Research or Senior Project in Gerontology. (4) Tutorial, one hour; internship (approved community setting), eight hours. Requisites: course M108, or GE Cluster 80A and 80B. Limited to juniors/seniors. Internship in applications of gerontology in supervised setting in community agency or business coordinated by Center for Community Learning. Students meet on regular basis with internship coordinator and must submit weekly writing assignments and final paper at end of term. Eight units of 195CE (or 199) are required for successful completion of Gerontology minor. Individual contract with supervising placement sponsor required. Information and contracts may be obtained from Gerontology Advising Office, (310) 206-8966, paul@spa.ucla.edu. Letter grading.

199. Directed Research or Senior Project in Gerontology. (4) Tutorial, to be arranged. Requisites: course M108, or GE Cluster 80A and 80B. Limited to juniors/seniors. Supervised individual research under guidance of gerontology faculty mentor. Submission of weekly writing assignments and research paper at end of term. Eight units of 199 (or 195CE) required for successful completion of minor. Individual contract required. Information and contracts may be obtained from Gerontology Advising Office. Letter grading.

Global Health
Interdisciplinary Minor
College of Letters and Science
10373 Bunche Hall
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Los Angeles, CA 90095-1487

Global Health
310-206-6571

Minor e-mail
Michael A. Rodriguez, MD, MPH, Chair

Faculty Committee
David H. Gore, PhD (World Arts and Cultures/Dance)
Michael F. Lofchie, PhD (Political Science)
Ninez A. Palace, MPP, MPH (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, 80B, 80CW, Community Health Sciences 91, Global Studies 1, History 3D, Honors Collegium 1, 14, 26, International and Area Studies 1, Molecular, Cell, and Developmental Biology 60, 70, Nursing 50, Statistics 13, World Arts and Cultures 2, 33.

Required Upper-Division Courses (20 to 25 units):
Global Health 100 and four courses from the following theme areas, with a maximum of two courses from any single area:
Art: World Arts and Cultures 144, C158, C159, 160.
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 Collegium 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.

Global Health
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 politics 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 changed. Offered in summer only. P/NP or letter grading.

150. Migration and Health. (4) Lecture, three hours; discussion, one hour. Introduction to history, current status, and future of migration and health using social determinants of health model to foster multidisciplinary analysis of status of migrant health around world. Exploration of social determinants of health affecting migratory 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.
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.


GLOBAL JAZZ STUDIES

Interdepartmental Program
Herb Alpert School of Music
2520 Schoenberg Music Building
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School of Music

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Cheryl L. Keyes, PhD (African American Studies, Ethnomusicology)
Steven J. Loza, PhD (Ethnomusicology)
James W. Newton, BM (Ethnomusicology)
Shana L. Redmond, PhD (Musicology)

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Duane C. Benjamin
Clayton Cameron, BM
Charles A. Harrison, MM
Tamir Hendelman, BM
Wolf Marshall, BA
Hilton M. Oba, MA
Charles Owens, BA

Adjunct Professor
Eddie S. Meadows, PhD

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 advanced students’ skills individually and playing in small combos and larger ensembles; 2) musicianship and music theory courses in which students master improvisation, basics of music theory, arranging, and composition; and 3) broad understanding of the historical and societal context of the development and advancement of jazz in the United States and globally.

Undergraduate Study

The Global Jazz Studies major is a designated capstone major. The capstone project, usually done in the senior year, is tailored to each student and includes a seminar class (course 186A) and a capstone presentation such as a recital, lecture-demonstration, or lecture-recital (186B). The capstone experience provides an appropriate vehicle for the faculty to assess the students’ accomplishments during their tenure in the program.

Global Jazz Studies BA

Learning Outcomes

The Global Jazz Studies major has the following learning outcomes:

- Advanced-level performance of multiple jazz styles across historical periods and contemporary jazz performance practices
- Demonstrated proficiency in styles representative of Africa, the African diaspora, and at least one other world musical culture
- Demonstrated advanced skill and understanding in improvisation, musical structure and instrumentation, composition, arranging, timbre, and expression
- Demonstrated basic proficiency in areas of programming, recording, and/or post-production
- Demonstrated interdisciplinary knowledge of global jazz as text and method
- Interrogation of the concerns of jazz as a comprehensive practice, including its capacity to transform the musical, political, and 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 91P. 4 units from 68A through 68B and/or 91A through 91Z (except 91E and 91P); Global Jazz Studies M12A, M12B (10 units), 12 units from 17A through 71I (students must enroll in a studio class 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 171I, 4 units of small jazz combo (Global Jazz Studies 175), 8 units of large jazz ensemble (Global Jazz Studies 176A through 176G). Students must enroll in a studio class and at least one combo or ensemble each quarter.


Scholarly foundations (24 units)—Global Jazz Studies 101, M111; 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. (5-6) (Same as African American Studies M12A, M12B and Ethnomusicology M12A-M12B.) Lecture, four hours; discussion, one hour. P/NP or letter grading. M12A. Sociocultural history and survey of African American music covering Africa and its impact on 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. 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. (6) (Same as Ethnomusicology M25.) Lecture, four hours; discussion, one hour. Sociocultural history and survey of contemporary popular music, including its historical development 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. Survey of development of jazz in American culture. Discussion of different compositional/performance techniques and approaches that distinguish different sub-styles of jazz from one another. Examples of visual, physical figures that shape development of jazz from its early years through modern jazz. Important historical societal 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. M50A-50B; M109. Women in Jazz. (4–4) Lecture, four hours; discussion, four hours; outside study, eight hours. In-depth analysis of jazz styles and repertoire intended for students with music backgrounds. Letter grading. M50C. Improvisation. (4) Lecture, two hours; outside study, four hours. Focus on various aspects of jazz composition. Differentiation between improvisation and notated composition, as well as between compositional ideas and the introduction to basic arranging concepts. Letter grading. M50D. Early Jazz to Swing Era. (2-2-2) 125A, Bebop to Avant-garde; 125B, Jazz since Sixties.

125A-125B-125C. Jazz Composition and Arranging. (2-2-2) (Formerly numbered Ethnomusicology 125A-125B-125C.) Lecture, two hours; outside study, four hours; outside study, eight hours. Development of composition. May be repeated for credit without limit. Letter grading.

127A-127B-127C. Jazz Keyboard Harmony I, II, III. (2-2-2) (Formerly numbered Ethnomusicology 127A-127B-127C.) Lecture, two hours; outside study, four hours. Course 127A with grade of C or better is enforced requisite to 127B; course 127B with grade of C or better is enforced requisite to 127C. Study of jazz harmony through use of piano keyboard. Letter grading.

128A. Exploration in Rhythms. (2) (Same as Ethnomusicology M128.) Lecture, two hours; outside study, four hours. Preparation: ability to read melodic or rhythmic notation. Investigation and exploration of musical time and rhythm in 20th- and 21st-century classical, jazz, world, and popular music. Concepts explored include meter, pulse, rhythmic cycles, hemiolas, and polyrhythms. P/NP or Letter grading.

129A-129B-129C. Jazz Theory and Improvisation. (2-2-2) (Formerly numbered Ethnomusicology 129A-129B-129C.) Lecture, four hours; outside study, eight hours. Elements of jazz theory and improvisation. Letter grading. 129A. Basic jazz harmonic constructions, as well as melodic, rhythmic, and harmonic concepts, and how to apply those elements to personal effort in improvisations. 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 120A or 20B or 20C. Anthro 3 or 4. 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 question through personal demonstrations, Analytical resources and historical knowledge of musicians and ethnomusicologists combined with those interested in jazz as cultural tradition. P/NP or letter grading.

M131. Development of Latin Jazz. (4) Same as 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.

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 today as Latin jazz. P/NP or letter grading.

165. Selected Topics in Composition. (4) (Formerly numbered Ethnomusicology C165.) Lecture, four hours; outside study, eight hours. 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 succeeded conceptually approached use of extended compositional forms. Examination of way in which world music traditions have interfaced with jazz and other world traditions of music to create new musical languages. Use of concepts, stylistic approaches, inspiration from literature, visual arts, and other sources to develop student compositions. May be repeated once for credit. Letter grading.

171A-171I. Instruction in Advanced Jazz Performance. (2 each) (Formerly numbered Ethnomusicology 171A-171I.) 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; 171H. Voice.

178A. Jazz Humanities. Combo. (2) (Formerly numbered Ethnomusicology 177.) 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 limitation. Letter grading. 176A. Contemporary Jazz Ensemble; 176B. Charles Mingus Ensemble; 176C. UCLA Jazz Orchestra; 176D. Latin Jazz Big Band; 176E. Ellington Jazz Ensemble; 176F. Jazz and Intercultural Improvisation; 176G. Afro-Cuban Ensemble. Open enrollment.

186A. Capstone Seminar. (3) Seminar, two hours; outside study, seven hours. Limited to senior Global Jazz Studies majors. Tutorial (e.g., lecture-demonstration or lecture-recital). Students meet on regular basis with instructor and provide weekly reports of their experience. May be repeated for credit. P/NP or letter grading.

188. 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) Tutorial, up to two 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.

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 classroom instruction and hands-on training in outreach program. Participation in theoretical discussions of jazz education and application of these theories in elementary and secondary music and social studies classrooms. P/NP or letter grading.

197. Individual Studies in Global Jazz Studies. (2 to 4) Tutorial, one hour; outside study, five to 11 hours. Preparation: 3.0 grade-point average. Limited to senior Global Jazz Studies majors. Individual intensive study with scheduled meetings arranged between student and instructor. May be repeated for credit. P/NP or letter grading.
199. Directed Research in Global Jazz Studies. (2 to 4) Tutorial, to be arranged. Limited to junior/senior Global Jazz Studies majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 6 units. Individual contract required. Letter grading.

GLOBAL STUDIES
Interdepartmental Program
College of Letters and Science
10359 Bunche Hall
Box 951487
Los Angeles, CA 90095-1487

Global Studies
310-825-5187
Program e-mail: globalstudies@hum.ucla.edu

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Hannah C. Appel, PhD (Anthropology) 
Laurie K. Hart, PhD (Anthropology) 
David D. Kim, PhD (Germanic Languages)

Purnima Mankekar, PhD (Asian American Studies; Film, Television, and Digital Media; Gender Studies)
Saloni Mathur, PhD (Art History)
Eric Min, PhD (Political Science)
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Dominic R. Thomas, PhD (Comparative Literature, French and Francophone Studies, Germanic Languages)

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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 interconnectedness among nation-states, ethnic and religious groups, and individuals. Culture and society courses concentrate on the tensions between local ways of life with deep historical, linguistic, ethnic, and religious roots; and today’s pressures for transnational cultures and multiple identities, fueled by the communication of ideas and the movement of people all around the world. Governance and conflict courses focus on challenges to the nation-state from forms of governance above (regional and global forms of governance) and below (autonomy and secessionist movements); and from security threats beyond interstate warfare (ethnic conflict, terrorism, civil wars). Markets and Resources courses address the interactions among global, regional, national, and subnational economic processes over resources and market dynamics; their effects on different societies with respect to economic growth, poverty, inequality, the environment; and the interactions among market forces, political institutions, and public policy.

The curriculum draws on insights from disciplines across the humanities and social sciences to give students the theoretical and methodological skills and knowledge base necessary to understand this complex and rapidly changing world.

Undergraduate Study

The Global Studies major is a designated capstone major. As students progress through the major, they move from a set of broad themes, theories, and perspectives to a more specialized focus about which they develop a specific research expertise and write a thesis. In completing the capstone, students should demonstrate an appropriate mastery of a specialized area of global studies and a critical understanding of current scholarly concerns, literatures, and debates. They should also be able to identify and analyze primary sources and use those sources and appropriate scholarly literature to design and carry out a research project.

Global Studies BA

Capstone Major

Learning Outcomes

The Global Studies major has the following learning outcomes:

- Critical thinking about basic political processes, institutions, and concepts as they operate in different national and cultural contexts
- Impartial evaluation of arguments
- Application of mathematical and logical reasoning to political processes
- Use and evaluation of statistical and other types of evidence in arguments
- Recognition of limits of quantitative and non-quantitative analysis
- Knowledge of diverse theories of politics acquired through critical engagement with texts, media, and contexts
- Location, evaluation, and use of information and scholarship to place political events in broader historical, cross-national, and theoretical contexts
- Employment of cultural, hermeneutical, normative, and historical approaches
- Written and oral arguments using appropriate evidence, with sensitivity to opposing perspectives, about significant political processes, events, and concepts

Admission

Admission to the Global Studies major is by application only and is highly competitive, with only a limited number of students admitted each year. To be eligible to apply, UCLA students must have completed all nonlanguage preparation for the major courses and one modern foreign language equivalent to level 3 by the end of the term in which they are applying. Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and the UC grade-point average for all preparation courses must be a minimum of 3.25. In addition, students must have earned a grade of B or better in Global Studies 1.

The application period is 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, Ethnomusicology 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 premajor 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 higher 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 interconnectedness that characterize the contemporary world. The minor is designed to complement and enrich studies in their major.

To enter the minor, students must (1) be in good academic standing (minimum 2.0 grade-point average) and (2) have completed Global Studies 1 and one course in two of the following three categories: (a) culture and society—Anthropology 3, 4, Asian 70C, Asian American Studies 10, Chicana and Chicano Studies 10B, Comparative Literature 1C or 2C, 1D or 2D, 4CW 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 42, 44, World Arts and Cultures 20, or 33, (b) governance and conflict—History 10B, 22, Political Science 10, 20, 50, 50R, or Sociology 1, and (c) markets and resources—Economics 1, 2, Environment 12, Clusters M1A, or Sociology 51.


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 globalization. Topics 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. Limited to 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 different topics. 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 lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

5. Honors Contracts. (1) Seminar, three hours. 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 of 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 requisite: course 1. 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 requisite: course 1. Exploration of globalization of culture and its effect on world affairs, sovereignty, and international system of nation-states. May be repeated for credit with topic change. Letter grading.

110A. Globalization in Context. (5) Lecture, six hours. Requisite: course 100B. Corequisite: course 110B. Culture, economy, history, and politics of different locations around world and how they are affected by globalization. Field trips included to gain first-hand experience of these processes. Offered in summer only. P/NP or letter grading.


160. Selected Topics in Global Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more topics related to global studies. May be repeated for credit with topic change. P/NP or letter grading.

188A-188B. Special Studies in Global Studies. (4-7) 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 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.
Des-
gined 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.

191. Variable Topics Research Seminars: Global
Studies—Senior Seminar. (4) Seminar, three hours.
Enforced requisites: courses 110A, 110B. Limited to
senior Global Studies majors. Organized on topics
basis with readings, discussions, papers, and devel-
opment of culminating project. May not be repeated
for credit. 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 innova-
tive programs with guidance of faculty members. May
not be applied toward major requirements. May be re-
peated for credit. P/NP grading.

(2) Seminar, two hours. Requisites: courses 110A,
110B. Limited to senior Global Studies majors. Dis-
cussion of research methods regarding various ap-
proaches to analysis and evaluation of globalization
and current literature in field in preparation for senior
thesis. May be repeated for credit. Letter grading.

199. Directed Research in Global Studies. (4) Tuto-
rial, to be arranged. Limited to juniors/seniors. Super-
vised individual research under guidance of faculty
mentor. Culminating paper required. May be applied
toward requirements via petition. May be repeated
for credit. Individual contract required. Letter grading.

199A–199B. Directed Individual Research in Global
Studies. (2–4) Tutorial, one hour. Limited to senior
Global Studies majors. Supervised individual research
or investigation under guidance of faculty mentor. In-
dividual contract required. 199A. Requisite: course
191. Research, discussion, and planning of senior
thesis. In Progress grading (credit to be given only on
completion of course 199B). 199B. Requisite: course
199A. Final drafting and submission of senior thesis.
Culminating paper of 35 to 50 pages required. Letter
grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Semi-
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.

Graduate Student Professional Development

Graduate Division
1255 Murphy Hall
Box 952801
Los Angeles, CA 90095-2801

Graduate Division
310-825-3819
Graduate Academic Services e-mail

Graduate Professional Student Development

Graduate Course
495CE. Supervised Preparation for Community-
Engaged Teaching. (4) Seminar, two hours. Suitable
for graduate students in any discipline. Introduction to
best practices for experiential learning and academic
civic engagement, with emphasis on critical service
learning pedagogy and strategies for collaborating ef-
ficaciously 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 rec-
ognized residency program, medical school education, prestigious fellowships, and ongo-
ing 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 in-
tegral component of the program of instruction.

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

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Professors

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Wasserman Professor of Health Policy
Management)
Ninez A. Ponce, MPP, PhD
Nader Sheirat, MPH, PhD, in Residence
Thomas H. Rice, PhD
Linda Rosenstock, MD, MPH
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Brennan M. Spiegel, MD, MSHS, in Residence
Kenneth B. Wells, MD, MPH, in Residence
Frederick J. Zimmerman, PhD

Professors Emeriti

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Barbara Berman, PhD
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Emmeline Chuang, PhD
Aria Fallah, MD, MSc, FRCS, FAANS, in Residence
Corina Moucharaoud, ScD

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Thomas M. Priselac, MPH
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Geoffrey F. Joyce, PhD
Beth A. Glenn-Mallouk, PhD
Yvonne N. Flores, PhD, MPH

Scope and Objectives
The field of health policy and management examines the organization and financing of various health sector and wider social system activities to prevent and treat disease. This includes programs in both the public and private sectors at all levels—local, state, and federal.

Faculty members come from such diverse fields as economics, management, law, statistics, operations research, planning, medicine, history, sociology, and political science. These diverse disciplines are harmonized by their deviation to solving problems—through quantitative, qualitative, and mixed method analyses—in the financing and delivery of health policy and management, with a focus on populations rather than individual patients.

The Department of Health Policy and Management offers both practice-oriented and research-oriented graduate programs. The primary professional degree, the Master of Public Health (MPH), includes training in various aspects of health administration such as policy formulation, health planning, organization, and management. For information on the MPH and concurrent degree programs, see "Health Policy and Management / 429"

Health Policy and Management

Graduate Study

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

Graduate Degrees
The Department of Health Policy and Management offers Master of Science (MS), Doctor of Philosophy (PhD), and Executive MPH (EMPH) degrees in Health Policy and Management.

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of critical thinking about topics of current 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), two hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in 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 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 it. 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-tobacco efforts in U.S., and international trends in tobacco use. Concurrently scheduled with course C221. Letter grading.

140. Foundations of Maternal and Child Health. (4) Seminar, four hours. Introduction to field of maternal and child health, with focus on major issues affecting health and well-being of children and families over life course. Emphasis on health, prevention, and supportive programs at different stages of child's life; application of life course health development framework to understand health disparities and implications for policy and practice. 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. (4) Seminar, three hours. Introduction to some key theoretical themes in American Indian studies and exploration of methods that can be used. Letter grading.

M203. Applied Microeconomics. (4) Lecture, four hours. Prerequisite: Mathematics 3A or 3B or 31A. Course M203 is requisite to M203B. 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.

M203B. Applied Microeconomics. (4) Lecture, four hours. Prerequisites: course M203A and one course from Economics 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 different calculus. Letter grading.

M204A-M204B-M204C. Seminars: Pharmaceutical Economics and Policy. (1–1–2) (Same as Economics M204L-M204M-M204N) Seminar, three hours every other week. Requisites: course M236. Limited to graduate public health and economics students. Various topics in economics of pharmaceutical industry, including rates of innovation, drug regulation, and economic impact of pharmaceuticals. In Progress (M204A, M204B) and Intensity (M204C).

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. 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 act, function, and 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 development of strategies with intent being improvement of student managerial competencies and on development of skills to manage operational processes in healthcare services, primarily directed to improving effectiveness, efficiency, performance, and quality of healthcare services. Quality improvement (QI) techniques such as performance measurement, rapid cycle testing, breakthrough series, and interorganizational collaboration benefit quality and productivity. Letter grading.

215B. Applied Methods for Improvement/Implementation Science. 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 clinic 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 improvement. Letter grading.


217. Evidence-Based Medicine and Organizational Change. Lecture, four hours. Requisites: courses 200A, 200B, M222. Designed for graduate students in public health and health sciences 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.

C221. Tobacco: Prevention, Use, and Public Policy. (Formerly numbered CM221.) Lecture, four hours. Designed for graduate and upper-division undergraduate students. Study of tobacco use and its health consequences, including interplay of historical, biological, sociocultural, political, and economic forces with knowledge, attitudes, and behaviors 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-225B. Health Services Research Design. (6–8) Lecture, four hours; laboratory, two hours. Limited to departmental MS and PhD students. Letter grading. 225A. Introduction to scope of health services research and design of health services research, choice and assessment of measures for such research, and methods for studies involving direct data collection. Broad overview to conducting health services research, alternative research paradigms, building conceptual models of what students are trying to study, designing and testing measures, and direct data collection issues of survey and experimental research, sampling, community engagement, and research ethics. 225B. Requisite: course 225A. Development of conceptual models for health services research, identification and use of secondary data sources, study design, and its operationalization through regression models.

225C. Research Methods for Improvement/Implementation Science. Lecture, four hours. Enforced requisites: course 225B. Design and implementation of studies of dynamic interventions, including improvement initiatives and pragmatic clinical trials. Provides skills in research methods for improvement and implementation studies in clinical settings (including community-based settings) and health systems. Completion of improvement research projects that demonstrate student competence in design and implementation. Fundamentals in research design and methods for conducting rigorous inferential and non-inferential evaluation in real world of implementation science, with emphasis on methods for generalizing results of improvement and implementation studies involving dynamic models on case studies and applications so students gain skills in design and implementation. Letter grading.

226A-226B. Readings in Health Services Research. Seminar (2-6) Seminars for departmental MS and PhD students. Introduction to research literature in health services research, including literature on key conceptual models, classic empirical studies, and current research utilizing 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 public policy. Emphasis on current research issues and applications so students gain skills in design and implementation. Letter grading.

227B. Special Topics in Health Services: Seminar Series. (2 to 4) Seminar, two hours. Designed for doctoral students. Emphasis on review and discussion of ongoing research projects by faculty members and students, with discussion to determine relevant methodological and policy issues, as well as to provide constructive criticism. May be repeated for credit with topic change. Letter grading.

228. Introduction to Mixed Methods Research. (4) (Same as Community Health Sciences M228.) Seminar, two hours. Limited to graduate students. Highly recommended: courses 225A and 225B, or completion of coursework in basic research design and methods. Introduction to mixed methods research, with emphasis on its application to public health research. Equips students with skills to critique mixed method research designs and to design mixed methods research investigation for health issue of interest. Study of different mixed methods research designs commonly used in public health and health services research, including feasibility studies, convergent parallel design, sequential mixed methods, and combinative design of qualitative and quantitative methods. S/U or letter grading.

231. History of Public Health. (4) Discussion, three hours. Designed for doctoral students. Emphasis on topics which illuminate current issues in public health policy. Discussion of historical perspectives on healthcare providers, healthcare institutions, health care reform movements, public health activities, childbirth, and AIDS. 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 master's training in health 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 own leadership style and identify opportunities to further develop their leadership abilities. Letter grading.

233. Health Services Organization and Management Theory. (4) Lecture, four hours. Preparation: two upper-division social sciences courses. Requisite: course 100. Application of contemporary organization and management theory to systems that provide personal healthcare services. Examination of characteristics, missions/goals, structure, and processes of health services organizations. S/U or letter grading.


M226. 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 Services 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, mathematical, and methodological tools 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 and public health interventions 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-Effective-ness Analysis. (4) Lecture, four hours. Requisites: courses 200A and 200B, or M233. Advanced topics which illuminate current issues in public health policy. Discussion of historical perspectives on healthcare providers, healthcare institutions, health reform movements, public health activities, childbirth, and AIDS. S/U or 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 enhanced view of policy issues beyond those covered in 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 general health economics. Emphasis on special characteristics of health and healthcare and how these characteristics can result in market failure and various policy tools that can be usefully applied to them. Interdisciplinary course only for developed country that has traditionally relied on private insurance, course goes into more detail on that topic. Alternative conceptual models to traditional market failure, discussion of proposed U.S. reforms, and examination of systems in selected other countries. Letter grading.

249. Advanced Research Topics in Health Policy and Management. (2 to 4) Seminar, to be arranged. Limited to Public Health graduate students. Seminars may be organized in special topics. Advanced study and analysis of current topics in health policy and management. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit with topic change. S/U or letter grading.

249A-249Z. Special Topics in Health Services. (2 to 4 each) Hours to be arranged. Requisites for each offer being announced in advance by department. Graduate seminar covering current issues and special topics in health policy, health financing, and organization and administration of health services. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change.

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 treatment of number of topics in health economics, (Same as Public Policy M266.) Seminar, four hours. Required of all graduating MPH students. 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.

251. Quality Improvement and Informatics. (4) Lecture, four hours. Requisites: course 100, Biostatistics 100A. Introduction to concepts of healthcare quality measurement, process improvement, and information systems, as well as organizational aspects of implementation science. S/U or letter grading.

M252. Medicare Reform. (4) (Same as Public Policy M267.) Lecture, three hours; outside study, nine hours. Designed for postdoctoral fellows and advanced PhD students. Participation in peer review process for academic journal, Health Psychology, with consideration of interface between behavioral science, health, and medicine. Reading and discussion of submissions and advising of editor for suitability for full review. S/U or letter grading.

249S. Introduction to Implementation Science. (4) Seminar, four hours. Preparation: good grasp of social science research methods. Designed to provide basic understanding of science of implementing innovations in complex systems, and approaches to addressing implementation issues. 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.

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behavior and change in healthcare and public health environments. Active paradigms in organizational theory, particularly perspectives important for understanding delivery system change. Examination of empirical research to clarify how important organizational constructs have been operationalized and to highlight methodology-related challenges of studying organizations in healthcare/public health. Letter grading.

M420. Children with Special Healthcare Needs: Systems and Services. (Same as Community Health Sciences M420 and Social Welfare M290L) Lecture, four hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices related to the care of children with special healthcare needs. Coverage of educational, behavioral, and skill-oriented interventions involving a wide variety of professionals, parents, and community members. Students will develop skills in identifying and addressing the needs of children with special healthcare needs. 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 issues in evaluation is assumed. Development of critical thinking skills in integrating theory into program implementation and evaluation design. Development of student ability to apply various evaluation methodologies most appropriate to contextual settings both within and outside health care and public health, and consideration of advantages and disadvantages of potential design. Examination of shift in field of evaluation over past decades from program impact to global effectiveness (i.e., internal validity) to more balanced approach considering efficacy in content of feasibility, reach, and efficiency. Exterior validity and evaluation design assumptions (e.g., pragmatic and adaptive trials). Letter grading.


428. Child and Family Health Program Community Leadership II. (Same as Community Health Sciences M428L) Seminar, two hours. Designed for graduate students. Examination of characteristics of community-based organizations (CBOs) and role of leadership in decision-making process involving major issues facing maternal and child health delivery system, including unique financial characteristics of healthcare facilities, third-party reimbursement, cost finding and rate setting, operational and capital needs, and internal and external accountability. Letter grading.


434. 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 competencies in advocacy to policy-making processes and influencing policy agendas. Letter grading.


438. Issues and Problems of Local Health Administration. (4) Lecture, three hours. Preparation: one health services course other than 100A, 100B, 100C, 100D. Overview of administrative issues currently faced by local health departments, including program planning, budgeting, staffing, control and accountability, budgeting, auditing, and risk management. S/U or 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.

540B. Health Information Systems: Organization and Management. (4) Lecture, two hours; laboratory, three hours. Requisites: course 440A. Health and administrative research using statistical principles, principles of planning for routine and special studies. Individual investigation in methods of obtaining and processing data to meet needs of programs in institution and agency, exposure to statistical princi- ples and 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 healthcare 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.


5449A-M449B. Child Health, Programs, and Policies. (4-4) (Same as Community Health Sciences M436A-M436B. Lecture, four hours. Requisites: 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.


596. Directed Individual Study or Research. (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.

597. Preparation for Master’s Comprehensive or Doctoral Qualifying Examinations. (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.

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.
Adjunct Associate Professor
Amir Alexander, PhD

Scope and Objectives
History is the study of the past of our own society and how it emerged out of the traditions that produced it. At the same time, self-knowledge for students of history comes not only from self-discovery, but also from a comparison of their own tradition and experience with those of others. It is only by studying the history of other civilizations and cultures that we can hope to gain perspective on our own.

The course offerings in the Department of History 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

**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 course.

**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 completed. 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.

**Required Lower-Division Courses (10 units):**
Any two lower-division history courses.

**Required Upper-Division Courses (20 units):**
Any five upper-division history courses.

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 overviews 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.

**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
syntheses 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 843 to circa 1715 (Honors). (5) Lecture, three hours; discussion, one hour. Introduction to history of the West and its connections to rest of world from 843 to 1715. Foundational social, political, cultural, and intellectual changes that affected development of modern world. Topics 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 (Honors). (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, religious movements, urbanization, mass global migrations, European expansion and imperialism, and de-colonization, leading to emergence of new nation states in Europe’s former colonies. P/NP or letter grading.

1CH. Introduction to Western Civilization: Circa 1715 to Present (Honors). (5) Lecture, three hours; discussion, two hours. 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 discourses; 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, and Modern Transcendentalism, 1800 to 1600. (5) Lecture, three hours; discussion, two hours. Specific aspects of elite and popular culture in medieval and early modern Europe. Manner in which men and women sought to explain, order, and escape terrors of their lives by embracing transcendent religious experiences and dreams 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, mechanism 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. In 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 startling 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 technological, 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 context, of medical developments and interactions, 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 disease, 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 state. Focus on 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. Survey of the 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; development of modern states and societies; 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 survey of social, political, and economic development of Latin America after independence, region that includes Mexico, Central and South America, and Caribbean. Formation of independent nation states and political regimes and quest for sovereignty and its challenges in shadow of U.S., approached from bottom up through lens of social history, everyday life, and popular culture. P/NP or letter grading.

8BH. Modern Latin America (Honors). (5) Lecture, three hours; discussion, one hour. Honors course parallel to course 8B. P/NP or letter grading.

8C. Latin American Social History. (5) Lecture, three hours; discussion, two hours. Historical and contemporary perspective of role of ordinary people in Latin American society. Each lecture/film session centers on a major Latin American movie 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.

9A. History of India. (5) Lecture, three hours; discussion, two hours. Introductory survey for beginning students of major cultural, social, and political ideas, traditions, and institutions of Indic civilization. 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 the present, with emphasis on development of Japan as a cultural daughter of China. Attention to manner in which Chinese culture was Japanese and aspects of Japanese civilization which became unique. Creation of the modern state in the last 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 history of a region bounded 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 the emergence of nation states. Lecture, three hours; discussion, two hours. Not open for credit to students with credit for course 10BH or 10BW. 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.

10B. Introduction to Civilizations of Africa (Honors). (4) Lecture, three hours; discussion, two hours. Not open for credit to students with credit for course 10BH or 10BW. Honors course parallel to course 10B. 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 10BH. 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. 10B.

11A-11B. History of China. (5–5) Lecture, three hours; discussion, one hour. 11A. To 1000. Survey of early history of China—a geographic and historical survey of Chinese history from antiquity to modern times, focusing on social, political, intellectual, and economic aspects of early and middle empires. 11B. Circa 1000 to 2000. Survey of later history of China—evolution of Chinese political institutions and culture. 11B. Circa 1000 to 1000 to 2000. Focus on social, political, intellectual, cultural, and economic aspects of early modern regimes and empires and rise of modern China into a world power. 11A.

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. 1000 to 1500 (Honors).
12A. Inequality: History of Mass Imprisonment. (5) Lecture; three hours; discussion, one hour. Beginning with end of U.S.-Mexican War (1848) and ending with beginning of World War II, historical analysis from days when Los Angeles first became U.S. town until 1940s, when it became center of human confinement. Exploration of major eras and turning points in city’s rise as both national and global leader in human incarceration, with review of historical foundations and major impulses in Los Angeles. Introduction to current social and political landscape of imprisonment in Los Angeles. P/NP or letter grading.

12B. Inequality: History of Neoliberalism. (5) Lecture; three hours; discussion, one hour. Exploration of origins, ideas, and consequences of neoliberalism— theory that society is best organized on principles of free trade, deregulation and First Nationization. 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 military Keynesianism, and Mount Pelerin Society’s Cold War resurrection of 19th-century liberalism. Coverage of economic crisis of 1970s, restructuring of global political economy by US, Europe, global south—specifically debt, structural adjustment policies, environmental destruction, and military intervention. Tracing of colonial roots of global north-south divide to reveal how historically representative long process of accumulation by dispossession and enclosure rather than sudden radical break from Keynesian model. P/NP or letter grading.

12C. Inequality: Global History of Anti-Colonial Thought and Practice. (5) Lecture; three hours; discussion, one hour. One hundred years after growth and normalization of poverty, violence, and racial hatred in neo-liberal present have direct linkage to earlier moment when colonial nations of the world 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 Antón Céspedes, Frantz Fanon, Ho Chi Minh, Tomst Miyaka, Sun Yat-Sen, Shusui Kotoku, 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 political climate. P/NP or letter grading.

13A-13B-13C. History of the U.S. and its Colonial Origins. (5–5–5) Lecture; three hours; discussion, one hour. Strongly recommended for History majors planning to take 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 conflict and competition. Atlantic history approach avoids national frameworks that assume creation of later national division in order to understand larger, integrated region, one that gave rise to later nation states. In near-nearing past is studied. Historians explore key questions: how did border movements of people, goods, and ideas affect the making of states? How do we 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 bodies of the world. P/NP or letter grading.

88. Simone 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 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.

99. Honors Seminars. (1) Seminar; three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99HC. History 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.

99M. 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.

99W. Introduction to Historical Practice. (5) Seminar; three hours. Enforced requisite: English Composition 3 or 3H 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. Jointly scheduled with course 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 a range of possibilities for topics to be offered in specific term. P/NP or letter grading. 97A. Ancient History; 97B. Medieval History; 97C. European History; 97D. U.S. History; 97E. Latin American History; 97F. Near Eastern History; 97G. East Asian History; 97H. History of Science/Technology; 97J. African History; 97K. History of Religion; 97L. Jewish History; 97M. Southeast Asian History; 97N. Indian History; 97Q. World History.

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 undergraduates. Designed to help them understand issues and dilemmas facing the world today, and prepare them for more in-depth work in history of specific regions or bodies of the world. P/NP or letter grading.

Upper-Division Courses

100. History and Historians. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific historical themes from world historical perspective. May be repeated for maximum of 8 units with topic and/or instructor change. P/NP or letter grading.

C101A-C101B. Variable Topics: Interdisciplinary Studies. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics may include gender, world history, masculinity, and economic history. May be repeated for credit with topic change. Concurrently scheduled with courses C208A-C208B. P/NP or letter grading.

102A. Iran and Persianate World. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/senior. Examination of specific historical themes from world historical perspective. May be repeated for maximum of 8 units with topic and/or instructor change. P/NP or letter grading.

M103A-M103B. History of Ancient Egypt. (4–4) (Same as Ancient Near East M103A-M103B.) Lecture, three hours; discussion, one hour (when scheduled). Course M103A is not required 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 Ancient Near East M104A.) Lecture, three hours; discussion, one hour (when scheduled). Course M104A is not required to M104B. 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 Ancient Near East M104B) Lecture, three hours. Designed for juniors/ seniors. Overview of Sumer and related cultures of
Greater Mesopotamia in 4th and 3rd millennium BCE, with focus on rich cultural history of region and integration of archaeological, art historical, and written records. P/NP or letter grading.

M104C. Babylonians. (4) (Same as Ancient Near East M104C.) Lecture, three hours. Designed for juniors. 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 economic development. P/NP or letter grading.

M104D. Assyrians. (4) (Same as Ancient Near East M104D.) Lecture, three hours. Designed for juniors or seniors. Overview of Assyrian cultural history from its origins (circa 2000 BCE) to fall of Nineveh (612 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 or seniors. Background and circumstances of rise of Islam, creation of Islamic Empire, and its development. Rise of Ottoman Empire and its impact on Arab and Jewish dispersion. P/NP or letter grading.

106A. Premodern. (4) (Same as Religion M106A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. Examination of early development of Islam with special attention to doctrine of nature of God, human responsibility, guidance, revelation and religious authority, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/NP or letter grading.

107A-107B-107C. Armenian History. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. Overview of Assyrian cultural history from its origins (circa 2000 BCE) to fall of Nineveh (612 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.

108A. History of North Africa from Islamic Conquest. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. Survey of political, economic, social, and cultural history of North Africa region since 7th century CE: Arab-Islamic period. P/NP or letter grading.

109B. History of Israel-Palestinian Conflict, 1881 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. Examination of origins of Arab-Israeli dispute from late 19th century through founding of state of Israel and expulsion/flight of three quarters of million Palestinians from their homes. Exploration of social history of Palestine under Zionist colonization; origins of Zionism and Palestinian nationalism, varieties of Zionism, Zionism and colonialism, seminal events and their consequences Great Revolt and 1948 nakba (disaster), construction of national consensus in Israel, 1967 and its aftermath, intifada, and redefinition of conflict as result of Oslo. P/NP or letter grading.

110A-M110B-M110C. Iranian Civilization. (4-4-4) (Same as Ancient Near East M110A-M110B and Iran M110A-M110B-M110C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. History of Achaemenid Empire. From end of Elam and rise of Medes to Macedonian conquest of Achaemenid Persia. Emphasis on political history, state structure, empire’s religious and commercial organization. Further attention to doctrine of nature of God, human responsibility, guidance, revelation and religious authority, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/NP or letter grading.

110D. Introduction to Armenian Oral History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. Introduction to Armenian oral history. Topics include changing notions of personal, tribal, ethnic, linguistic and religious identities; nationalism question and Soviet national republics. Letter grading.

111A-111B-111C. Topics in Middle Eastern History. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. Focus on thematic issues in Middle Eastern history, three quarters. P/NP or letter grading.

112A. Caucasus under Russian and Soviet Rule. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. Survey of political, economic, social, and cultural history of Caucasus region since 1801. Georgian, Armenian, and Azerbaijani response to Russian and Soviet rule; nationality question and Soviet republics. P/NP or letter grading.

112B. History of Ancient Mediterranean World. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. Survey of political, social, economic, religious, artistic, and literary history of Greek and Roman world from the archaic period and early classical age through Persian Wars, 5th century BCE. Emphasis on religious history of Mediterranean in late antiquity, from crisis of fifth century through rise of Byzantium. Topics include emperor, iconoclasm, intellectual freedom, attempts at reform. Letter grading.

112C. Power and Imagination in Byzantium. (4) (Same as Classics M112C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. History and institutions of Greeks from Classical Period to Time of Constantine. Early empire treated in more detail, supplemented by survey of social and economic changes in 3rd century. Transformation of Classical World; rise of religious history of Mediterranean and impact of paganism on Christian leaders. Focus on Byzantine history of Mediterranean in late antiquity, from crisis of fifth century through rise of Byzantium. Topics include emperor, iconoclasm, intellectual freedom, attempts at reform. Letter grading.

113A-113B. History of Ancient Greece. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. P/NP or letter grading. 113A. Rise of Greek City-State. Emphasis on archaic period and early classical period. P/NP or letter grading.

113B. Survey of Modern Mediterranean. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

114A-114B-114C. History of Rome. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. P/NP or letter grading. 114A. To Death of Caesar. Emphasis on development of imperialism and on constitutional and social changes of late republic, especially the 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. Transformation of Classical World; rise of religious history of Mediterranean in late antiquity, from crisis of fifth century through rise of Byzantium. Topics include emperor, iconoclasm, intellectual freedom, attempts at reform. Letter grading.

115A-115B. History of the Middle East. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. Political, socioeconomic, religious, and cultural continuity in millennial history of Mediterranean; Reform of 19th and 20th centuries. Focus on relations with Latin Europe, Slavs, Sassanids, Arabs, and Turks. P/NP or letter grading.

115C. Power and Imagination in Byzantium. (4) (Same as Classics M115C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

116A-116B. Byzantine History. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. Political, socioeconomic, religious, and cultural continuity in millennial history of Mediterranean; Reform of 19th and 20th centuries. Focus on relations with Latin Europe, Slavs, Sassanids, Arabs, and Turks. P/NP or letter grading.

119A-119B. Medieval Europe. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or 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 or seniors. Survey of Western Mediterranean Europe, social/economic/cultural within political framework, including its relation with other cultures. P/NP or letter grading.

119D. Topics in Medieval History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors or seniors. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.
History of Modern Europe

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, efforts to modernize and reform, implications of gaps between industrialized core and periphery, and consequences of its partial failure in economy, politics, and culture. 120B. Short 20th Century, 1918 to 1990. Analysis and interpretation of stormy history of Central and Eastern Europe in 1989. Analysis of cause 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), using eight Czech, Polish, and Hungarian films. Historical and political detour: 70 years of departure from Western values and culture; back to Eastern Europe (1945 to 1989). Analysis of political and economic ideas, crisis of Old Regime, post-Napoleonic tensions between reform and reaction, and World War I; fall of old regime. 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. State-socialism and Soviet domination collapsed in East-Central Europe after 1989. Analysis of domestic circumstances and 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. Period from revolt of Thirteen Colonies to French Revolution of 1789, and Napoleonic regime, viewing social and political changes, and different views of it in Russia. P/NP or letter grading.

122A. Bourgeois Century, 1815 to 1914. (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.

122B. 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.

122C. 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 Belgian) 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 1945. P/NP or letter grading.

126. Europe in Age of Revolution, circa 1775 to 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Period from revolt of Thirteen Colonies to French Revolution of 1789, and Napoleonic regime, viewing social and political changes, and different views of it in Russia. 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.

133A-M133B. History of Women in Europe. (4) (Same as Gender/Cultural Studies M133A-M133B) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of social, political, and cultural roles of women in Western Europe from Middle Ages to present. P/NP or letter grading. M133A. 800 to 1715; M133B. 1715 to Present.

133C. History of Prostitution. (4) Same as Gender/Cultural Studies M133C) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of prostitution from ancient times to present. Topics include tolerance in medieval Europe, impact of syphilis, birth of courtesans, regulation in 18th to 20th centuries, white slavery and 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 emergence of capitalist economy, Industrial Revolution, the role of international trade, the nature of social classes, and of economic relations, with emphasis on interconnections of these with major economic and political events. P/NP or letter grading. 134C. 1910 to 2000. The economic development of contemporary Europe, the nature of international trade, and the interrelations of national and world economies, from the second half of the 20th century to the present. P/NP or letter grading.

135C. Imperialism 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 colonial expansion, from Africa to Asia, and return from Asia 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 social and political life. P/NP or letter grading. 136A. Tudor-Stuart Times, 1485 to 1715. Political, socio-economic, religious, and cultural history of Britain under Tudors and Stuarts. Topics include Reforma tion, translation 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 social change under pressure of industrialization, emergence of Britain as a world power, 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 ideas, 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 molder of American society in English North America from 1607 to 1763. Discussion of 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, and development to capitalist economy. P/NP or letter grading.

138C. U.S. History, 1800 to 1850. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of political and social reconstruction after the Civil War. P/NP or letter grading.

139A. U.S. Civil War and Reconstruction. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Rise of sectionalism, slavery, and the American Civil War. P/NP or letter grading. 139B. U.S., 1875 to 1900. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. American political, social, and institutional transformation. Emphasis on 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 and industrial trends were dramatic. What 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 processes 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. Examination of major ideas about humanity and God, nature and society, that have been at work in American history. Sources of these ideas, their connections with one another, their relationship to American life, and their expression in great documents of American thought. P/NP or letter grading.

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 envelops diverse understandings of America for producers and consumers. Historical development of American popular culture according to changing set of social, political, and economic circumstances. Evolution of the nation and mass circulation of popular cultural expressions, as well as arrival of new technologies that enabled that development. P/NP or letter grading.

142D. American Popular Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Reconsideration of American exceptionalism. Designed for juniors/seniors. Survey of American cultural history since 1865, with emphasis on historical development of urban, consumer-oriented American mass culture that envelops diverse understandings of America for producers and consumers. Historical development of American popular culture according to changing set of political, economic, social, and cultural circumstances. Evolution of the nation and mass circulation of popular cultural expressions, as well as arrival of new technologies that enabled that development. P/NP or letter grading.

143A-143B. Constitutional History of U.S. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 143A. Origins and Development of Constitutionalism in U.S. Particular emphasis on city. Designed for juniors/seniors. Survey of American cultural history since 1865, with emphasis on historical development of urban, consumer-oriented American mass culture that envelops diverse understandings of America for producers and consumers. Historical development of American popular culture according to changing set of political, economic, social, and cultural circumstances. Evolution of the nation and mass circulation of popular cultural expressions, as well as arrival of new technologies that enabled that development. P/NP or letter grading.

144. American in World. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consideration of U.S. exceptionalist approach to national self-understanding by rethinking crucial aspects of American history in more international context that goes well beyond foreign relations and international affairs to conceptualize aspects of American economic, intellectual, cultural, and social history. Consideration of how flows of people, ideas, goods, wealth and politics, as well as comparative studies of all these things and more. P/NP or letter grading.

M144C. Critical Issues in U.S.-Philippine Relations. (4) (Same as Asian American Studies M171D) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 145A. U.S. Cities: Overview. Demographic, geographic, political, economic, and social development of U.S. cities in relation to broad trends in U.S. history as well as to their own more specific histories. Em-
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 contemporary labor movements. 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. Introduction to major themes in history of early American women from initial confrontation of English and American Indian cultures in early 17th century to role of women's rights movement in mid-19th century. P/NP or letter grading.

147C. History of Women in Colonial British America and Early U.S., 1600 to 1860. (4) (Same as Gender Studies M147B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in history of early American women from initial confrontation of English and American Indian cultures in early 17th century to role of women's rights movement in mid-19th century. P/NP or letter grading.

147D. History of Women in U.S., 1860 to 1980. (4) (Same as Gender Studies M147D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey lecture course on historical development of Mexican (Chicana) community and people of Mexican descent (Indio-Mestizo- Mulato) in U.S. and Mexican communities in 19th and 20th centuries, with special focus on labor and politics. Provides integrated understanding of change over time in Mexican community by inquiry into major formative historical events in Mexican history and ethnic experiences. Social structure, economy, labor, cultural, 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.

148. Introduction to Public/Applied History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. General survey of historical definitions of, and debates about, public and applied history, that is, history in non-academic settings in government and non-governmental agencies. Emphasis on historical development of Mexican (Chicana) community and people of Mexican descent (Indio-Mestizo-Mulato) in U.S. and Mexican communities in 19th and 20th centuries, with special focus on labor and politics. Provides integrated understanding of change over time in Mexican community by inquiry into major formative historical events in Mexican history and ethnic experiences. Social structure, economy, labor, cultural, 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.

149A-149B. North American Indian History. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of Native American cultures. Focus on selected Indian peoples in each period. P/NP or letter grading.

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 that shape present-day North American, Caribbean, and Latin American slave societies. P/NP or letter grading.

150B-M150C. Introduction to Afro-American History. (4-4) (Same as African American Studies M150B-M150C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. 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.

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 Chicano and Chicana 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) in U.S. and Mexican communities in 19th and 20th centuries, with special focus on labor and politics. Provides integrated understanding of change over time in Mexican community by inquiry into major formative historical events in Mexican history and ethnic experiences. Social structure, economy, labor, cultural, 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.

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. Advanced survey of Latin American history from conquest to independence, with emphasis on society, culture, and ethnic aspects. 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. Coverage from time of European conquest through 1821 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 achievements of Latin American nations from their independence to around 1910. P/NP or letter grading.
160A, Latin American Eligolore. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Eligolore (defined as oral or noninstitutionalized knowledge involving leaders’ conceptual and perceptual life history views) in contrast to folklore (followers’ traditional or popular noninstitutionalized knowledge involving leaders’ ideas, and social and political institutions. Examination of creative expression of permanent crisis to describe and explain structure of permanent revolution under one-party democracy. Analysis of unexplored colonial- and postcolonial problems and crises that have influenced modern-day Mexico, if in modified form. P/NP or letter grading.

161. Topics in Latin America History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of major issues in history of Latin America. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

162A. Modern Brazil. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of development of colonial society in Brazil from discovery in 1500 to independence in 1822, placing it in context of Portugal’s overseas expansion in Asia, Africa, and Americas. Emphasis on Portuguese, indigenous, and African roots of modern Brazil. P/NP or letter grading.

162B. Brazil and Atlantic World, 1500 to 1822. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of colonial society in Brazil from discovery in 1500 to independence in 1822, placing it in context of Portugal’s overseas expansion in Asia, Africa, and Americas. Emphasis on Portuguese, indigenous, and African roots of modern Brazil. P/NP or letter grading.

162C. History of Argentina. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of economic, political, social, and cultural developments that have shaped Argentine history from colonial times to present. Emphasis on 19th-century development of agro-export economy and 20th-century formation of mass society. P/NP or letter grading.

164B-164Z. Topics in African History. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Examination of specific topics in African history. P/NP or letter grading.

164B, African and Slave Trade. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Social, economic, political, and cultural impact of slave trade on African society, with emphasis on Atlantic trade without neglecting those of ancient Mediterranean, Islamic, and Indian Ocean worlds. Abolition and African diaspora. P/NP or letter grading.

164D, Africa and Diaspora in Global and Comparative Perspective. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Social, economic, political, and cultural impact of slave trade on African society, with emphasis on Atlantic trade without neglecting those of ancient Mediterranean, Islamic, and Indian Ocean worlds. Abolition and African diaspora. P/NP or letter grading.

164E, Africa, 1945 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Social, economic, political, and cultural impact of slave trade on African society, with emphasis on Atlantic trade without neglecting those of ancient Mediterranean, Islamic, and Indian Ocean worlds. Abolition and African diaspora. P/NP or letter grading.

164F, Africa, 1945 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Social, economic, political, and cultural impact of slave trade on African society, with emphasis on Atlantic trade without neglecting those of ancient Mediterranean, Islamic, and Indian Ocean worlds. Abolition and African diaspora. P/NP or letter grading.

165A. History of West Africa. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific topics in African history. P/NP or letter grading.

165B. History of Central Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of central Africa from earliest times to present. Emphasis on agriculture, growth of trade, rise of states, and incorporation of region into world economy. P/NP or letter grading.

166A-166B. History of Southern Africa. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific topics in African history. P/NP or letter grading.

166A, South Africa, 1652 to 1910. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of South Africa from earliest times to present. Emphasis on establishment of agriculture, growth of trade, rise of states, and incorporation of region into world economy. P/NP or letter grading.

166B, South Africa, 1910 to 1994. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examines the period from the end of World War II to present. Emphasis on 19th-century development of agro-export economy and 20th-century formation of mass society. P/NP 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 present. Emphasis on agriculture, growth of trade, state formation, and colonial conquest to gaining independence and postcolonial challenges. P/NP or letter grading.

167C. History of Central Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of Central Africa from earliest times, with emphasis on establishment of agriculture, growth of trade, rise of states, and incorporation of region into world economy. P/NP or letter grading.

168A-168B. History of Southern Africa. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific topics in African history. P/NP or letter grading.


168B, Southern Africa, 1910 to 1994. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examines the period from the end of World War II to present. Emphasis on agriculture, growth of trade, rise of states, and incorporation of region into world economy. P/NP or letter grading.

169A-169B. History and Thought in China. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific topics in Chinese history. P/NP or letter grading.

169A, Early Modern China. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific topics in Chinese history. P/NP or letter grading.

169B, Early Modern China. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific topics in Chinese history. P/NP or letter grading.

170A. Culture and Power in Late Imperial China. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 11A or 11B. Designed for juniors/seniors. Analysis of religious, social, and economic conditions in the Song and Yuan dynasties. Emphasis on the role of the government in promoting cultural and economic development. P/NP or letter grading.

170B. Selected Topics in Chinese History from 1500 to 1900. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 11B. Designed for juniors/seniors. Topics include law, society, and culture; foreign trade; and ethnic minorities. P/NP 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 seniors/juniors. Important topics in Chinese 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/NP or letter grading.

170D. 20th-Century China. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 11B. Designed for juniors/seniors. Survey of Chinese history since the end of the Qing dynasty, including the Cultural Revolution. P/NP or letter grading.

172A. Japan—Ancient and Medieval History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Selected 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/NP or letter grading.

172B. Japanese History: Early Modern, 1600 to 1868. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and cultural development of Japan from 1600 to 1868. P/NP or letter grading.

172C. Modern Japanese History, 1850 to 1945. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Investigation of meaning of modern “Japan” for newly national or (post)colonial populations. P/NP or letter grading.

173A. Japanese Popular Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include law, society, and culture; foreign trade; and ethnic minorities. P/NP 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 seniors/juniors. Topics include law, society, and culture; foreign trade; and ethnic minorities. P/NP or letter grading.
women, war, and empire (1930 to 1945), and women in consumer society (1980s and 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 Reformation and Zen's role in warrior culture, folk religions and aspects such as shamanism, ancestor worship, and millenarianism. P/NP or letter grading.

173D. Postwar Japanese History through Film. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of postwar Japanese history through medium of film and film criticism. Much of postwar Japanese cinema can be seen as reflecting on and questioning place of Japan in world reshaped by catastrophic war and its lingering specter. Through screenings and critical discussion of select films spanning half-century following World War II, 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 major issues in history of contemporary India. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

174B. History of British India I. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social dimension of major issues in history of contemporary India. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

174C. Contemporary South Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political economy of imperialism and Britain's civilizing mission. Encounter, especially in terms of race and gender, between colonizers and colonized and to questions of resistance and nationalism. P/NP or letter grading.

174D. Indo-Islamic Interactions, 750 to 1750. (4) (Same as Religion M174D) Lecture, three hours: discussion, one hour (when scheduled). Designed for juniors/seniors. Historical introduction to Muslim communities of what eventually became nations of India, Pakistan, Bangladesh, Brunei, Malaysia, and Indonesia. Topics include social, political, religious, and cultural history. P/NP or letter grading.

174E. Indo-Islamic Interactions, 1750 to 1950. (4) (Same as Religion M174E) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of expansion of British rule, theories and practice of governance, constitution of India as oriental despotism, epistemological projects of state, and other modes by which British achieved conquest of knowledge. 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. Problem of modernity; partition of India and emergence of Pakistan; political, social, ecological, and women's movements; struggle for rights and conflicts of identity among Muslims, Hindus, and Sikhs; terrorism in Sri Lanka and Punjab; public culture, popular cinema, and street life. P/NP or letter grading.

175A. Cultural and Political History of Contempor ary India. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of overseas Indian communities; transformations of Hinduism in diaspora; emergence of new diasporic arts forms such as bhangra-rap and chutney music; political and cultural history of peoples of Southeast Asia from earliest times to about 1815. 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. 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 1899, and politics of Philippine nationalist discourse. Readings include introduction to major issues in Philippine historiography and literature. 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.

176E. Vietnam: Past and Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of contemporary 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.

178A. Topics in History of Science. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics may include science and colonialism, science and religion, environmental history, science in Enlightenment, development of theory of evolution, science and public policy, public nature of science. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

178B. History of Medicine: Foundations of Modern Medicine. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Cultural, scientific, and social context that shaped modern medicine from Renaissance to Romantic era. Topics include establishment of anatomy, physiology, and modern clinical medicine, mapping of human body, medical approach to mental illness, rise of anatomic-clinical method at Paris School. 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 Hippocratic medicine, 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 hospitals. P/NP or letter grading.

179B. History of Medicine: Foundations of Modern Medicine. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Cultural, scientific, and social context that shaped modern medicine from Renaissance to Romantic era. Topics include establishment of anatomy, physiology, and modern clinical medicine, mapping of human body, medical approach to mental illness, rise of anatomic-clinical method at Paris School. P/NP or letter grading.

179C. Medicine and Society in 20th-Century America. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Sociocultural look at changes in medical science, health and disease, and treatment practices in 20th century context within development of hospitals and research institutions and of changing American society. Topics include medical topics involving drugs, cancer research and treatment, mental illness, patient activism, and genetic medicine. P/NP or letter grading.

180A. Topics in History of Science. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics may include science and colonialism, science and religion, environmental history, science in Enlightenment, development of theory of evolution, science and public policy, public nature of science. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M180B. Historical Perspectives on Gender and Sexuality. (4) (Same as Gender Studies M180B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical cases illustrate how gender enters practices and concepts of science. Topics include gendered conceptions of nature, persona of man of science, role of women in scientific revolution, scientific investigations of women and femininity. P/NP or letter grading.


M181. Topics in Jewish History. (4) (Same as Jewish Studies M181.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical cases illustrate how gender enters practices and concepts of science. Topics include gendered conceptions of nature, persona of man of science, role of women in scientific revolution, scientific investigations of women and femininity. P/NP or letter grading.

M181SL. Jewish Thought, Politics, and Ethics: From Theory to Practice. (4) (Same as Jewish Studies M181SL.) Lecture, three hours; fieldwork, two hours. Designed for juniors/seniors. History of Los Angeles, with special emphasis on pivotal roles Jewish history have played in shaping Los Angeles and Los Angeles has played in reshaping of Jewish identities, communities, and cultures. Exploration of themes related to regionalism in American Jewish history, community organizing in Jewish neighborhoods and frontiers and borderlands, while providing overview of historical methodologies and interpretation. Examination of ethical and methodological implications of writing history in digital age and learn to read and analyze these new media works as primary and modernist critiques of his ideas, and reflections on his place in modern India and global circulation of his ideas over last six decades. P/NP or letter grading.

M174G. Indian Identity in U.S. and Diaspora. (4) (Same as Asian American Studies M174G.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of overseas Indian communities; transformations of Hinduism in diaspora; emergence of new diasporic arts forms such as bhangra-rap and chutney music; political and cultural history of diaspora Indians and other racial and ethnic groups; Indian women as embodiment of Indian culture; diasporic identities. P/NP or letter grading.

M174F. Gandhi and Making of Modern India. (4) (Same as Asian American Studies M174F.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of overseas Indian communities; transformations of Hinduism in diaspora; emergence of new diasporic arts forms such as bhangra-rap and chutney music; political and cultural history of diaspora Indians and other racial and ethnic groups; Indian women as embodiment of Indian culture; diasporic identities. P/NP or letter grading.
185A. History of Religion: Myth. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of myth in history of religion and culture. Examination of a variety of religious, mythological, and folk cultures of the world. May be repeated once for credit.

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 specific topics. 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 specific topics. May be taken independently for credit. P/ NP or letter grading.
195. Community or Corporate Internships in History. (4) Tutorial, three hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract required. Supervising faculty member required. P/NP grading.

195CE. Community and Corporate Internships in History. (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 an essay assignment, attend bimonthly 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 using historical methods. 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.

M195DC. CAPPP Washington, DC, Internships. (4) (Same as Political Science M195DC and Sociology M195DC) Tutorial, four hours. Limited to junior/senior CAPPP Program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract required. Supervising faculty member required. P/NP grading.

197. Individual Studies in History. (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 grading.

198A. Honors Research in History. (4) Tutorial, to be arranged. Course 198A is requisite to 198B, which is requisite to 198C. Limited to juniors/seniors. Development of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

198B. Honors Research in History. (4) Tutorial, to be arranged. Requisite: course 198A. Limited to juniors/seniors. Development of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for maximum of 16 units. Individual contract required. In Progress grading (credit to be given only on completion of course 198C).

198C. Honors Research in History. (4) Tutorial, to be arranged. Requisite: course 198B. Limited to juniors/seniors. Completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for maximum of 16 units. Individual contract required. In Progress grading (credit to be given only on completion of course 198C).

199. Directed Research in History. (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; History majors limited to 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200U. Advanced Historiography. (4 each) Seminar, three hours. May be repeated for credit. 200A. Ancient Greece; 200B. Ancient Rome; 200C. Medieval; 200D. Europe; 200E. U.S.; 200L. Latin America; 200J. Near East; 200K. India; 200L. China; 200M. Japan; 200N. Africa; 200O. Science/Technology; 200P. European History; 200Q. History of Journalism; 200R. Jewish History; 200S. Armenia and Caucasus; 200T. Southeast Asia; 200U. Psychohistory.

M200W. Advanced Historiography: Afro-American. (4) (Same as African American Studies M200A) Seminar, three hours. May be repeated for credit. S/U or letter grading.

201A-201P. Topics in History. (4 each) Seminar, three hours. Graduates 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 Greek, 201B. Ancient Roman, 201C. Early Medieval, 201D. 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; 201R. Jewish History; 201S. Armenia and Caucasus; 201T. Southeast Asia; 201U. Psychohistory; 201V. Digital History; 201W. World.

C201H-C201P. 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. C201H. 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 Histo- ry. (4-4) Seminar, three and one half hours every other week. Introduction to 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, Meth- ods, Debates, Practice. (4) (Formerly numbered 204.) Seminar, three hours. Required of all first-year graduate departmental 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 on professional writing. Discussion of 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 of historians. 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 De- velopment 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 Ph.D. 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.

C208A-C208B. Variable Topics: Interdisciplinary Studies. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Course C208A is not requisite to C208B. Topics may include gender, world history, masculinity, and economic history. May be repeated for credit with topic change. Concurrently scheduled with courses C210A-C210B. S/U or letter grading.


211A-211B. Seminars: Armenian History. (4-4) 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 a preprintivist context, including methods of interview 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. Courses 213A and 213B. Readings include historiography 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 diversity in topics and perspectives represented and discussed. 213B. En- forced requisite: course 213A. Research, analysis, drafting, and rewriting of student final papers.

213C. History of Women, Men, and Sexuality His- toriography. (4) Seminar, three hours. Limited to graduate students. Exposure to newest branch of gender history: study of masculinity. Focus not on men per se, but on values, practices, and texts that constitute masculinity as one gender. Readings focus on broad range of chronological periods from antiquity to 20th century and geographical areas including Americas, Asia, Europe, and Middle East. S/U or letter grading.

C214. Topics in History: World History. (4) (For- merly numbered 214.) Seminar, three hours. Designed for graduate students. Examination of variety of broad theories in human history based on a broad 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 Manu- scripts, 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 knowledge in accurate transcription of Latin medieval manuscripts, and (3) examine manuscript book as witness to changing society that produced it.
Focus on relationship between Latin manuscripts and vernacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.

221A-221B. Seminars: Medieval History. (4-4) Seminar, three hours. Course 221A is requisite to 221B. In Progress (221A) and letter (221B) grading.

225. Seminar 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 topical, methodological, and historiographic 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.

230A-230B. Seminars: Modern European History. (4-4) (Same as Art History M230B-M230C.) Seminar, three hours. Course 230A is requisite to 230B. May be repeated for credit with consent of adviser. In Progress (M230A) and letter (M230B) grading.

231A-231B. Seminars: Modern European Intellectual and Cultural History. (4-4) Seminar, three hours. Course 231A is requisite to 231B. In Progress (231A) and letter (231B) grading.

232A-232B. Seminars: French History of 19th and 20th Centuries. (4-4) Seminar, three hours. Course 232A is requisite to 232B. In Progress (232A) and letter (232B) grading.

233A-233B. Seminars: Russian/Soviet History. (4-4) Seminar, three hours. Course 233A is requisite to 233B. In Progress (233A) and letter (233B) grading.

234A-234B. Seminars: Modern History of Spain, Portugal, and Italy. (4-4) Seminar, three hours. Course 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. Focus on critical history of anthropological study of Mediterraneans, Jewish Mediterranean, colonial and post-colonial Mediterranean, and Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame concepts, colonial Mediterraneans, Levantinism, thalassocracy, Mediterraneanism, French Mediterraneans, Jewish Mediterranean, colonial and post-colonial sea and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean and scholarly literature that emphasizes southern shores of 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.

252A-252B. Seminars: Recent U.S. History since 1930. (4-4) Seminar, three hours. Course 252A is requisite to 252B. In Progress (252A) and letter (252B) grading.

253A-253B. Seminars: U.S. Social and/or Intellectual History. (4-4) Seminar, three hours. Course 253A is requisite to 253B. In Progress (253A) and letter (253B) grading.

254A-254B. Seminars: Business Enterprise and American Culture. (4-4) Seminar, three hours. Course 254A is requisite to 254B. In Progress (254A) and letter (254B) grading.

255A-255B. Seminars: America in World. (4-4) Seminar, three hours. Course 255A is requisite to 255B. In Progress (255A) and letter (255B) grading.

256A-256B. Seminars: Business Enterprise and American Culture. (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.

259A-259B. Seminars: Working Class History. (4-4) Seminar, three hours. Course 259A is requisite to 259B. In Progress (259A) and letter (259B) grading.

259A-259B. History of Women. (4-4) (Same as Gender Studies M259A-M259B.) Seminar, three hours. Course M259A is requisite to M259B. History of women's social and political issues seen in U.S. and comparative context. In Progress (M259A) and letter (M259B) grading.

260A-260B. Seminars: Native American History. (4-4) Seminar, three hours. Course 260A is requisite to 260B. In Progress (260A) and letter (260B) grading.

262A-262B. Seminars: Native American Revitalization Movements. (4) (Same as Anthropology M262A.) 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.

263A-263B. Seminars: Afro-American History. (4-4) Seminar, three hours. Course 263A is requisite to 263B. 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 (263A) and letter (263B) grading.

265A-265B. Seminars: Africana History. (4-4) Seminar, three hours. Course 265A is requisite to 265B. In Progress (265A) and letter (265B) grading.

266A-266B. Seminars: Colonial Latin American History. (4-4) Seminar, three hours. Course 266A is requisite to 266B. In Progress (266A) and letter (266B) grading.

269C. Analyzing Historical Texts. (4) (Same as Linguistics M269.) Seminar, four hours. Designed for graduate students. Analytical 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.

268A-268B. Seminars: Recent Latin American History. (4-4) (Same as Latin American Studies M268A-M268B.) Seminar, three hours. Course 268A is requisite to 268B. In Progress (268A) and letter (268B) grading.


280. China Studies: Discipline, Methods, Debates. (2) (Same as Chinese M280.) Seminar, two hours. Introduction to study of China as practiced in humanities and social sciences disciplines. S/U grading.

281. China—Seminars; Classical Historiography and Readings in Classical Studies. (4) (Same as Chinese M281.) Discussion, three hours. Preparation: two years of classical Chinese or working knowledge of classical Chinese. Course; 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.

Course 286. 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 in this hardly explored area of study of colonialism. S/U or letter grading.


Course 288A-288B. Seminars: South Asia. (4–4) Seminar, three hours. Course 288A is requisite to 288B. In Progress (288A) and letter (288B) grading.

Course 290A-290B. Seminars: Southeast Asia. (4–4) Seminar, three hours. Course 290A is requisite to 290B. In Progress (290A) and letter (290B) grading.

Course 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.

Course 293A-293B. Seminars: History of Religions. (4–4) Seminar, three hours. Course 293A is requisite to 293B. In Progress (293A) and letter (293B) grading.

Course 294A-294B. Western Science, Religion, and Political Economy, 1600 to 1830. (4–4) Seminar, three hours. Study of science integrated within matrix of religious and cultural context in early modern Europe and, to a lesser extent, in American colonies. Examination of relationship of both cultural matrices to political and economic change. S/U or letter grading.

Course 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, Toynim, Lakatos, Holton, Buhdahl, Feyerabend, and others.

Course 297A-297B. Seminars: History of Science. (4–4) Seminar, three hours. Course 297A is requisite to 297B. In Progress (297A) and letter (297B) grading.

Course 298A-298B. Seminars: Interdisciplinary Studies in 17th and 18th Centuries. (Same as English M298.) Discussion, four hours. Topics vary according to participating faculty. May be repeated for credit. S/U or letter grading.

Course 299. Interdisciplinary American Studies. (Same as English M299.) Discussion, four hours. Readings, discussion, and papers on common theme, 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.

Course 301A-301B. Collaborative 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, both domestic and international. Credit based on number of hours approved by participating faculty. S/U grading.

Course 306. 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.


Course 309. PhD Research and Writing. (1 to 8) Preparation: advancement to PhD candidacy. S/U grading.

Course 310-825-1553 Program e-mail Maria (Maite) T. de Zubiaurre, PhD, Chair Faculty Committee

Maria (Maite) T. de Zubiaurre, PhD (Germanic Languages, Spanish and Portuguese) Robert B. Goldberg, PhD (Molecular, Cell, and Developmental Biology) Kelly A. Lyle Hernández, PhD (African American Studies, History) Christina G.S. Palmer, PhD (Human Genetics, Psychiatry and Biobehavioral Sciences, Society and Genetics) Zrinka Stahuljak, PhD (Comparative Literature, French and Francophone Studies) Christopher C. Tilly, PhD (Sociology, Urban Planning) Aaron Tornell, PhD (Economics) Aradhna K. Tripati, PhD (Atmospheric and Oceanic Sciences; Earth, Planetary, and Space Sciences; Environment and Sustainability)

Scope and Objectives

The Honors Collegium is a series of courses with an interdisciplinary emphasis designed for students enrolled in College Honors. It encourages animated discussion among students, as well as between students and professors and seeks to promote scholarly exchange across the major disciplines at UCLA. 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 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 ancient times into age of AIDS. Topics include scripture, ancient tragedy, Black Death, realist novel, high aesthetic metaphors of plague, Nazi propaganda, existentialist and absurdist thought, postmodern cinema, contemporary American theatre, and modern science and medicine. P/NP or letter grading.

2. Comparative Genocide. (4) Lecture, four hours; discussion, one hour. Social comparative study of genocide, combining theoretical concepts with case studies (such as Armenia, the Holocaust, American Indians, Uganda under Amin and Obote, etc.). P/NP or letter grading.

3. Personal Brain Management. (5) Seminar, four hours. Designed for College Honors students. Available psychotherapies, educational media, and drugs can all alter our way of thinking. New wave of information technologies and biotechnologies is changing existing landscape. Survey of available tools that can help with brain changes; effects of future developments, and engagement of students in discussion on ethical and philosophical implications of these developments. P/NP or letter grading.

4. Welcome to Dark Side: Human Pathology in World Literature. (5) Seminar, three hours. Designed for College Honors students. Exploration of various aspects of pathological human behavior and how they are portrayed in classic literature works. Span disciplines of comparative literature (French, German, American Gothic, modern, English), medicine/psychiatry, history. Major themes include fear and oppression; murder and infanticide; despair and suicide; barbarism and repression; hatred and revenge; incest and shame; jealousy and paranoia; madness and psychotics. Eviction 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 frameworks when they correspond to clinical diagnostic entities. Texts used as springboard to elaborate on recurrent themes in history of human civilization. P/NP or letter grading.

5. Representing Geopolitics: Race, History, Drama, and Film. (5) Seminar, three hours. Examination of legendary queen of Egypt as seen by her contemporaries and study of origins of myths about her and ways in which subsequent cultures and eras have imagined her in literary, visual, and cinematic representations. P/NP or letter grading.

6. Energy 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 energy sources. P/NP or letter grading.

7. Saint and Heretic: Joan of Arc and Gilles de Rais. (5) History and Myth, Bard vs. Evil, three hours. Examination of both history of Joan of Arc and Gilles de Rais and of way in which, over time, their histories became legends, driven by various agendas including national identity, beatification, and gender politics. P/NP or letter grading.

8. Life, Death, and Everything in Between. (5) Seminar, three hours. Designed for College Honors students. Literature course with classic texts used to explore various aspects of human condition as they relate to health and illness. Breadth themes including creation, death, deformity, madness, contagion, infirmity; emphasis to be drawn from texts spanning Shakespeare to Proust. 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. (S) Seminar, four hours. Opportunity for collaboration between those in science-related disciplines and those in visual media 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 design, 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. (S) 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 genderlects and gendered language, as reflected in lexicon, language behavior, phonetics and intonation, and language acquisition and linguistic change. P/NP or letter grading.

11W. Postmodern Culture. (S) Seminar, four hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. Exploration of theories and art (literature, music, film, fine art) that emerged after World War II in what has come to be known as postmodernism, critical evaluation of narratourses of earlier age and fosters fragmentation, skepticism toward universal truth, commodification of art, and homo-eroticism toward universal truth, commodification of art, and homonarrative, including remixes of political speech, viral memes, and other contemporary media texts. Use of remix as lens through which to explore aesthetics and politics of appropriation, including representations of doctor/patient relations, healthcare sites and circumstances, aging, alternative treatments, and mental health. Offered in summer only. P/NP or letter grading.

12. Sacred Form: Literature and Poetry in India from Bronze Age to Premodern Times. (S) Seminar, three hours. Seminar, three hours. Study of students' own vocal productions as well as those in art/humanities-related disciplines. New ways in which science can be visually communicated, using tools, techniques, and media that are typically outside science education. Science students learn innovative ways of presenting scientific data and design and design, media, and art students learn how to apply their skills to topics they might not usually address. P/NP or letter grading.

13. Inquiry in Numbers. (S) Seminar, four hours. Preparation: high school algebra. Designed for College Honors students. Teaches nonmathematicians to love mathematics. Aims to get students to direct their thinking, not as to means to end, but as beautiful and artful in its own right, including elementary number theory and study of whole numbers. Development of rich and elegant theory of prime numbers, factorization, and modular arithmetic. P/NP or letter grading.

14. Interaction of Science and Society. (S) 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. (S) Seminar, four hours. Symmetry is one of fundamental intellectual frameworks of civilization, and its appearance in arts, sciences, 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 community complement scientific point of view. P/NP or letter grading.

16. Science of Singing Voice. (S) Seminar, three hours. Study of methods, including computer laboratory work, of quantifying aspects of voice production. Study of students' own vocal productions as well as recorded samples of famous singers. P/NP or letter grading.

17. Art, Entertainment, and Social Change. (S) 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 and local politics, and community. P/NP or letter grading.

18. Trial of Socrates. (S) Seminar, three hours. Examination of life and times of Socrates and trial that led to his execution, including in-class staging. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. What Is This Thing Called Science?: Nature of Modern Science. (S) Lecture, three hours; discussion, one hour. Exploration of difference between science and other systems of knowledge; study of history and philosophy of science and examination of its reliability as objective knowledge. P/NP or letter grading.

21W. Rise and Fall of Modernism. (S) 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 climate of disillusionment by way of literature, literary criticism, and other intellectual movements. Satisfies Writing II requirement. Letter grading.

22. Comparative Odyssey. (S) Seminar, three hours. Designed for 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. Interrogation of these traditional constructions of hero, particularly conflation of courage and violence. Readings include Writer as Migrant by Jin H'a, Odyssey by Homer, Journey to Western Anthony Yu, Trip master 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. (S) Seminar, three hours. Study of trial and death of Socrates by examining its relevance today to legal treatment of dissent and civil disobedience in the U.S. and to variety of contemporary theories and 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. (S) Seminar, four hours. Ways in which hero narratives represent and work through issues of racial and gender identity. Interdisciplinary consideration of hero narratives in film alongside various literary and media arts genres including graphic novel, blaxploitation films, hip-hop concept music, animated television series, and novel. Critical reading and analysis of these texts to question often-fraught racial and gender politics embedded in these cultural productions as way to access role that racial and gender dynamics have on world at large. P/NP or letter grading.

25. Politics and Passion: Judgment, Justice, and Emotions. (S) 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, which is key to 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 classical to contemporary times within philosophical framework. P/NP or letter grading.

26. Representing Medicine: Art, Literature, and Film. (S) 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, alternative treatments, and mental health. Offered in summer only. P/NP or letter grading.

27. Varied Mathematics. (S) 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. (S) 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 meanings and importance in daily life and in performance of cultural identity. Consideration of questions including how past and present intersect, how people have made sense of world of time and space, and how objects, heritage, collections, museums, converge, diverge, and intersect. P/NP or letter grading.


30. Vietnam War and American Culture. (S) Seminar, three hours. Cultural, social, and political implications of the Vietnam War on American society through examination of photographic, personal narrative, political commentary, drama, and fiction. P/NP or letter grading.

31. Scientific Method: Critical Inquiry into Questions of Extraterrestrial Life. (S) 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 scientific 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. (S) Seminar, three hours. Designed for College Honors students. Home is potent symbolic notion across eras and cultures, locale from which we depart and to which we may return. Broader notions of home, as homeland, incessantly form basis of conflicts between people and nations. Investigation of what home is through challenging works of theory surrounding notions of space, place, longing, belonging, exile, and return, and through lighter vibrant works of literature, film, and performance. P/NP or letter grading.

33. Sampling and Remix: Aesthetics and Politics of Cultural Appropriation. (S) 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 amature 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 legitimate and illegitimate theft. Satisfies Writing II requirement. P/NP or letter grading.

34. Film and History/Film as History. (S) Seminar, four hours. Designed for College Honors students. How do films reflect on, and even constitute, historical events? Examination of relationship between film
and history and some ways in which film has functioned as history. 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. (Seminar, three hours. Designed for College Honors students. Grounded in Aristotelian-style philosophy found in Martha Nussbaum’s TheNIK and D.M.S. Hacker’s Intellectual Powers. Prompted by wide range of philosophical readings and employing Socratic method of asking questions, examination of place in our lives—especially our concerns, memory, will, will- ence, prudence, and assessment/creation of self. Like Aristotle’s peripatetic version of Plato’s Academy, class takes regular walks together, using UCLA and West Los Angeles as Lyceum, engaging in intellectual dialogue in traditional history of exercising both body and mind. P/NP or letter grading.

40W. Transformations of Cultural Stories across Disciplines and Texts. (Seminar, four hours. En- forced requisite: English Composition 3 or 3H or En- glish as a Second Language 3. Tracing of writing and rewriting of traditional story types, specifically the ad- venture story as represented by Defoe’s Robinson Crusoe and its retelling in Coetzee’s Foe, and the fairy tale as represented by Cinderella and its vari- ous cross-cultural remanifestations. Satisfies Writing II requirement. Letter grading.

41. Understanding Ecology: Finding Interdisciplinary Solutions and Environmental Problems. (Seminar, four hours. Designed for College Honors stu- dents. Exploration of ecological basis of planet’s most important environmental issues, including global cli- mate change, ocean acidification, biodiversity loss, deforestation, pollution, and declining freshwater re- sources and fisheries. Examination of both hard sci- ence and interdisciplinary solutions (social, political, educational) to environmental problems. P/NP or letter grading.

43W. Science, Rhetoric, and Social Influence. (Seminar, four hours. Enforced requisite: English Com- position 3 or 3H or English as a Second Language 3. Science writing, particularly scientific texts, both con- temporary and historical, that have been used to communicate science to and influence large groups of peoples’ beliefs and behaviors. What is it about cer- tain scientific texts that change how we think and have potential to affect social policy? Texts cover vari- ety of topics from evolution to nutrition and food in- dustry to personal climate change. Students are ad- duced to practice science writing them- selves. Satisfies Writing II requirement. Letter grading.

44. Society of Excess: On Waste, Consumer Cul- ture, and Environment. (Seminar, three hours. De- signed for College Honors students. Examination of waste in both real and virtual worlds, looking in inter- disciplinary ways at various cultural representations of trash set against backdrop of society of excess and environment constantly threatened by overflowing and mismanaged waste, including social and cultural responses to physical waste and cyber battle against Internet deb- 

46. Drugs in Society: Interdisciplinary Perspective on Drug Use, Addiction, and Intervention. (Seminar, three hours. Examination of drug use and abuse and consequent social issues and policies both historically and in the contemporary U.S., in- cluding discussion of current research on neurobi- ological properties of different drugs and corre- sponding clinical interventions. P/NP or letter grading.

48. Politics of Reproduction. (Seminar, three hours. Examines how political variables such as local, global, and local interests as they shape and reflect reproductive practices, public policy, and ex- ercise of power. P/NP or letter grading.

49. Evidence in Law, Science, History, and Jour- nalism. (Seminar, three hours. Rigorous study of ways in which lawyers, scientists, historians, and jour- nalists handle evidence, with aim of advancing cross- disciplinary inquiry to produce a common vocabulary and set of concepts that allow for discussion of evi- dential issues in differing fields of inquiry. P/NP or letter grading.

51. Music and Society. (Seminar, four hours. Min- imal experience reading music desirable but not re- quired. Course begins with focus pri- marily, but not exclusively, on music of late-18th through early-20th centuries through multiple analyt- ical prisms: sociological, historical, political, and mu- sical. P/NP or letter grading.

55. Culture and History of Utopias. (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 so- cial, intellectual, and political questions. Satisfies Writing II requirement. Letter grading.

57. Language, Performance, and Culture. (Lec- 

59. Literature and Culture of the American South. (Seminar, four hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Examination of historical imagination as it is expressed in such writers as 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. (Seminar, four hours. Enforced requisite: English Composition 3 or English as a Second Language 36. 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 be- tween literacy 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 Biol- ogy of Aesthetics. (Seminar, three hours. Interdis- ciplinary approach to study of premise that beauty, whether of faces, art works, or other subjects, is pro- cessed by brain and can be understood as neurolog- ical and psychological phenomenon. P/NP or letter grading.

65W. Body-Mind Literacy. (Seminar, four hours. Enforced requisite: English Composition 3. Designed for College Honors students. Exploration of relation- ship between body and mind: when are they most in harmony and when are we alienated from this poten- tial 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, plural- ist 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. (Seminar, three hours; discussion, two hours. Not open to students with credit for Life Sci- ences 3, 4, former Microbiology 7, or Molecular, Cell, and Developmental Biology 70. Historical and scien- tific study of genetic engineering in medicine, agricul- ture, and law, including examination of social, ethical, and legal issues raised by new technology. P/NP or letter grading.

70AL. Gene Discovery Laboratory. (Seminar, three hours; laboratory, five hours. Recommended requisite: course 70A. Laboratory work in genomics research and seminatical approach experiments and concepts taught in course 70A. P/NP or letter grading.

71. Cross-Cultural Approaches to Media History and Culture. (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 con- text. P/NP or letter grading.

73. Elementary Particles in the Universe. (Lec- ture, two hours; discussion, 90 minutes. No special mathematical knowledge required. Examination of el- ementary particle physics, including student- led cur- rent 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 lttu. (Seminar, five 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- ane, to Alexander’s defeat of Darius III. Consider- ation of mutual constructions of other in antiquity. Near Eastern versus Greek testimonia, and art and ar- chaeological evidence of these two civilizations. P/NP or letter grading.

78. Science and Religion from Copernicus to Dar- winism. (Seminar, three hours. Designed for Col- 

79. Personal Financial Health: Theory and Pract- ice. (Seminar, three hours; fieldwork, four hours. Designed for College Honors students. Special econom- ics or mathematics preparation not required. Theory and practice of managing financial health, al- lowing for broad discussion of larger theoretical pic- ture. Topics include affect and practical hands-on look at personal finance, including budget- ing, 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. (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 worlds and Muslin Turks. Their frontier status and liminal culture proved to be mytho- genic, and Cossacks figure prominently in imagina- tion of cultures they impacted over centuries, espe- cially 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 cul- tures. P/NP or letter grading.

82. Community and Labor Development from Ground Up. (Lecture, three hours; discussion, one hour. Introduction to practical applications of commu- nity development and cultural change. Discussion in area, with projects from Community Outreach Part- nership Center within School of Public Policy and So- cial Welfare. P/NP or letter grading.

83W. Politics and Rhetoric of Literature. (Sem- inar, four hours; writing laboratory, two hours. En- forced requisite: English Composition 3 or 3H or En- glish as a Second Language 36. Examination of rela- 

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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. Biologically Based, (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, anticipate and adjust to daily environmental changes, and knowledge of it comes from molecular biology, biochemistry, cell biology, genetics, and genomics. Study of these processes and the accompanying 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.


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 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 honors credit. Honors content noted on transcript. Letter grading.

90. Hollywood and Global Responsibility, (5) Seminar, three hours. Designed for College Honors students to take as a third-year seminar. Honors content required. Honors content noted on transcript. Letter grading.

91. Student Research Program. (1 to 2) Seminar, two hours. Designed for honors students in one of the humanities or social sciences. P/NP or letter grading.

92. 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 success, exploring research interests 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 units. 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. Honors content noted on transcript. Examination of 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 Educa tion (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 preparation for their seminars and conducting of micro-teaching presentations. Guest speakers expand on topics that arise from class discussions. May be repeated once for credit. P/NP grading.

101F. Integrity in Research. (2) Seminar, two hours. Limited to students in CARE, HHMI, MARC, and UC Leads program. 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 participants 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; activity, two hours. Introduction to research process in digital age, offering opportunities to design through exploration of library and Internet resources, exposure to rare and unique materials, experimentation with digital tools, engagement with librarians and other experts, and use of powerful computer platform called Tradestation© in computer laboratory. Analysis of how foreign exchange market works, what financial instruments are used to identify 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 foreign exchange, risk management, and statistics. How to write simple code to generate exchange rate forecasts and to evaluate accuracy of student forecasts. P/NP or 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. (5) (Same as African American and Asian American Studies M160.) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. 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.

102. Scientific Knowledge, Industrial Growth, and Social Policy. (5) Lecture, three hours; laboratory, two hours. Examination, using nanotechnology, of both benefits and risks to economy and society when new technologies are in process of development. P/NP or letter grading.

104. Functions and 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.

105. Global Economy and Social Change. (5) Seminar, three hours. Examination of effects 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 health-care professionals. Letter grading.

106. Imaginary Women. (5) Same as Gender Studies M106.) Seminar, four hours. Designed for junior/senior College Honors students. Study of four fictional cultural archetypes of mother/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.

107. Literature and Political Order: Homer, Shakespear, Dostoevsky. (5) Seminar, three hours. Designed for College Honors students. Examination of political order and questions of violence, power, leadership, and ideology through readings 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.

109. 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 Tradestation© in computer laboratory. Analysis of how foreign exchange market works, what financial instruments are used to identify 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 foreign exchange, risk management, and statistics. How to write simple code to generate exchange rate forecasts and to evaluate accuracy of student forecasts. P/NP or letter grading.

110. Marxist and Post-Marxist Approaches to Cultural Studies. (4) Seminar, four hours. Examination of Marxist and post-Marxist approaches to study of culture, including classic texts, 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-
114. Architecture from Los Angeles: Work of Frank Gehry, Thom Mayne, and Greg Lynn. (5) Seminar, three hours; 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 this 200-year period 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 political context. Students will research and write on range of subjects from alcohol to zoology and become class resource on some relevant topic such as Renaissance medicine, Calvinism, Socialism, Cromwell, Virginia, and women. P/NP letter grading.

121. Psychoanalysis before Freud, and a Little After. (5) Lecture, three hours; discussion, one hour. Examination of how philosophers developed conceptions of themselves through history from early civilizations through Middle Ages, Renaissance, Reformation, scientific revolution, Enlightenment, original, modern world. From d’Annunzio to Freud’s fin de siècle Vienna, and post-Freudian visions; investigation of various interactions of these different conceptions in present day. P/NP or letter grading.

122. Chemical Communication across Tree of Life. (5) Seminar, three hours. Designed for College Honors students. Chemical communication governs relationships among most biological entities, across entire tree of life from viruses to Homo sapiens. Bioinspired devices are using knowledge gleaned from chemosensory systems to change front 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 hypoth- eses, research questions, and conclusions. P/NP 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, and the development of new medical technologies 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, imperialism, and globalization play significant role in cultural, economic, and political organization of places such as the Americas, Africa, and the Middle East. Examining cultural dimensions, social and political organization of various regions of the world. P/NP or letter grading.

128. What We Do When We Laugh Together: Humor, Comic, and Blissful Political Order. (5) Seminar, three hours. Designed for College Honors students. Examination of how various countries have used education to promote social equality and development and analysis of why some countries appear to be making more progress than others. Consideration of how factors such as history, particularly related to colonialism, political economy, and culture affect character and performance of schools. P/NP or letter grading.

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 women’s rights, labor rights, and race/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 ethics and methods of ethnographic fieldwork. Some 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 wary 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 let flourish counterfactual objections to quest for absolute, just, and blissful political order. Examination of this para-
dualistic link between democracy and utopia by tracing its history in works of Aristophanes, Plato, Thomas More, Tommaso Campanella, Francis Bacon, and Charles Fourier to show relevance to contemporary policies. P/NP or letter grading.

135. Poetics and Playwriting 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 were written, and what the fate of lesser-known, lesser-known, and lesser-known dramatic 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 these, was it for profit, or for free? 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: Perspective on Race, Class, Gender, and Culture. (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 meditation andpopular Buddhist texts by Richard Gere to Thich Nhat Hanh to the Dalai Lama. P/NP or letter grading.

138. Empire, Globalization, and Multietnic Storytelling, three hours. Exploration of three aspects of historical evolution of postcolonial and transnational studies through predominantly American multietnic short story. How do our primary works in contemporary short fiction question literary conventions of allegory and the Euro-American literary canon? What manifestations of empire, diasporic mobility, and generic mutability unite or separate our primary creative works? What meditations on identity do our fiction and creative non-fiction works offer as they intersect 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 multietnic short story be the socio-politically subversive narrative genre par excellence? Close readings in comparative literature with creative non-fiction and hybrid narrative forms in works by Aimé Césaire, Amritka Kumar, Jhumpa Lahiri, ZZ Packer, Roxane Gay, and Claire Vaye Watkins. P/NP or letter grading.


140. Dominants and Subordinates in Comparative Psychology: Animal Oppression in Public Education. (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.

141. Biology and Medicine in Postgenomic Era. (5) Seminar, three hours. Seminar explores interdisciplinary research and scholarly activity at the intersection of biology and medicine, and the interdependence of life sciences and human culture. Focus on how how biological science is changing and what are the implications of these changes for our understanding of human life and the world around us.

142. Free Will and Moral Responsibility: From Neuroscience to Philosophy and Back. (5) Seminar, four hours. Survey of motivations, methods, and conclusion of neuroscientific and philosophical investigations of free will. Consideration of neuroscientific arguments that humans are not free when they choose and of philosophical 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 to correspond with philosophical and legal debate on free will. P/NP or letter grading.

M143. Latino Immigration History and Politics. (4) (Same as Chicana and Chicano Studies M124.) Lecture, four hours. Overview of Mexican, Central American, and Cuban immigrants to U.S., examining political, social, and economic contexts out of which different waves of Latin American immigration have emerged. Overview of major debates and major studies. How are you going to contribute to addressing one or more of the goals? P/NP or letter grading.


146. Imagining Global Climate Change. (5) Seminar, three hours. Designed for College Honors students. Global and comparative study of regions in front of climate change as tropic island and poles that visibly confront sea level rise and glacial melt, through study of visual arts, literature, and film. Study of authors and artists from U.S., Australia, New Zealand, Guyana, Mexico, and Madivies to examine threat of climate change in its complex cultural imaginations. P/NP or letter grading.

147. The Anthropocene: An Archaeological Perspective. (5) Seminar, four hours. Examination of new geological period, informally labeled the Anthropocene, in which environment is profoundly impacted by human activities. Evidence that anthropogenic forces have affected species diversity since past 120 thousand years, including loss of biodiversity, burning of fossil fuels, ocean acidification, and ozone depletion. P/NP or letter grading.

M148. Simulating Society: Exploring Artificial Communities. (4) (Also Sociology M118.) Seminar, three hours; computer laboratory, one hour. Examination of social behavior through computer simulations of behavior in artificial communities. P/NP or letter grading.

149. Art and Trauma. (5) Seminar, three hours. Examination of how slavery, war, psychiatric institutionization, and child sexual abuse shape singular artist's perspective. Evidence that art materials be expressed in several ways: external event (e.g., war), internal psychological process (e.g., depression), or symbolic unfolding (e.g., disintegration of individual). Manner in which trauma is embedded in brain and stored in memory is also critical. Exploration of research on memory and trauma, post-traumatic stress disorder (PTSD), and how severe trauma impacts brain development. Application of neuroanatomical and group projects to offer more tangible insight into process of art and trauma. P/NP or letter grading.

150. Solo Performer's Toolbox: Storytelling for Art- ists and TED Talkers. (5) Seminar, three hours. Design 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 process of playwriting and performing breakdown, interpretation, and submission of one-act 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 performing their story. Analysis of dramatic structure, dramatic action, and creation of believable and interesting character. Focus, concentration, imagination, and relation during performance, and maintaining professional decorum and discipline. P/NP or letter grading.

151. Victorian Sexual Scandals. (5) Seminar, three hours. Draped for College Honors 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 and controlling identities, and relations between sexual scandals and legal actions. Sondheim trial of Ernest Boulton and Frederick Park. Examination of extent of queer networks among gay men, transgender individuals, and their apparatus during the time period. Letter grading.

M152. Past People and Their Lessons for Our Own Future. (5) (Same as Anthropology M148 and Geography M153) Lecture, two hours; discussion, two hours. Examination of modern and past people that met varying fates, as background to examination of how other modern people are coping or failing to cope with similar situations. 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 Machiavellian 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 and the English Revolution with emphasis on the political thought of European Enlightenment and its contributions to French Revolution. P/NP or letter grading.

M157. International Relations of Middle East. (4) (Also International Relations M156.) Lecture, three hours; discussion, four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Role of great powers in Middle East, with emphasis on American, Soviet, and Western European policies since 1945. P/NP or letter grading.


160. Asceticism. (5) Seminar, three hours. Designed for College Honors students. Historical overview of literary, philosophical, and theological writings on asceticism, with particular attention to late antiquity and medieval periods. Study of asceticism from desert fathers to medieval female mystics, Weber on Protestantism, Nietzsche on ascetic ideal, and Foucault on modern society. Examination of deviance of self in the context of the political, the social, and the economic with emphasis on the religious, the philosophical, and the psychological. 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 government...
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 responsibility, complicated by public fear, competing commercial interests, and international legal and diplomatic quandaries. P/NP or letter grading.

166. Stories of Cultural Distance and Imposed As- simuliation. (5) Seminar, four hours. Study of how fic- tion, memoir, and film have represented involuntary cross-cultural assimilation as seen from perspective of intimate others, usually family members, coming to terms with their own and their relatives' cultural identity. P/NP or letter grading.

168. Paris: Biography of City from 1715 to World War II. (5) Seminar, three hours. Designed for College Honors students. Exploration of history of Paris from death of Louis XIV to World War II. Study of consequences of rapid urbanization and reasons why Paris became fulcrum for political revolutions. Examination of Paris as focus of modernism, its rebuilding and de- sign under Baron George Hausmann, impact of World War I and expat culture, and city's housing crisis. P/NP or letter grading.


176A. Context of Arab World: Cairo and Alexan- dria. (4) Seminar, four hours; fieldwork, eight hours. Enforced corequisite course 267B. Introduction to some of most important cultural, historical, and polit- ical 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. En- forced corequisite: course 176A. Introduction to some of most important cultural, historical, and polit- ical currents in contemporary Arab world, with special 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 aesthe- thetic issues of science. Study of how bioart blurs distinctions between science and art through combi- nation of artistic and scientific processes, creating wide public debate. Exploration of history of biotech- nology 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 expeditionsary wars since World War II, in- cluding involvement in Vietnam, Korea, Cuba, Iran, Guatemala, Nicaragua, and Chile, and implication of these actions for vitality of American democracy. P/NP or letter grading.


M180. Structure, Patterns, and Polyhedra. (5) (Same as Chemistry M117.) Lecture, four hours; activ- ity, two hours. Exploration of structures and their geometric underpinnings, with examples and applica- tions from architecture (space frames, domes), bi- ology (enzyme complexes, viruses), chemistry (sym- metry, 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 Revo- lution. (5) Seminar, four hours. Designed for College Honors students. Examination of most important de- velopment in making of Western power and hege- mony: rise of new science and its relationship first to Britain, then European, Industrial Revolution. Once seen as solely product of material factors such as abundance of coal, high productive labor, unavailable labor, In- dustrial Revolution is shown as also possessing criti- cal importance for growth of scientific knowledge and its development. 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 biomed- ical accounts of brain-based pathology (and identity) to Mad Pride movement emphasis on mental diver- sity. Enduring philosophical questions regarding per- sonal identity, consciousness, selfhood and mind- body relationship are investigated through consider- ation of conditions such as dissociative identity dis- order, trauma, psychosis, autism, and depression. P/NP or letter grading.

184. Indian and Pakistan: 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 part- ition 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.

193. Journal Club Seminars. (2) Seminar, two hours; discussion, two hours. Study of key research journals and important research articles. Presenta- tion by program faculty members and other leading researchers. May be repeated for credit. P/NP grading.

193B. Journal Club Seminars: Arts and Humanities Summer Research Program. (2) Seminar, one hour; discussion, one hour. Limited to students selected for Humanities Summer Research Program. Study of hu- manities research journals and monographs. Weekly student research reports and presentations by hu- manities faculty members. May be repeated for credit. P/NP grading.

193C. Journal Club Seminars: Mellon Mays Under- graduate Research Scholars. (2) Seminar, one hour; discussion, one hour. Limited to Mellon Mays under- graduate fellows. Study of key research journals and important research articles in arts, humanities, and social sciences. Weekly research reports and presen- tations by Mellon Mays students. Presentations by program faculty members and other leading re- searchers. P/NP grading.

199. Directed Honors Studies. (4) 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 re- search/writing tutorial with director of one Honors Collegium course to pursue in greater depth signifi- cant topics from one college course. May be re- peated for credit. P/NP or letter grading.
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.

The program offers the MS and PhD degrees; graduate study leading to a PhD degree is emphasized. Under special circumstances, and only after consultation with and approval by the Department of Human Genetics, individuals may apply for admission to the MS program. Graduate students are expected to demonstrate integrity, creativity, critical thinking, perseverance, motivation, and determination to work hard; effective and appropriate oral and written communication skills needed for scientific presentation of the data including content, organization, logical flow, grammar, vocabulary, and proper citations; and the ability to design, revise, create, and implement experimental protocols and computational programs. They learn topics including transfer of biological information in a living organism, how genotype affects phenotype (subsuming environment), genetic variation in population, principles of research in genetics and genomics; and themes including evolution of thought in genet- ics and genomics history, how genetic informs disease and vice versa, genomics and integrating current tools in genomics research (statistical analysis, big data, and bioinformatics), and analysis in genetics and genomics.

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

Graduate Degrees
The Department of Human Genetics offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Human Genetics. An MD/PhD program is also offered.

Human Genetics

Scope and Objectives
The goal of the graduate program is to train the next generation of leaders in human genetics. This broad and rapidly evolving field of research incorporates multiple areas of modern experimental biology (including but not limited to molecular and behavioral genetics, epigenetics, developmental biology, cell and developmental biology, imaging, and large-scale omics approaches such as genomics, transcriptomics, and functional genomics) and of computational biology (including bioinformatics and biostatistics). In their research, students tackle Mendelian diseases and genetically complex traits of key relevance to human health. A wide variety of courses is offered to equip future independent researchers with fundamen-

Upper-Division Courses
CM124. Computational Genetics. (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 sequence. Focus on formulating interdisciplinary problems as computational problems and then solving those problems using computational techniques. P/NP or letter grading.

CM136C. Societal and Medical Issues in Human Genetics. (Same as Society and Genetics M102.) Lecture, three hours; discussion, one hour. Requirements: Life Sciences 4. Survey of key technologies that have led to successful application of genomics to biology, with focus on theory behind specific genome-wide technologies and their current applications. Concurrently scheduled with course C236C. Letter grading.

C144. Genomic Technology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 4. Survey of key technologies that have led to successful application of genomics to biology, with focus on theory behind specific genome-wide technologies and their current applications. Concurrently scheduled with course C244. P/NP or letter grading.

199. Special Studies in Human Genetics. (2 to 8) Tutorial, to be arranged. Students select instructor among eligible research faculty and carry out independent research project under instructor supervision. P/NP or letter grading.

Graduate Courses
M203. Stochastic Models in Biology. (4) (Same as Biomathematics M203.) Lecture, four hours. Requisites: Mathematics 170A or equivalent experience in probability. Mathematical description of biological relationships, with particular attention to areas where conditions for deterministic models are inadequate. Examples of stochastic models from genetics, physiology, ecology, and variety of other biological and medical disciplines. S/U or letter grading.

M207A. Theoretical Genetic Modeling. (4) (Same as Biomathematics M207A and Biostatistics M272.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

M207B. Applied Genetic Modeling. (4) (Same as Biomathematics M207B and Biostatistics M237.) Lecture, three hours; laboratory, one hour. Requisites: Biostatistics 200B, 202B (may be taken concurrently) or equivalent coursework or consent of instructor. Covers basic genetic concepts and statistical methods for the analysis 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; labo-
210. Topics in Genomics. (2) Seminar, two hours. Survey of current biological theory and technology used in genomic research. Topics include genomic technologies, functional genomics, proteomics, statistical genetics, bioinformatics, and ethical issues in human genetics. S/U grading.

M211. Mathematical and Statistical Phylogenetics. (4) (Same as Biostatistics M231 and Biostatistics M239.) Lecture, three hours; laboratory, one hour. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolutionary tree methods, models of molecular evolution, phylogeography, and coalescent approaches. Examples from evolutionary biology and medicine. Laboratory for hands-on computer analysis of sequence data. S/U grading.

CM224. Computational Genetics. (4) (Same as Bioinformatics M224 and Computer Science CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Mathematics 33A, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for U.C. 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. 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 requisite: Computer Science 32 or Program in Computing 10C with grade of C– or better. Recommended: one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with probability, statistics, linear algebra, and algorithms expected. Designed for engineering students as well as students from biological sciences and medicine whose work has become data-intensive science. Bottleneck in being able to make sense of biological processes has shifted from data generation to statistical models and inference algorithms that can be applied to 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.

M229S. Seminar: Current Topics in Bioinformatics. (4) (Same as Biological Chemistry M229S and Computer Science CM229S.) 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. Topics include genome analysis, regulatory genomics, association analysis, statistical design, isolated and admixed populations, population substructure, 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.

M236B. 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 Evolutionary Biology 121, Human Genetics 236A, or Molecular, Cell, and Developmental Biology 174. Statistical and population genet- ics 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 Ge-netics. (4) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts concepts of ourselves as individuals and of our place in biological universe, concepts of race/ethnicity and gender, ability of DNA-based forensics to identify specific individuals, ownership and commodification of genes, issues of privacy and confidentiality, issues of genetic discrimination, issues of predictive genetic testing. Discussion of human cloning for reproductive and therapeutic purposes. Exposure to medical genetics cases. Discussion of role of whole genome sequenc- ing 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. Requisite: Life Science 4, Survey of key technologies that have led to suc- cessful application of genomics to biology, with focus on theory behind specific genomics technologies 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 ge- nomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from mouse to human. Discussion of localization 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. Requisite: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 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 and one half hours; outside study, seven hours. Introduction to computational approaches in bioinformatics, genomics, and computational genet- ics 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 ge- nomic technologies. Computational techniques and methods include those from statistics and computer science. Letter grading.

262. Topics on Scientific Careers. (2) Lecture, two hours. Limited to graduate students. Covers topics related to scientific careers such as scientific writing and presentation (including to non-scientific audi-
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Christopher M. Stevens, PhD (Germanic Languages)
Brent H. Vine, PhD (Classics)

**Scope and Objectives**

The prime aim of the interdisciplinary Indo-European Studies program is the integral study of Indo-European culture, based on comparative linguistics, archaeology, social structure, and religion. The PhD in Indo-European Studies is offered with two alternative major emphases: Indo-European linguistics and Indo-Iranian or other specialized language area studies.

**Graduate Study**

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

**Graduate Degrees**

The Indo-European Studies program offers Master of Arts (MA), Candidate in Philosophy (CPHil), and Doctor of Philosophy (PhD) degrees in Indo-European Studies.

### Indo-European Studies

#### Lower-Division Courses

**19. Fiat Lux Freshman Seminars.** (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

**M20._visible Language: Study of Writing.** (5) Same as Asian M20, Near Eastern Languages M20, Slavic M20, and Southeast Asian M20.) Lecture, three hours: discussion, one hour. Consideration of concrete means of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 4th millennium BC. While literate civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of corresponding earliest developments, their antiquity and, in case of China and Mesoamerica, their evident isolation mark these centers as loci of independent developments in writing. Basic characteristics of early scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semiotic language representation. Origins and development of early non-Western writing systems. How Greco-Roman alphabet arose in 1st millennium BC and how it compares to other modern writing systems. P/NP or letter grading.

**M70. Origin of Language.** (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 period of destruction of the Mycenaean culture about 1200 BC. Aegean area and rest of Europe.

**140. Food in Language and Myth.** (4) Lecture, three hours; discussion, one hour. Introduction to study of food in fields of linguistics and mythology. What is special about language used to talk about food, what is history of food words, and how does language impact appreciation of food? How do myths and narratives revolving around food function in different cultures? Students explore history of food words and learn how to analyze food myths. Students become aware of how language in food is manipulated and how to tell more effective stories about food. P/NP or letter grading.

**M150. Introduction to Indo-European Linguistics.** (3) 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 divinities and their names; symbolic systems in social context; myths, folk narratives, belief systems; relationships with other traditions; literary continuations of mythopoeic material. Concurrently scheduled with course C260. P/NP or letter grading.

**M166. Introductory Hittite.** (4) Same as Ancient Near East M166.) 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 transcription. P/NP or letter grading.

**189. Advanced Honors Seminars.** (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

**189HC. Honors Contracts.** (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
Graduate Courses

200. Proseminar: Indo-European Studies. (2) Sem-
inar, two hours every other week. Required of grad-
uate Indo-European studies students during first year:
Introduction to graduate-level research in Indo-Euro-

205. Indo-European Phonology. (4) Lecture, three
hours. Requisites: course M150, Linguistics 110.
Study of proto-Indo-European phonology and its his-
torical development into most important of oldest at-
tested descendant languages. S/U or letter grading.

210. Indo-European Morphology. (4) Lecture, three
hours. Comparative study of proto-Indo-European
nominal and verbal morphology and its historical de-
velopment into most important of oldest attested de-
cendant languages. S/U or letter grading.

215. Indo-European Syntax. (4) Lecture, three
hours. Requisites: course 210. Comparative and his-
torical study of syntax in proto-Indo-European and
most important of oldest attested descendant lan-
guages. S/U or letter grading.

M222A-M222B. Vedic. (4-4) (Same as Iranian
M222A-M222B and South Asian M222A-M222B.)
Lecture, three hours. Preparation: knowledge of San-
skrit 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.

M230A-M230B. Old Iranian. (4-4) (Same as Iran-
ian M230A-M230B.) Lecture, four hours. Studies in gram-
mars and texts of Old Persian and Avestan. Compar-
avative considerations. Only course M230B may be
repeated for credit. S/U or letter grading.

250A-250B. European Archaeology. (4-4) Seminar,
three hours. Studies in ancient European archaeologi-
cal 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 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-Euro-
pean mythological and poetic traditions and recon-
struction of their common sources. Topics include di-
vinites and their names; symbolic systems in social
context; myths, folk narratives, belief systems; rela-
tions with other traditions; literary continuations of
mythological material. Concurrently scheduled with
course C160, S/U or letter grading.

(4-4) Seminar, three hours. Requisite: course 210. Se-
lected topics in Indo-European comparative grammar
for advanced graduate students. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Sem-
inar, to be arranged. Preparation: apprentice person-
cell 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.

596. Directed Individual Studies. (2 to 8) Tutorial,
to be arranged. S/U grading.

597. Preparation for PhD Qualifying Examinations.
(2 to 8) Tutorial, to be arranged. S/U grading.

599. Research for PhD Dissertation. (2 to 8) Tuto-
rial, to be arranged. S/U grading.

Information Studies

Graduate School of Education and
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Loretta M. Gaffney, MLS
Mahnaz Ghaznavi, MLIS
Esther S. Grassoian, MLS
Joan Kaplowitz, PhD
Candice A. Mack, MLIS
Cynthia L. Medavilla, PhD
Luiz H. Mendes, MLIS
Mary E. Menzel, MLIS
Eva Minkick, MLIS
Maureen Whalen, JD, MLIS

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 de-
velopment, archives, preservation, and catalog-
ing. Whether students choose to pursue a mas-
ter's degree or a PhD, they graduate with a
broad understanding of both theory and practice.

Students with master's degrees go on to ca-
reers as librarians, archivists, and information
professionals in a variety of organizational set-
tings. The PhD focuses on the preparation of scholars in the field.

For information about the department and pro-
grams, see the department website.

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 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, and technological, and institutional contexts.
Topics include information markets and economies;
power of cultural and media institutions; state inter-
ests 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
moral, intellectual, and cultural 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. Exam-
ination of social and cultural contexts of global spread
digital networks and systems. Exploration of eth-
ical, infrastructural, and political questions raised at
intersection of technologies and cultures. Topics in-
clude 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. De-
signed for undergraduate students. Examination of in-
formation technology in society, including Internet,
World Wide Web, search engines (e.g., Google,
Yahoo, Lyco), retrieval systems, electronic pub-
lishing, and distribution of media, including newspa-
pers, 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.

39. Honors Seminars. (1) Seminar, three hours. Lim-
itied to 20 students. Designed as adjunct to lower-divi-
sion lecture course. Exploration of topics in greater
deepth 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.

97. Variable Topics in Information Studies. (4)
Seminar, four hours. Designed for freshmen/sopho-
more, but open to all undergraduate students. Ex-
ploration of changing set of basic concepts and is-
sues in study of information technology, and society and culture 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. Open to students who have completed an Undergraduate Research Center. May be repeated twice. P/NP grading.

180. Special Topics in Information Studies. (4) Lecture, three hours; discussion, one hour. Designed for juniors or seniors. Selected topics or issues related to social, cultural, economic, or political aspects of information and information systems. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with topic change. P/NP or letter grading.

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) Seminar, three and one half hours. Seminar to comparative method as procedure for supervised research or other scholarly work), three hours. Legal and policy concerns of networked technologies from international perspective. Emphasis on intellectual property regimes, information and economic development, information work and occupations, information and service, productivity, paradoxa, and sectoral analyses of national and global information economies. Letter grading.

201. Ethics, Diversity, and Change in Information Professions. (4) Lecture, two hours; discussion, two hours. Service learning course that serves as forum to discuss, learn, and understand ethical challenges of multicultural information society that shape societal, professional community, and individual views and impact professional practice, decision making, and public policy. Letter grading.

202. History of Books and Literacy Technologies. (4) Lecture, two hours; discussion, 90 minutes. Issues in history of print, reproduction, and examination of processes 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.

205. Cyberspace Law and Policy. (4) Lecture, four hours. Legal and policy concerns of networked technologies embedded in information and work in diverse societies. Exploration of importance of thinking about, in design, evaluation, and engagement with information institutions and technologies, ranging from archives and libraries to Internet. Aspects of information society that shape and are shaped by cultural, societal, professional, community, and individual values, including exploration of impact of such values on professional practice, decision making, and public policy. Letter grading.

206. Introduction to Economics of Information. (4) Seminar, three and one half hours. Introduction to key concepts, scholars, and studies in economics of information. Topics include economic value and measurement of information, information industries and markets, public goods theories of knowledge and information, network externalities, consequences of intellectual property regimes, information and economic development, information work and occupations, information and service, productivity, paradoxa, and sectoral analyses of national and global information economies. Letter grading.


208. Scholarly Communication and Bibliometrics. (4) Lecture, four hours. Preparation: one inferential statistics course. Bibliography, citation theory, method, and empirical studies at intersection of scholarly communication and bibliometrics, seeking to understand flow of ideas through published record, whether in print, electronic, or other forms. Presentation of work of key writers and scholars in areas of information society policy and issues. Letter grading.

210. Global Media and Information. (4) Lecture, three and one half hours. Examination of the role of the media and the meaning of cultural diffusion and diversity. Theorizing of media and culture mean in era of distributed networks and massive technological diffusion loops. Part of this involves problem of how to work with differing ways of knowing. Survey shows that it is widely accepted that global cultures and communities differ in ways they practice knowledge, understanding, and making meaning of their worlds. How we draw boundaries between culture and community has become increasingly complicated, as culture becomes increasingly mediated and community has elements of local place and global imagination. How are political, economic, and cultural identities being shaped in global media culture? How does the shape of networked power functions? How do these shape our heritage, economy, politics, and identity? Letter grading.

211. Artifacts and Cultures. (4) Lecture, two hours; discussion, two hours. Exploration of social, cultural, and technical practices through which meanings, representations, works, objects, and ideas are generated. Concepts are recorded, reproduced, mediated, collected, and appropriated; they are sometimes forged, stolen, or subverted and are often shared, juxtaposed, exhibited, commodified, remixed, or repurposed. Their formats may be oral and written, verbal and pictorial, aural and visual, and in-scribable and tangible. Concepts are single-mediated and multi-mediated and in multidimensional and multimedia, static and dynamic, numerical and narrative, scholarly and popular, and analog and digital. They constitute documents, records, data sets, and objects. Theorizing of concepts and their properties, types, and relationships: media formats, genres, materials, states, contexts, authorship, user roles, funcations, aesthetic qualities, roles, costs, affordances, and use values. Letter grading.

212. Values and Communities in Information Professionals. (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 importance of thinking about, in design, evaluation, and engagement with information institutions and technologies, ranging from archives and libraries to Internet. Aspects of information society that shape and are shaped by cultural, societal, professional, community, and individual values, including exploration of impact of such values on professional practice, decision making, and public policy. Letter grading.

213. Current Issues in Librarianship. (4) Lecture, two and one half hours; discussion, one hour. Overview of historical and evolving conceptual foundations of librarianship, including professional associations, key practices, social context of library services, and current issues in library studies. S/U or letter grading.

214. Informatics: Principles and Practices. (4) Lecture, three and one half hours. Theories, principles, and professional practices of informatics, including social analysis of information systems, values and design, infrastructural dynamics, user experience, and prospective analysis. S/U or letter grading.

217. Information Services in Culturally Diverse Communities. (4) Lecture, four hours. Issues in provision of information services in multilingual and multilingual society. Understanding role of information institutions in promoting community and preserving ethnic heritage. Letter grading.

228. Assessment, Measurement, and Evaluation of Information Organizations and Services. (4) Lecture, four hours. Introduction to assessment and evaluation as formal processes of inquiry with individual components. Demonstration of use of evidence gathered for planning, decision making, and accountability in information organizations. Review and implementation of various methods and approaches to design of assessment and evaluation studies. Letter grading.

M229C. Introduction to Slavic Bibliography. (2) (Same as Slavic M229) Lecture, two hours. Introduc- tion to Slavic and East European bibliography for the humanities and social sciences. Emphasis to be determined by requirements and background of enrolled students. Topics include relevant library terminal access to Slavic and East European bibliographic tools; acquisition of Slavic and East European bibliographic tools; 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 resources management in corporate, government, and other organizational settings, including analysis of organizational information flow,
classification and filing systems, records retention scheduling, records protection and security, reprographics and image management technology, and litigation support. Letter grading.

234. Children’s Literature. (4) Lecture, four hours; discussion, one half hour. Study of children’s literature across literary and historical periods, with an emphasis on the development of children as readers and writers. Letter grading.

235. Children’s Literature. (5) Seminar, two hours; discussion, one half hour. A directed study of a specific topic in children’s literature, such as picture books, folk literature, or juvenile fiction. Letter grading.

236. Approaches to Materials of Texts and Media. (4) Seminar, two hours; discussion, 90 minutes. Introduction to traditional and current thinking about materiality of texts, documents, libraries, 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 resituated 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, temperature, humidity, 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 process. Basic instruction provided, and students work on group project for duration of term. S/U grading.


241. Digital Preservation. (4) Lecture, three and one half hours. Nature of digital media and networking necessitates reformulation of traditional concepts such as authenticity, authorship, and original; information systems and metadata that are specifically designed to manage preservation process; new ethical, rights, and copyright issues; and economic, legal, and policy tools with which to manage digital information over long term. Introduction to strategies, techniques, and standards, as well as continuing challenges related to preserving born-digital/born-networked/digitized materials (e.g., electronic records, digital archives, video games, scientific simulations, digital humanities environments, sound and moving image materials, media arts, and personal digital archives). Implications for digital preservation of new technologies and their applications. Letter grading.

245. Information Access. (4) Lecture, two hours; discussion, one hour. Requisites: courses 200, 260. Provides students with knowledge and skills enabling information professionals to link users with information. Overview of structure of literature in different fields; information-seeking behavior of user groups; communication with users; development of search strategies using print and electronic sources. Letter grading.

246. Information-Seeking Behavior. (4) Lecture, three hours; discussion, one hour. Study of factors and processes associated with human beings needing, using, and acting on information. Topics include information theory, human information processing, information flow among social and organizational levels, 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 spectrum of disciplines in three 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, eight half hours. Introduction to current knowledge representation and its application in healthcare processes. Topics include data structures used for representing knowledge (e.g., network-based models), different data models for representing spatio-temporal information, rule-based implementations, current statistical methods for discovery of knowledge (e.g., machine learning, statistical classifiers, and hierarchical classification), and basic information retrieval. Review of work in constructing ontologies, with focus on problems in implementation and definition. Survey of current tools and libraries used in semantic and structured representations (e.g., SNOMED, UMLS). Letter grading.

254. Medical Information Infrastructures and Information 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 computer networking concepts, work topologies, and high-level (distributed computing, peer-to-peer topologies) networking. Introduction to security and encryption in networked environments. Letter grading.

255. Medical Decision Making. (4) (Same as Bioengineering M228.) 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 medical decision making. 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.

256. Information Resources for Business. (4) Lecture, four hours. Requisite: course 245. Introduction to information needs, both individual and societal, of business guides, encyclopedias, directories, yearbooks, indexes, loose-service libraries, government publications, databases, and other sources of business literature. 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 personal—through which documents and other forms of information are organized and represented. Design, development, and evaluation of techniques and tools, including data models, metadata schema, search engine architecture, and systems in support of curatorship, stewardship, discovery, and use. Letter grading.

260. Description and Access. (4) Lecture, three and one half hours. Survey of information organization and access tools. 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 institutions; and data sharing and reuse; and introduction to national and international policy for stewardship of data. Assessment of data archival needs of one research center and group project for the 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 application of policies and resources of data management, data citation and metrics, technologies for data access and curation, provenance, intellectual property, policy roles of multiple stakeholders in data 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.

269. Seminar: Information Structures. (4) Seminar, four hours. Requisites: course 280, one other information structure course. Specialized studies in selected areas of descriptive and bibliographical cataloging, subject vocabulary, subject analysis, and metadata. May be repeated once. Letter grading.

270. Systems and Information. (4) Lecture, four hours. Social, cultural, and technical practices through which information and media infrastructures—networks, systems, models, 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 organizational value systems, at levels ranging from local to global. S/U or letter grade.

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, as well as searching, searching for information and metadata, writing database queries, calling application program interfaces (API), and handling multiple serializations formats (XML, JSON, CSV, Excel). Emphasis on common file formats, standard and non-standard 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 use of technology demonstrations and class discussions.
Recommended for students in any discipline involved in design or implementation of information technologies.

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 varied as anthropology, media studies, sociology, and urban studies. Investigation of range of theoretical, methodological, and applied literatures to develop and design training in collaboration with one community of student choice in Los Angeles area. Examination of community-based methods of interaction and fieldwork (participatory, 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 and one half hours. Informational professionals, scholars, activists, and information creators/designers/architects focus on questions of culture and community to engage students in understanding information as a cultural object. 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 Information Searching. (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' access-seeking, processing, emphasis on search strategy and subject access through use of thesaurus and other vocabularies. Letter grading.

278. Information and Visualization. (4) Lecture, two hours; discussion, 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 interface 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 into useful dialog with contemporary visualizations? Letter grading.

279. User Experience Design. (4) Seminar, four hours; laboratory, one course from 246, 247, 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, index coding, classification, faceted processing, assessment 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) Seminar, four hours. Understanding of nature, uses, and practice of research appropriate to information studies. Identification of research problems and design and evaluation of research methods. Social science research writing, code of research ethics, methods. Emphasis on inquiry methodology and empirical research. S/U or letter grading.


282. Design as Research Method. (4) Seminar, three and one half hours. 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 themes of students have opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

284. 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 are 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.

285. 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.

289A. 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; 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.

289B-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, theses, indexing, 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.

289A. Doctoral Seminar: Research Methods and Design. (4) Seminar, four hours. Survey of quantitative, qualitative, and historical research designs. Ethical issues; conceptualization and measurement; indexes, scales, and sampling; experimental, survey, field, and evaluation research; data analysis. Letter grading.

290B-C. 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, scien- tometry, social network analysis. Letter grading.

297. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice placement by teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for current seminar or instruction at UCLA. May be repeated for credit. S/U grading.

400. Professional Development and Portfolio Design. (2 to 4) Lecture, two hours; discussion, two hours. Preparation; completion of information studies core courses. Drawing on literature from many fields, 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 MLS degree. S/U grading.

410. Management Theory and Practice for Information Professionals. (4) Lecture, two hours; discussion, two hours. Principles and practice of management as applied to information professionals work. Letter grading.


422. College, University, and Research Libraries. (4) Lecture, four hours. Organization, administration, collections, facilities, finances, and problems of college and university libraries and their relationships within institutions of which they are part. Functions of research libraries and work of their staffs in serving scholars. Letter grading.


425. Library Services and Programs for Children. (4) Lecture, two hours; discussion, two hours. Theory and practice of service to children in public libraries. Overview of professional library service to children aged 14 and under; provides opportunities for students to gain experience in particular skills needed to provide this 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 youth aged 11 and over; opportunities for students to gain experience in particular skills needed to provide this service. Discussion of special challenges in working with young people and psychology of teenagers. S/U or letter grading.

431. Archives, Records, and Memory. (4) Lecture, four hours. Overview of historical and evolving conceptual foundations, major professional institutions, key practices, and contemporary issues and concerns of archival studies and American archival profession, as well as other fields interested in archives, records, and memory. S/U or letter grading.


433. Community-Based Archiving. (4) Lecture, three and one half hours. Builds on student understanding of value and limitations of archives and the 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, professional methodologies, funding and long-term sustainability, ownership, access and use, technological implementation, and collaborations. Letter grading.

434. Archival Use and Users. (4) Lecture, three and one half hours. Requisite: course 431. Examination of who uses archives and why, with ultimate goal of creating ways to better understand and meet needs of these users as well as engage new audiences in archival use. While archivists have traditionally conceived of their users as academic researchers, more thorough investigation expands this conception of users to include genealogists, artists, K-12 students and educators, families of victims of human rights abuse, community members, and members of general public. Methods for studying users, ways to conduct outreach to target user groups, and ways in which archivists can engage general public. Letter grading.

438A. Seminar: Advanced Issues in Archival Science—Archival Appraisal. (4) Seminar, four hours. Requisite: course 431. Evaluation and examination of contributions of key figures in development of archival appraisal theory; identification and evaluation of distinct movements in archival appraisal; identification of cultural, historical, sociological, and technological movements that can have impact on appraisal methodologies. Letter grading.

438B. Seminar: Advanced Issues in Archival Science—Archival Description and Access Systems. (4) Seminar, four hours. Requisite: course 431. Exploration of history of archival description and access systems in the U.S. and their development since World War II; data collection; access tools and implications of these issues in development of online archival access systems. Letter grading.

439. Seminar: Special Collections. (4) Seminar, two hours; discussion, 90 minutes. Students work with special collections materials on one focused theme or topic and have to think through research aspects of exhibit or symposium or collection assessment and then create well-focused and curated agenda for presentation, exhibition, or preservation of materials. Letter grading.


448. Information Literacy Instruction: Theory and Techniques. (4) Lecture, four hours. History, theory, methods, and materials of user education/bibliographic instruction in libraries and other information retrieval environments. Examination of variety of user education/bibliographic instruction theories and methodologies, including overview of planning and administration. Identification of problems in user education/bibliographic instruction. Applications of methods to teaching libraries and information resources. S/U or 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, health sciences environment and policies, information systems and technology. Letter grading.


464. Metadata. (4) Lecture, four hours. Introduction to variety of metadata provided for digitized and other electronic information resources. Introductory theory and practice designing and applying metadata. S/U or letter grading.

473. Information Technology and Libraries. (4) Lecture, four hours. Overview of major components of library automation: circulation control, acquisitions and serials, public access information systems, and data conversion. Relationships among various automation entities, including internal library automation, networks and vendors (such as bibliographic utilities, regional networks, and online services), and automation of parent organizations (universities, municipalities, corporations, and government agencies). Developments in standards for information processing and new information technologies. Letter grading.

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.
Scope and Objectives
The cornerstone of the Physiological Science curriculum is vertebrate physiology, with emphases on integrative functions. The research and educational programs of the Department of Integrative Biology and Physiology focus on integrative physiology at several levels of organization from molecules to living organisms, microscopic structures to macroscopic organization, and cellular properties to organ functions. Students receive comprehensive instruction in all areas of physiological science, while elective courses reflect faculty research expertise, including developmental neurobiology, gene regulation/neural development, cellular neurobiology, molecular neurobiology, neuromuscular physiology, neuroendocrine physiology, cardiac physiology, diet and degenerative disease, auditory and visual behavior, biomechanics of rehabilitative medicine, muscle cell biology, inflammatory cell biology, vascular biology, cardiac electrophysiology, neuromotor control, and social control of neuronal plasticity.

Applicants interested in pursuing graduate study may apply directly to the interdepartmental Molecular, Cellular, and Integrative Physiology PhD program or the interdepartmental Neuroscience PhD program.

Undergraduate Study
Physiological Science BS
Learning Outcomes
The Physiological Science major has the following learning outcomes:

- Demonstrated broad knowledge of the fundamentals of vertebrate anatomy and physiology
- Demonstrated ability to address scientific questions and solve problems quantitatively, learn to form hypotheses, design and perform experiments, analyze data, and interpret results
- Reading, understanding, and application of critical thinking to primary scientific literature
- Understanding of how to assess key questions and hypotheses
- Interpretation of results and conclusions
- Discrimination of quality through critique
- Appreciation for research by participating in one or more laboratory experiences
- Clear and fluent communication of scientific knowledge
- Effective written and verbal skills

Preparation for the Major
Life Sciences Core Curriculum
Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Life Sciences 7A, 7B, 7C, 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, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

To enter the Physiological Science major, students must complete Chemistry and Biochemistry 14A, 14B, and 14C, or 20A, 20B, and 30A, Life Sciences 7A, 7B, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, or Life Sciences 30A, 30B, and 40, or Statistics 13, and Physics 1A or 5A, with a minimum grade of C in each course and a grade-point average of 2.5 or better in all 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. 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.

5. Issues in Human Physiology: Diet and Exercise. (5) Lecture, three hours; discussion, 30 minutes; laboratory, 90 minutes. Not open to Physiological Science majors. Basic introduction to principles of human biology, with special emphasis on roles that exercise and nutrition play in health, and prevention and management of such 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...
mammalian brain function, and epigenetics. Introduction to basic principles of molecular biology and biochemistry. Letter grading.

110. Introduction to Biological Science. (3) Lecture, four hours; lab, three hours; discussion, one hour. Requisites: course 7A, 7B, or 7C. Introduction to basic concepts of biology, cellular processes, evolutionary theory, and human anatomy and physiology. Letter grading.

111A-111B. Foundations in Molecular Biology. (8–9) Lecture, four hours; discussion, two hours. Requisites: courses 110, 111A, and 111B. Introduction to the molecular basis of life, including genetics, gene expression, and protein structure and function. Letter grading.

111L. Molecular Biology Laboratory. (3) Lecture, four hours; lab, three hours. Introduction to practical aspects of molecular biology. Letter grading.

112. Cell Biology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110, 111A, and 111B. Introduction to the structure and function of cells, including cell signaling, cell division, and cell cycle control. Letter grading.

113. Genetics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110, 111B, and 111C. Introduction to the principles of genetics, including genetic linkage, mutation rates, and population genetics. Letter grading.

114. Eukaryotic Molecular Biology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110, 111B, and 111C. Advanced topics in eukaryotic molecular biology, including gene regulation, mRNA processing, and protein synthesis. Letter grading.

115. Principles of Biophysics. (4) Lecture, three hours; lab, three hours. Introduction to the principles of biophysics, including the behavior of biomolecules and the thermodynamics of biological systems. Letter grading.

116. Introduction to Microbiology. (3) Lecture, three hours; discussion, one hour. Introduction to the principles of microbiology, including bacterial genetics, bacterial physiology, and microbial ecology. Letter grading.

117. Neurobiology of the Nervous System. (4) Lecture, four hours; discussion, one hour. Requisites: courses 110, 111B, and 111C. Introduction to the structure and function of the nervous system, including neuronal communication and nervous system development. Letter grading.

118. Molecular and Cell Biology. (4) Lecture, four hours; lab, three hours; discussion, one hour. Requisites: courses 110, 111B, and 111C. Introduction to the molecular and cellular biology of eukaryotic organisms, including the synthesis and degradation of macromolecules. Letter grading.

119. Biochemistry. (4) Lecture, four hours; lab, three hours; discussion, one hour. Requisites: courses 110, 111B, and 111C. Introduction to the principles of biochemistry, including the structure and function of macromolecules. Letter grading.

120. Integrative Biology and Physiology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110, 111B, and 111C. Introduction to the principles of integrative biology and physiology, including the regulation of physiological processes and the impact of disease on physiological systems. Letter grading.

121. Biomedical Technology and Physiology. (4) Lecture, four hours. Requisites: courses 111A, 111B, Life Sciences 2 or 7C, Physics 1A and 1B, and 1C. Introduction to the principles of biomedical technology and the impact of technology on diagnosis and treatment of disease. Letter grading.


M140. Hormones and Behavior in Humans and Other Animals. (4) Lecture, three hours. Requisites: course 111B or M180B, Life Sciences 3 and 4 (4 may be taken concurrently), Life Sciences 2 or 7C, Physics 1B or 1BH or 2B or 4BL, or 6C or 6CH. Not open for credit to students with credit or current enrollment in courses 107 or Neuroscience 102.

144. Neural Control of Physiological Systems. (4) Lecture, four hours. Requisite: course 111B or M180B. Role of central nervous system in control of respiration, circulation, sexual function, and bladder control. Introduction to each section to be developed by combination of lecture and open discussion. Concurrently scheduled with course C244. Letter grading.

M145. Neural Mechanisms Controlling Movement. (5) (Same as Neuroscience 145.) Lecture, four hours. Requisite: course 111A or M180A or Neuroscience M101A. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.

146. Principles of Nervous System Development. (5) (Same as Neuroscience 146.) Lecture, four hours. Requisites: courses 107 (or Neuroscience 102) and 111A (or M180A), Molecular, Cell, and Developmental Biology M175A, Neuroscience M101A, or Psychology M117A). Examination of construction of vertebrate nervous system as series of integrated steps beginning with proliferation of neural precursor cells and culminating in complex highly ordered system. Topics include neurulation, regionalization, neurogenesis, migration, axonal outgrowth, and synapse formation. Letter grading.

147. Neurobiology of Learning and Memory. (5) Lecture, four hours; discussion, one hour. Requisite: course 111A or M180A. Changes in central nervous system that accompany learning, with emphasis on cellular mechanisms.

149. Systems Biology and Mechanisms of Major Cardiometabolic Diseases. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 7A, 7B, 7C. Strongly recommended: Chemistry 153A. Designed for juniors/seniors. Integration of principles gained through basic science curriculum with modern systems biology concepts, approaches, and presently undetected mechanisms of selected human cardiometabolic disease states. Requisites: courses 111B or M180B, Life Sciences 3 and 4 (4 may be taken concurrently), Life Sciences 2 or 7C, Physics 1B or 1BH or 2B or 4BL, or 6C or 6CH. Not open for credit to students with credit for Evolutionary Biology C170 or to students with credit for Evolutionary Biology M170 and to students with credit for Evolutionary Biology M171A-M171B-M171C.) Letter, four hours; discussion, 90 minutes. Requisites: courses 111B or M180B, Life Sciences 3 and 4 (4 may be taken concurrently), Life Sciences 7A, 7B, 7C, and 30A and 30B or Mathematics 3A and 3B or 31A and 31B. Challenges of faces by communication networks and common strategies used by signaling networks to address these challenges. Letter grading.


M180A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A (14C may be taken concurrently), Life Sciences 2 or 7C, Physics 1B or 1B or 5C or 6B. Not open for credit to students with credit for Psychological Science M111A and Psychological Science M115B and Psychological Science majors, grade of C– or better is required to proceed to Neuroscience M110B or Psychological 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.

M180B. Molecular and Developmental Neurosci- ence. (5) Lecture, four hours; discussion, 90 minutes. Requisites: courses 111A or M180A (or Molecular, Cell, and Developmental Biology M175A and M175B or Neuroscience M101A or Psychology M117A; Neuroscience majors must have grade of C– or better) or Psychology 115, Life Sciences 3 and 4 (4 may be taken concurrently), or DeVore, Molecular biology of sensory receptors: focus on voltage dependent channels and neurotransmitter receptors. Molecular biology of supra-
molecular mechanisms: synaptic transmission, axonal transport, cytokines, and muscle. Classical experiments and modern molecular approaches in developmental neurobiology, P/NP or letter grading.


M181. Biological Bases of Psychiatric Disorders. (4) Same as Molecular, Cell, and Developmental Biology M191B. Introduction to psychiatry with an emphasis on understanding methods and techniques of research in neuropsychology and interpretation of experimental results, and how they bear on concepts of psychology. Development of culminating paper. May be repeated for credit. 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 seniors/juniors. Corequisite: course 111A or M180A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M171A). Pre-requisite: major must have been declared before the fall of their junior year. Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.


194A. Research Group Seminars: Physiological Science. (2) Seminar, two hours. Required of undergraduate students in research traineeships such as MARC and UC Leads programs. Discussion of research methods and current literature in fields of finance of faculty members or students. May be repeated for credit. Letter grading.

194B. Research Group Seminars: Physiological Science. (5) Seminar, two hours. Requisite: course 111A or M180A. Introduction to current literature in fields of finance of faculty members or students. May be repeated for credit. Letter grading.

195. Field Studies in Physiological Science. (4) Tutorial, one hour; fieldwork, eight hours. Limited to seniors. Supervised field studies in specific careers related to physiological science. May not be repeated for credit and may not be applied toward elective requirements for major. Individual contract with supervising faculty member required. P/NP grading.

196. Research Apprenticeship in Physiological Science. (4 to 10) Laboratory, three hours; discussion, one hour. Limited to seniors/junior. Open to students interested in junior/senior honors program students. Directed independent research for departmental hours with faculty member, involving definition of research topic and extended reading and research. May be repeated for credit. Individual contract required. Letter grading.

198A. Honors Research in Physiological Science. (4) Tutorial, 12 hours. Enforced requisites: courses 111A, 111B, 193 (193 may be taken concurrently). Limited to junior/senior physiology honors program students. Directed independent research for departmental hours with faculty member, involving definition of research topic and extended reading and research. May be repeated for credit. Individual contract required. Letter grading.

198B. Honors Research in Physiological Science. (4) Tutorial, 12 hours. Enforced requisites: courses 111A, 111B, 193 (193 may be taken concurrently). Limited to junior/senior physiology honors program students. Directed independent research for departmental hours with faculty member, involving definition of research topic and extended reading and research. May be repeated for credit. Individual contract required. Letter grading.

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 M202L. Lecture, three hours; discussion, two hours. Requisites: courses 111A (or M180A or Physics 5C). Advanced use of cellular physiology methods. Membrane 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.

CM203. Human Physiological Systems for Bioengineering I. (4) Same as Bioengineering CM203. Lecture, three hours; laboratory, two hours. Preparations of human molecular and cellular mechanisms in bioengineering. Not open for credit to Physiology M202L. 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.
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.

C226. Biological Clocks. (4) Lecture; three hours. Requisites: courses 111A and 111B, or M280A 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. Disruption of these daily or circadian oscillations. Examination of molecular, cellular, and system-level organization of these timing systems and their use in maintaining homeostatic mechanisms of body and impact on nervous system. Concurrently scheduled with course C126. Letter grading.


235. Advanced Dynamical Systems Modeling of Physiological Processes. (5) Lecture; four hours; laboratory; two hours. Examination of art of modeling and dynamical systems models of physiological systems and of dynamical principles inherent in physiological systems. Letter grading.

241. Neural Plasticity and Repair. (4) Lecture; four hours. Preparation: basic neuroscience background. Progress in basic and clinical neuroscience provides new insight to understand mechanisms of cell repair and strategies to promote neural healing. Focus on physiological, molecular, and anatomical basis governing plasticity of brain and spinal cord and their clinical implications. Letter grading.

C244. Neural Control of Physiological Systems. (4) Lecture; four hours. Requisite: course 111B or M180B. Role of central nervous system in control of respiration, circulation, sexual function, and bladder control. Material for each section to be developed by combination of lecture and open discussion. Concurrently scheduled with course C144. Letter grading.

245. Neural Mechanisms Controlling Movement. (5) Lecture; four hours. Requisites: course 111A or M180A or Neuroscience M101A. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.

250A. Muscle Dynamics. (4) Lecture; four hours. Integrated study of electrical and dynamic parameters of muscle-action, including topics in length-tension and force-velocity interrelationships; critical analysis of electromagnetic and digital computer techniques. Letter grading.


C252. Musculoskeletal Anatomy, Physiology, and Biomechanics. (4) Lecture; three hours. Requisites: course 111A. Anatomical, physiological, and mechanical characteristics of cartilaginous, fibrous, and bony tissues examined in normal and abnormal stress situations. Tissue growth processes, normal physiology, and repair mechanisms analyzed in conjunction with musculoskeletal injuries and effects of exercise. Concurrently scheduled with course C152.


263. Neuronal Mechanisms Controlling Rhythmic Movements. (4) Lecture; one hour; discussion, one hour. Requisite: course M145. Advanced topics on brainstem mechanisms responsible for controlling cyclic and stereotypic movements such as mastication and locomotion. Emphasis on cellular neurophysiology and interaction between neuronal networks. Introduction to primary literature and techniques used in these areas. Students expected to critically evaluate data and conclusions drawn. S/U or letter grading.

270A-270B. Modern Concepts in Physiology. (4–4) Lecture, two hours; discussion, two hours. Study and evaluation of primary research literature. Study of foundations of modern techniques in physiology research and current design. Lecture grading.

270A. Highly recommended requisite or corequisite: course 111A. Foundation for experimental study of principles of muscular and neural physiology and cellular and molecular neurobiology including cellular and molecular controlling membrane excitability, neuronal circuits, sensorsimotor regulation, special senses, cortical functions, and neural plasticity. 270B. Highly recommended requisite or corequisite: course 111B. Foundation for experimental study of principles of systems physiology, including endocrinology, transport physiology, and neural, cardiovascular, and pulmonary physiology.


M290. Seminar: Comparative Physiology. (2) (Same as Ecology and Evolutionary Biology M290.) Seminar, two and one half hours. Discussion of specific topics in comparative physiology of animals. Topics vary from year to year, with emphasis on systems physiology, neuroendocrinology, or behavioral physiology. S/U or letter grading.


292. Evolution and Development of Auditory System. (2 or 4) Seminar; two hours. Discussion of specific topics related to evolution, embryology, morphogenesis, cytodifferentiation, and onset of function of auditory system, with special attention to centrifugal pathways. Emphasis on literature sources as well as current methodological approaches. Two-hour seminar presentation required for 2 units; seminar paper and two-hour seminar presentation required for 4 units. S/U or letter grading.

293A-293B-293C. Seminars: Musculoskeletal Function and Adaptation. (2 to 4 each) Seminar, one hour. Requisites: courses 138, 260. Selected topics on muscular determinants of movement, metabolic aspects of exercise, and mechanics of connective tissue. Students required to present two-hour seminar. S/U or letter grading.

294. Recent Advances in Neurophysiology. (1) Seminar; one hour. Requisite: Life Sciences 2 or undergraduate degree in science. Critical examination of recent directions and publications that focus on synaptic function. Student presentations, readings, and participation in discussions required. S/U grading.


296. Research Seminar: Physiological Science. (2) Review of literature, discussion of original research, and analysis of current topics in physiological science. May not be applied toward MS or PhD course requirements. May be repeated for credit. S/U grading.

297. Seminar: Muscle Cell Biology. (2 to 4) Seminar; two hours. Selected topics in muscle cell biology. Students required to present two-hour seminar. May be repeated for credit.

298. Seminar: Nervous System Development. (1 to 2) Seminar; two hours. Developmental neurobiology, such as neuronal migration, axonal guidance, gene expression, and synaptogenesis. Weekly primary literature student presentations. One-hour seminar presentation on assigned weekly reading required of all students; students enrolled for 2 units must also complete written analysis of additional primary literature papers. May be repeated for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. 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.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Consent and approval of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

506. Individual Studies for Graduate Students. (2 to 8) Tutorial; to be arranged. To enroll for letter grade, petition signed by faculty sponsor, graduate adviser, and graduate affairs committee chair must be submitted prior to end of second week of class. Eight units may be applied toward degree requirements for MA 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.

507. 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.

508. 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.

Integrative Biology and Physiology / 465
INTERNATIONAL AND AREA STUDIES

Interdepartmental Program
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International and Area Studies
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Nile S. Green, PhD (History)
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Namhee Lee, PhD (Asian Languages and Cultures)
Adam D. Moore, PhD (Geography)
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 students to some of the major issues relevant to a specific region or theme. The majors seek 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. Premajors 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 theme 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.

Premajor

Incoming freshman and transfer students may be admitted as Asian Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: (1) International and Area Studies 1, (2) one area studies course from Art History 29, 31, Asian 30, 70A, 70B, 70C, Chinese 50 (or 50W), M60 (or M60W), Clusters 25A, History 9A, 9C, 9E, 11B (or 11BH), 97G, 97M, 97N, International and Area Studies 31, 33, Japanese 50, 70A, 70B, 70C, 70D, 70M, 143, Southeast Asian M60, Southeast Asian M60, or 90, (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., Chinese 6 or 6A, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, Korean 6, Thai 6, Vietnamese 6). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the Asian Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, 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 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 into 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 the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted into 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. Two international and Area Studies courses from Central and East European Studies 91, Comparative Literature 1C, 2CW, 4CW, Dutch 10, English 88G, French 12, 14 (or 14W), 41, 60, German 50B, 57, 59, 61A through 61D, History 1C (or 1CG), 97C, International and Area Studies 40, Italian 42B, 46, 50B, Portuguese 40A, Romanian 90, Russian 25 (or 25W), 30, 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, (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, 106C, 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.

The Major

The major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses. To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.

Area Studies:


International Themes:

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 BAH), 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 2DW or 4DW), 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 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, 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 UC grade-point average of 2.0. Area Studies: (1) Three humanities and arts group 1 courses from Art History C142A, C142B, 144, Comparative Literature 177, Ethnomusicology M108A, 108B, 113, 161K (2 units), Film and Television 106C, Music M131, Portuguese 130A, 130B, 141B, 142A, 142B, Spanish 120, World Arts and Cultures C139; (2) three social sciences group 1 courses from African American Studies M154C, M178, Anthropology 161, 162, Chicana and Chicano Studies 111, 117, M132, C141, 143, 151, 169, Community Health Sciences 132, Gender Studies M147C, Geography 114, 181, 182A, 182B, History 159, 160A, 160B, 162A, Labor and Workplace Studies M125, M144, Political Science 124C, 154A, 154B, Public Health M106, Sociology 186, 191J; and (3) one additional elective course selected from either item 1 or 2 above.


The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of three upper-division courses with focus on earlier historical aspects of the region or 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, Chicana and Chicano Studies M119, M159B, 184, M187, History 157B.

Honors Program

The honors program is designed to offer highly motivated students pursuing one of the International and Area Studies majors (African and Middle Eastern Studies, Asian Studies, European Studies, Latin American Studies) the opportunity to design and conduct their own independent research under the guidance of a faculty adviser and consists of a three-semester directed-study series of courses—International and Area Studies 198A, 198B, 198C—culminating in a honors thesis.

Admission

To enter the honors program, students must (1) have completed all preparation for the major requirements (therefore have a UC grade-point average in those courses, (2) have a 3.5 grade-point average in all upper-division coursework for the major, (3) obtain agreement from a faculty member to supervise their honors thesis, and (4) formally submit an application to the honors program. Application should normally
be made during the junior year so as to best plan for completion of the honors thesis during the senior year. Contact the academic coun-
selor 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 cumula-
tive grade-point average of 3.5 or better in upper-
division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an honors thesis (approximately 35 to 50 pages) determined to be of honors quality by a committee of two faculty members—the chair of International and Area Studies and the faculty adviser of the student.

The African and Middle Eastern Studies minor is designed for students who wish to augment their major with a concentrated study of the history, culture, and society of the Africa and the Mid-
dle 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 Liter-
ature 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 History 9D, 97F, Mid-

dle Eastern Studies 50C, or Theater 4) toward the international societies and cultures prepa-
ration 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, 124, 141, M151, Armenian C151, C152, C153, Art History C120, Comparative Literature M148, M162, Ethnomusicology M161N, M161T (must be taken twice to equal one 4-unit course), Hebrew M113, C140, Iranian 141, 142, Islamic Studies 151, Jewish Studies M142, M144, 175, (2) two so-
cial sciences group 1 courses from Anthropol-
yogy 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 maxi-
mum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region to-
ward the area studies additional elective cate-
gory (item 3 above). The course may be se-
es M110, 130, Jewish Studies M150A, 150B, M151A, M155, M182A, M182B, or M182C.

One upper-division language course (ad-
anced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the mi-
or 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 mi-
or. Successful completion of the minor is indi-
cated on the transcript and diploma.

African Studies Minor
The African Studies minor is designed for students who wish to augment their major with a concentrated 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 Liter-
ature 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 History 9D, 97F, Mid-

dle Eastern Studies 50C, or Theater 4) toward the international societies and cultures prepa-
ration 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, 124, 141, M151, Armenian C151, C152, C153, Art History C120, Comparative Literature M148, M162, Ethnomusicology M161N, M161T (must be taken twice to equal one 4-unit course), Hebrew M113, C140, Iranian 141, 142, Islamic Studies 151, Jewish Studies M142, M144, 175, (2) two so-
cial sciences group 1 courses from Anthropol-
yogy 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 maxi-
mum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region to-
ward the area studies additional elective cate-
gory (item 3 above). The course may be se-
es M110, 130, Jewish Studies M150A, 150B, M151A, M155, M182A, M182B, or M182C.

One upper-division language course (ad-
anced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the mi-
or 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 mi-
or. Successful completion of the minor is indi-
cated 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 concentrated 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 Liter-
ature 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 29, Asian 30, 70A, 70B, 70C, Chinese 50, 50W, M60, M60W, Clusters 25A, History 9C, 11B, 97G, Interna-
tional 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 C120, 130A, 130B, 135, 139, C150A, C150B, 151, 152, 154, 155, C156, 157, CM160, 165, 174, 176, 180, 185, 191B, Com-
pative Literature M176, Ethnomusicology

470 / International and Area Studies
The European Studies Minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of Europe from an interdisciplinary and modern perspective.

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 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 5, 8A, 8B, 8C, 8E, International and Area Studies 50, Portuguese 408, 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.

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 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 5, 8A, 8B, 8C, 8E, International and Area Studies 50, Portuguese 408, 46, and Spanish 44) toward the international societies and cultures preparation requirement.

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 116Q, Art History C148A, C148B, C148C, C152A, C152B, C152D, C148B, Asian American Studies 111, 113, 122, 123B, M130A, M131A, 131B, 131C, 132A, 132B, Chinese C138, 140A through 140D, M153, C175, 182, M183, 184, 186, 191A, History 152, 170A, 172B, Japanese 140A, 140B, 140C, C149, 165, 172, 191A, Korean 150, 175, 176, 180A, 180B, 184A, or 191A.

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.
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 2D) or 4D), 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 group 1 courses as follows: (1) two humanities and arts group 1 courses from Art History C154C, 154D, Asian 151, 162, 163, Comparative Literature C178, 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 115P, 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, Singapure, 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 2D) or 4D), 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 group 1 courses as follows: (1) two humanities and arts group 1 courses from Art History 161B (must be taken twice to equal one 4-unit course), South 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 310-825-4985.

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 the world. P/NP or letter grading.

2. Introduction to Latin America. (5) 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.

3. 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.

4. 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.

5. 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.

6. 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.
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 around world. Hands-on experiential programs offered for students participating in UCLA Travel Study Program. Field trips included to gain first-hand experience. May be repeated with topic and/or location change. Offered in summer only. P/NP or letter grading.

111A. Art of Citizen Diplomacy. (2) Seminar, two hours. Examination of theory, tools, and practice of civic engagement by highlighting student leadership. Provides 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 Nahautl. (4–4-4) (Same as Chicana and Chicano Studies M162A-M162B-M162C). Semester-long language courses in Nahautl. Taught primarily in Nahautl. Examination of Nahautl (Aztec) language of central Mexico at intermediate level. Coverage of Nahautl grammar, with equal emphasis on reading, writing, conversational, and comprehension. P/NP or letter 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.

188. Special Courses in International and Area Studies. (4) Seminar, three hours. Program-sponsored experimental or temporary courses, such as those taught by resident or visiting faculty members. May be repeated for credit with topic change. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. 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.

 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 discourses
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 a 3.5 GPA in courses applied toward the major (including 198A, 198B, 198C) and an overall GPA of 3.0.

Highest honors are awarded to students who complete the major (including courses 198A, 198B, 198C) with a 3.75 GPA and who produce an exceptional thesis.

Study Abroad

International Development Studies majors are highly encouraged to study abroad in developing areas of the world. Students can do so through a variety of programs with various lengths (summer or during the academic year). More information about study abroad programs is available through the UCLA International Education Office 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 include countries of Asia, Eastern Europe, Africa, Middle East, and Latin America. P/NP 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 economic realities of developing world, which include countries of Asia, Eastern Europe, Africa, Middle East, and Latin America. 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 lead to 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

110. Economic Development and Culture Change. (4) (Formerly numbered 158A.) Lecture, three hours; discussion, one hour (when scheduled). Introduction to theoretical traditions in development studies, with focus on interactions between states, market and cultural value systems, with selected case studies in developing nations. Letter grading.

1120. 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.

1230. 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.

150. Selected Topics in International Development Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more topics related to international development. May be repeated for credit with topic change. P/NP or letter grading.

158. 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.

185. 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 honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


192. Undergraduate Practicum in 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, non-profit setting coordinated by International Development Studies. Additional supervision to be provided by internship site supervisor. Students meet with advisor and provide final reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.


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 apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

### International Migration Studies

**International Migration Studies**

**Interdisciplinary Minor**

**College of Letters and Science**

11248 Bunche Hall
Box 951487
Los Angeles, CA 90095-1487

**International Migration Studies**

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, 151 English 134, German 175, History 145A, 146B, 146C, Political Science 143C, M181B, Psychology 129C, 133G, Slavic CM114, Sociology 116, 154, 156, Urban Planning 141; (2) three 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.


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.

Islamic Studies

See Near Eastern Languages and Cultures

Italian

College of Letters and Science

212 Royce Hall
Box 951535
Los Angeles, CA 90095-1535

Italian

310-825-1940

Dominic R. Thomas, PhD, Chair

Professors

John A. Agnew, PhD
Massimo Ciavolella, PhD (Franklin D. Murphy Professor of Italian Renaissance Studies)

Thomas J. Harrison, PhD
Lucia Re, PhD, Dottore in Lettere
Stefania Tutino, PhD

Professors Emeriti

Luigi Ballerini, Dottore in Lettere
Franco Bettì, PhD
Marga Cottino-Jones, PhD, Dottore in Lettere
Edward F. Tuttle, PhD

Associate Professor

Peter J. Stacey, PhD

Assistant Professor

Andrea Moudaeres, PhD

Senior Lecturer SOE

Elissa A. Tognazzi, PhD

Lecturer

Hoang T. M. Truong, PhD

See Near Eastern Languages and Cultures

For students with a background in Arabic, Greek, Persian, or Turkish, upper-division courses at the 110 level can be substituted for the 100 level course.
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, 108, 112, 113, 114 selected in consultation with the undergraduate adviser.

**French Field**

**Preparation for the Major**

Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; French 1, 2, 3, 4, 5, 6, and 12 or 14.

The Major

Required: Italian 100, 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. 25 (or 26 or equivalent as determined by placement test), 46.

The Major

Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Portuguese 130A through 191 selected in consultation with the undergraduate adviser.

Spanish Field

Preparation for the Major

Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Spanish 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 hours):

- Italian 5, 6, and one course from 42A, 42B, 46, 50A, 50B.

Required Upper-Division Courses (20 hours):

- 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.


7. Italian Conversation. (2–2–2) Seminar, three hours. Enforced requisite for course 8A: course 2; for 8B: course 3; for 8C: course 4. Each course may be repeated once for credit. P/NP or letter grading.

9. Intensive Italian. (12) Lecture, 20 hours. Intensive language program equivalent to first year of college Italian (courses 1, 2, 3) and designed to develop basic language skills. Offered in summer only. P/NP or letter grading.

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.

24A. 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 Bernini’s sculptures. P/NP or letter grading.

24B. 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 Middle Ages and Renaissance, 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 primary art forms—language and culture, film, theater, music, art, and literature. 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.
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.

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


102A-102B-102C. Italian Cultural Experience in English. (4–4–4) Lecture, three hours. Study of cultural development of Italy. P/NP or letter grading.

102A. Roots of Western civilization; social and artistic achievements of Greek society. Maecenas, Pliny, Dante, Boccaccio, Giotto, rise of Italian merchant class. 102B. Renaissance discovery of human genius; crucial period between Machiavelli and Galileo; 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, Ungheretti, Montale, Pasolini, Orsette, Morante, Ginzburg, Calvino, Fo, Eco, Celati, and Tabucchi. P/NP or letter grading.

121. Literature and Film. (4) Lecture, three hours. Comparison 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, sports, contemporary arts, mass media, politics, music, and sports. P/NP or letter grading.

124. Food and Literature in Italy. (4) Lecture, three hours. Profile of Italian history and culture through analyses of gastronomic documents, food traditions, and literary and visual works. Emphasis on late Middle Ages, Renaissance, and Risorgimento, or modern and contemporary movements such as Cucina Turistica. Examination of relation of Italian traditions of food and eating with health, body, gender, community, politics, biodiversity, and environment. P/NP or letter grading.

125. Italian through Opera. (4) Lecture, three hours. Enforced requisite: course 102B. Introduction to traditional Italian opera as means of appreciating culture of Italy, art form of opera, and study of Italian language at advanced level through reading of libretti. Six masterworks of Italian opera tradition—Il Barbiere di Siviglia, La Bohème, Pagliacci, Otello, Tosca, and La Traviata—offer culturally authentic contexts to learn about operas, their characters, plots, settings, and music. P/NP or letter grading.


140. Italian Novella from Boccaccio to Basile in Translation. (4) Lecture, three hours. Analysis of development of Italian novella in its structural, historical context, and folk material. Special emphasis on how Italian novella influenced other European literatures. P/NP or letter grading.

150. Modern Fiction in Translation. (4) Lecture, three hours. Select issues in 20th-century thought traced in writers of international fame, with focus on current trends and styles of authors such as Umberto Eco’s The Name of the Rose, Pasolini’s The Ragazzi, Pirandello’s The Late Mattia Pascal, and Calvino’s The Cosmicomics. P/NP or letter grading.

151. Italy and Asia. (4) Lecture, three hours. Examination of portrayals of Italy and Italian culture in Asia, and ways in which Asia and Italy view each other through eyes of writers, travelers, and modern media. Discussion of how Italy has evolved from relatively homogeneous society into multiethnic country that includes growing Asian and Asian-Italian population. P/NP or letter grading.

152. Italy between Europe and Africa. (4) Lecture, three hours. Knowledge of Italy 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 formed 18th-century to 19th-century view of experi- enced 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 roles, images of masculinity and femininity, patriarchy, myths of Madonna and Latin lover, condi- tion of women in Italian society through history, polit- ics, literature, film, and other media. Italian majors re- quired. Enforced and tested credits in P in grading.

180. History of Italian Language. (4) Lecture, three hours. Main forces that have shaped Italian in stan- dard 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.

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.

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 re- quired. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Italian Studies. (4) Lecture, three hours. Research workshop in an area of Italian studies; unique Italian literature topics covered in regular depart-
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 a 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 hour discussion of the theory and practice of criticism. Presentation, discussion, and application of fundamental currents in aesthetics and criticism from Plato and Aristotle to present, including thematic and genre criticism, poststructuralist approaches, and feminist criticism. Letter grading.

210. Studies in Early Italian Literature. (4) Lecture, three hours. Topics include origins of Italian language and study of early texts, Scolas Siciliana and early poetry of Central and Southern Italy, and Dolce Sti 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. Petrarca's Canzoniere. (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. Variable Topics. Variable-content seminar on themes and issues of 15th-century literature, with coverage of authors such as Petrarch or Boccaccio. S/U or letter grading.

215B. Dante's Other Works. (4) Lecture, three hours. S/U or letter grading.


216A. Renaissance Theater. (4) Lecture, three hours. S/U or letter grading.

216B. Italian Topics. (4) Lecture, three hours. Variable-content seminar on themes and issues of Renaissance literature, with coverage of authors such as Vasari, Leonardo, or Botticelli. 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. 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. Thorough 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-Nevio, exploration of some major works that have made contemporary Italian literature famous throughout the world, with special emphasis on study of formalistic modes adopted by the neo-avant-garde. 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 Streli, 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. S/U or letter grading.

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, and diachronic points of view. May be repeated for credit, but core progression departs from phonology (e.g., syllable types, prosodic patterns, phrasal phonetics), moves through morphologic constituents, passing to sentence sequences (coordination, ellipses, etc.) S/U or letter grading.

224. Italo-Romance Dialectology. (4) Lecture, three hours. Three-hour course that examines the differentiation of late spoken Latin into myriad varieties spoken in Italy. Attention to discrete language types (e.g., Sardinian, Ladino, Friulian, and Franco-Provençal). Consideration of present-day sociolinguistic pressures. S/U or letter grading.

225. Cultural History of Italian Language. (4) Lecture, three hours. Historical survey of development of Italian language from medieval times to unification of country in 1861. Questioni della lingua, general acceptance of Florentine speech, and its evolution into national language. S/U or letter grading.


236A-236B. Seminars: 18th Century. (4–4) Seminar, three hours. S/U or letter grading.


238A-238B. 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 undergraduates and graduate students with consent of instructor. Conspicuous diversity animating Italian society articulated through class, gender, and ethnohistorical groups to be studied across range of texts, some selected from literary canon, but others pure oral (tales, songs, proverbs, curses and cures, secular and ritual drama). S/U or letter grading.

265B. Women in Italian Culture. (4) Lecture, three hours. Designed for graduate students. Conditions of women within Italian society, with concentration on specific works produced by women and/or representing women's conditions in either medieval/renaissance or contemporary time. S/U or letter grading.

260C. Studies in Italian Cinema. (4) Lecture, three hours. Designed for graduate students. Italian cinema compared with other art forms of Mediterranean 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.

299. 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 person must be teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
The Labor and Workplace Studies minor offers an opportunity to learn about the workplace and the social, political, and economic forces that influence it. The program emphasizes the institutions of the labor market, public policy, employment relations, unions, and working-class movements. It also explores issues of race, class, and gender in the workplace. The interdisciplinary approach gives students exposure to disciplines in addition to their own majors; students should plan to take courses from multiple departments, as disciplinary breadth is encouraged.

The program is intended for students who wish to gain an in-depth understanding of the broad array of issues related to labor and the workplace. Students are encouraged to plan, with the faculty adviser and minor coordinator, either a coherent integration of courses according to a thematic or 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 major and this minor. The faculty adviser certifies completion of the program.

To enter the minor, students must be in good academic standing (2.0 grade-point average or better), have completed 45 units, and file a petition and meet with the faculty adviser and minor coordinator in 9244 Bunche Hall, 310-206-0812. Students are encouraged to meet early with the academic adviser to declare the minor and design a coherent program of coursework.

**Required Courses (28 units minimum):** Seven courses, with no more than two lower-division courses (8 units), selected from African American Studies M114C, Chicana and Chicano Studies M125, M127, M128, 129, Economics 150, 151, Gender Studies M137E, M163, History 141B, 146A, 146B, Labor and Workplace Studies M1A, M1B, M1CW, 10, 101, 114C, M116, M117, M119, M121, M122, M123, M125, 126, M127 M128, M136, M144, M149, M165, M166A, M166B, M167, M170 through M175, 177, M180, 181, 182A, 182B, 187, 188, 194A, 194B, 195A, 195B, 199, Political Science 116A, Public Policy 141, 145, Sociology 157, M163, 171, 173. Students may petition, prior to enrollment in the course, to apply other topical courses with substantial labor and workplace studies content.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

#### 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 the 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.**

- **M10. Introduction to Labor and Workplace Studies. (6) Lecture, three hours; discussion, one hour. Assumptions about work, including why some work is favored, whether those with good jobs really are better people than those without, and how this understanding of work and value is expressed, to a 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.**

- **M19. Fiat 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, to illuminating many paths of discovery at UCLA. P/NP grading.**

- **M114C. African American Political Thought. (4) (Same as African American Studies M114C and Political Science M180A.) Lecture, three or four hours; discussion, one hour (when scheduled). Intensive introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been applied and interpreted by African Americans. Debates and conflicts in black thought, to managerial initiatives, way in which organized labor has handled issues of class, race, ethnicity, gender, and immigration status; and challenges facing workers in 21st century and their institutional responses in Los Angeles. 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 personal transformation and growth. P/NP or letter grading.**

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**Labor and Workplace Studies / 481**

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**Labor and Workplace Studies Interdisciplinary Minor College of Letters and Science 9244 Bunche Hall Box 951478 Los Angeles, CA 90095-1478**
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 underlie successful negotiation. Experiential course in which students learn to develop sound 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 processes of asymmetrical labor market participation of Asian and Pacific Islander American communities, with emphasis on key role that Asian and Pacific Islander American students can play in supporting labor struggles of low-income immigrants. P or F 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 and neighborhoods) in urban poverty, with particular focus on Mexican and Central American immigrant populations in Los Angeles. Exploration of major theoretical models that explain urban poverty. Comparison of the comparative context while exploring differences between Mexican and Central American immigrants. Social conditions and forces that help us understand lives of low-income labor market workers. Looking at differences between two major Latino-origin populations in Los Angeles. Critical analysis of new forms of urban poverty in contemporary American society. Letter grading.

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 communities from developing to their potential. How to strengthen and how to preserve community resources in Pico-Union neighborhood in Los Angeles. Research entails historical analysis, reviews, interviews, electronic asset mapping, web-based data processing and analysis, oral and written reports, and cyber-based research. Letter grading.

M123. Chicano/Latino Community Formation: Critical Periods and Issues in Chicano/Latino Studies (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.

126. Farm Worker Transnational Struggle. (4) Lecture, three hours; discussion, one hour. Focus on historical and contemporary issues farm workers face in a restructuring economy, and class, race, and gender dynamics that shape their work experiences and economic and political opportunities in society at large. Study also covers gender, race, and class conflicts in workplace and intercommunity relations that are equitable and in contemporary society. Topics include political and cultural legacy of farm workers' struggle in U.S. and its long-lasting impact on labor movement and immigrant movements and their movements. Special focus on assessing and understanding role farm worker-led labor and civil rights movements have had in promoting multietnic and multiracial campaigns for workplace justice and community empowerment. 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.

127. 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 Movements. Letter grading.

128. 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 work, two hours. Survey of issues and policy decisions in Los Angeles—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 of multiple communities across Los Angeles basin. 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; field work, five hours. Exploration of complex relationship between working-class families and communities 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 practices 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 communities who have been excluded from some of the benefits that have come to students in course M136 involving oral histories, research, and analysis in urban settings. 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. Students design 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. Media: Gender, Race, Class, and Sexuality. (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 among Chicana and Chicano movements. Special focus on assessing and understanding role farm worker-led labor and civil rights movements have had in promoting multietnic and multiracial campaigns for workplace justice and community empowerment. Students develop theoretical and practical understanding of farm workers' experiences concerned with race, sexuality, feminism, and human rights. Through comparative study of women's movements in diversity of political systems as well as national and transnational arenas, students gain understanding of historical contexts and political conditions that give rise to women's resistance and of major debates in field of study. P/NP or letter grading.

M149. Media: Gender, Race, Class, and Sexuality. (5) (Same as Communication M149 and Gender Studies M149.) Lecture, four hours; discussion, one hour. Limited to junior/senior Communication Studies and Gender Studies majors and Labor and Workplace Studies minors. Examination of manner in which media culture induces patriarchal and social dominant and colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peopie and social justice organizations engage with dominant and subordinated groups are presented and often misrepresented in media. Investigation and employment of practical applications of communications and feminist theories for understanding ideological nature of stereotyping and politics of representation through use of media, guest presentations, lectures, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.

152. 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 movement toward social and racial justice 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 has to offer in terms of arts and racial and social justice movement art-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 (social activist 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.

M156. Sociology of Race and Labor. (4) (Same as African American Studies M156 and Sociology M156.) Lecture, three hours; discussion, one hour. Limited 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 and contexts in which labor unions and other unions have excluded people of color from jobs and unions, as well as circumstances under which workers and unions have organized people of color into union efforts and workplaces 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 about immigrant experience, and work to collectively develop student publication on immigrant students in higher education. P/NP or letter grading.

M166B. Research on Immigration Rights, Labor, and Higher Education. (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-
Latin American Studies

Interdepartmental Program
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Patricia Arroyo Calderón, PhD (Spanish and Portuguese)
Efraín Kristal, PhD (Comparative Literature, French and Francophone Studies, Spanish and Portuguese)
Elizabeth A. Marchant, PhD (Comparative Literature, Gender Studies)

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 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 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.


M262. HIV/AIDS and Culture in Latin America. (4) (Same as Community Health Sciences M262.) Lecture, 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.

M264. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) (Same as Anthropology M264 and Community Health Sciences M264.) Lecture, three hours. Recommended preparation: Community Health Sciences 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audiotape. Letter grading.

M268A-M268B. Seminars: Recent Latin American History. (4) (Same as History M268A-M268B.) Seminar, three hours. Course M268A is requisite to M268B. 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 or letter grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC, S/U grading.
596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated, but only 4 units may be applied toward the minimum graduate course requirement. S/U or letter grading.

597. Preparation for MA Comprehensive Examinations. (4) Tutorial, to be arranged. Ordinarily taken only during term in which student is being examined. S/U grading.

598. Research for and Preparation of MA Thesis. (4) Tutorial, to be arranged. Only 4 units may be applied toward minimum graduate course requirement. S/U grading.

LAW

School of Law

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Todd J. Schneider, JD
Sarah R. Wetzstein, JD
Paul Wonsowicz, JD

Adjunct Assistant Professors

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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 (JD).

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

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

156. American Political Thought Seminar. (3) Seminar, nine hours. Examination of American political thought from founding to writings of Abraham Lincoln. Readings include Locke's Second Treatise of Government, Declaration of Independence, Federalist numbers 10 and 51, and numerous writings and speeches of Lincoln, including extensive portions of Lincoln-Douglas debates. Emphasis on class discussion. Letter grading.

161. Consumer Bankruptcy Policy Seminar. (3) Seminar, 13 hours. Examination of consumer bankruptcy policy with one architect of 1978 Bankruptcy Code. Discussion of debt payment in ancient Babylon where spouses and siblings could be sold into slavery for nonpayment of relative’s debt. Examination of bankruptcy in U.S. history and analysis of heart of consumer bankruptcy policy, such as when debtors should be faced with the consequences of their own behavior, what property debtors should keep, and how debtors can put together repayment plans. P/NP or letter grading.


170. Race and Racism in California Legal History, 1846 to Present. (4) Seminar, 14 hours. Limited to freshmen/sophomores. Exploration of California legal history, with focus on issues of race and racism, beginning with 19th-century transition from Mexican Alta California to U.S. territory and statehood. Topics include state measures affecting California Indians in 19th century, African Americans in California’s 19th-century history, measures used to control Chinese immigration laws designed to prevent racial intermingling, Alien Land Laws aimed at Japanese residents of California, relocation of Japanese Americans after Pearl Harbor. California’s response to U.S. immigration from dust bowl during great depression, post-World War II through 1960s measures aimed at equal employment, and rental housing, and cases of initiative in modern era. P/NP or letter grading.

173. Topics in American Constitutional History. (4) Lecture, three hours. Introduction to major themes, events, and cases in American constitutional history. U.S. Supreme Court and other sources of constitutional meaning, including popular movements and expressions of constitutional principle from actors in other branches of federal government and in states. Emphasis on historical background and ideological context for particular constitutional controversies at various points in American history, with more formal analysis of particular decisions and competing methods of constitutional interpretation considered. Topics include origins of judicial review, debates over meaning of federalism in early republic, slavery and constitutional Reconstruction Amendments, laissez-faire constitutionalism, citizenship and empire, origins of civil liberties, New Deal constitutionalism, and pre-history of Brown versus Board of Education. P/NP or letter grading.

175. Seminar: Individual Rights Protected by U.S. Constitution. (3) Seminar, two hours. Limited to juniors/seniors. Broad introduction to and examination of individual rights protected under Bill of Rights and 14th Amendment to U.S. Constitution, including freedom of speech and press, religious freedom, right to privacy (including procreative rights) and due process of law, constitutional protection against discrimination based on race and gender, and criminal procedure protections. Emphasis on principal Supreme Court cases establishing scope of those rights and their limits. Letter grading.

180. Special Topics in Law. (4) Lecture, four hours. Topics of special interest to undergraduate students. Specific subjects may vary each term depending on particular interest of instructors or students. May be repeated for credit. P/NP or letter grading.

182. Law and Popular Culture. (4) Lecture, four hours. Focus on interface between two important subjects—law and popular culture. Students view series of films or television shows related to law, lawyers, and legal system. Discussion of pop culture treatment of subjects such as adversary system, good and bad lawyers, female lawyers, lawyers from lesbian, gay, bisexual, and transgender community, minority lawyers, work life of lawyers, legal education, ethical issues, jury system, and criminal and civil justice, drawing on film theory and filmmaking technique to deepen understanding of interpersonal relationships between law and popular culture. Illumination of ways in which pop culture products both reflect and shape curricular views about law and lawyers. Offered in summer only. P/NP or letter grading.

183. Law and Order. (2) Lecture, two hours. Introduction to basic principles of criminal law. How to read and interpret judicial cases and provisions of penal code to learn how American criminal justice system works. Discussions structured to simulate experience of typical law school classroom. P/NP or letter grading.

184. Introduction to Legal Education. (4) Lecture, four hours. Preliminary introduction to legal pedagogy and overview of American legal system. Analysis of appellate and U.S. Supreme Court cases and legislative materials to develop foundational law school skills and become familiar with principles of both scholarly and practice-oriented legal analysis. Topics include introduction to case analysis, reading cases, exploring precedent and stare decisis, separation of powers, and statutory interpretation. P/NP or letter grading.

185. Corporate Mock Trial. (4) Lecture, four hours. Introduction to basic principles of business law, such as how law applies to various business entities, duties and liabilities of corporate officers and directors, and shareholder derivative suits. American legal system and how litigation progresses from filing of complaints through trial. Students participate in mock trial at end of course. P/NP or letter grading.

186. Law and Order. (4) Lecture, four hours. Introduction to basic principles of criminal law. How to read and interpret judicial cases and provisions of penal code to learn how American criminal justice system works. Discussions structured to simulate experience of typical law school classroom. P/NP or letter grading.

187A. Legal History Colloquium. (3) Seminar, two hours. Corequisite: course 193. Reading of scholarly papers prepared by school faculty members and other scholars in law, economics, history, and political science. Preparation of critiques and discussion of issues in seminar setting with author of papers. P/NP or letter grading.

187B. Politics and Political Regional Law Colloquium. (3) Seminar, two hours. Corequisite: course 193. Limited to College Honors students. Lectures on alternative theoretical approaches (including realism, institutionalism, and constructivism) to understand relationship between politics and international law. Weekly presentations on topic by 10 leading law and political science scholars from the U.S. and abroad. Reading of scholarly papers, preparation of critiques, and discussion of issues in seminar setting with authors of papers. P/NP or letter grading.

188. Study Abroad Program. (1 to 6) Seminar, two hours. Requisite: course 193. Study of individual human rights issues as they exist in particular countries. 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. 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 170. Adjunct course limited to undergraduate students taking law colloquium. Intensive review and follow-up of scholarly papers presented in colloquium series. Reading of legal cases and supplemental material to provide legal framework for each scholarly paper presented in colloquium. Supervised by faculty member in charge of colloquium series. May be repeated for credit. P/NP grading.

199. Directed Research in Law. (1 to 6) 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.

LESBIAN, GAY, BISEXUAL, TRANSGENDER, AND QUEER STUDIES

Interdisciplinary Minor

College of Letters and Science

361 Humanities Building
Box 957233
Los Angeles, CA 90095-7233

Lesbian, Gay, Bisexual, Transgender, and Queer Studies
310-825-7650
E-mail contact
Alicia Gaspar de Alba, PhD, Chair

Faculty Committee

Anurima Banerji, PhD (World Arts and Cultures/Dance)
Mayel S. Blackwell, PhD (Chicano and Chicana Studies, Gender Studies)
Sue-Ellen Case, PhD (Theater)
Michelle F. Erai, PhD (Gender Studies)
Alicia Gaspar de Alba, PhD (Chicano and Chicana Studies, English, Gender Studies)
Joshua J. Guzman, PhD (Gender Studies)
Michael A. Hill, PhD (Mathematics)
Gil Z. Hochberg, PhD (Comparative Literature, Gender Studies)
Ian W. Holloway, MSW, MPH, PhD (Social Welfare)
Kerri L. Johnson, PhD (Communication, Psychology)
Peter D. Kazaras, JD (Music)
Rachel G. Lee, PhD, ex officio (English, Gender Studies)
Elizabeth A. Marchant, PhD, ex officio (Comparative Literature, Gender Studies)
Kathleen A. McHugh, 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 (German Languages)
Robert Bradley Sears, JD (Law)
Scope and Objectives

Although the initial focus in lesbian, gay, bisexual, trans-, gender, and queer studies is usually on minority sexualities and trans/sexuality, 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, trans-, gender, 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, trans-, gender, and queer studies is the site of some of the most exciting work being done today on the relationship between sexuality and culture.

The minor in Lesbian, Gay, Bisexual, Transgender, and Queer Studies offers students the opportunity to study sexuality from a variety of cultural and disciplinary perspectives meant to engage students in some of the most cutting-edge research in lesbian, gay, bisexual, trans-, gender, 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.


Students may petition to apply a non-listed course to the minor. If the course has significant overlap with the course 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.

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. Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of literary and cultural production through lens of gender and representation such as race and ethnicity. 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. Exploration of topics in greater depth through supplemental readings, papers, or other activities and 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 applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter 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 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. (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. Survey of discrete period of queer literature and culture from circa 1850 to 1970. 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.

M101C. Queer Literatures and Cultures after 1970. (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. 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. Writings and films by such authors as Andrew Holleran, Leslie Feinberg, Achy Obejas, Essex Hemphill, Audre Lorde, Cheryl Dume, and Alison Bechdel may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101D. Studies in Queer Literatures and Cultures. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M101D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Variable spe- cialized 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.

M107B. Studies in Gender and Sexuality. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M107B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of literary and cultural production through lens of gender and sexuality. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic and include other intersectional vectors of identity and representation such as race and ethnicity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M114. Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies. (5) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M114.) Lecture, three hours; discussion, one hour. Introduction to history, politics, culture, and social science of lesbian, gay, bisexual, transgender, and queer people; examination of categories as catego- ries 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, Bi- sexual, and Transgender Studies M115.) (Same as Gender Studies M115.) Lecture/discussion, three hours. Requisite: course M114 or Gender Studies 10. Studies in arts, humanities, social sciences, and/or life sciences on aspects of sexual orientation, gender identity, and lesbian, gay, and/or bisexual issues; vari- able topics may include cultural representations, his- torical and political contexts, life and health experi- ences, and queer or transgender theories; multiethnic and cross-cultural emphases. May be repeated for credit. Letter grading.


M118. Queering American History. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M118.) (Same as Gender Studies M118.) Lecture, four hours. Enforced requisite: one prior lesbian, gay, bisexual, trans, and queer studies course.
History of sexual and gender minorities in U.S. Topics include changing norms, romantic friendships, medical discourse, liberation politics, post-Stonewall culture, AIDS, transgender movement, queer theory, and politics. P/NP or letter grading.

M125. Exploring Intersection of Ability and Sexuality. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M125s.) 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, and how this affects identity. Use 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. Exploration of subject (s) of radical feminism, queer theory, and gender studies, with focus on their interrelated significance for making of culture. Readings to be interdisciplin ary, with possible emphasis on impact of changing ideas of gender and sexuality on specific historical culture. 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.) Lecture, three hours; discussion, one hour (when scheduled). Investigation through history, popular culture, and media (e.g. bilingual cultural identities) of border regions and spaces between Mexico and U.S. Special attention to border consciousness as site of conflict and resistance. Limited to students in College Honors Program. Determined by chair of National Endowment for Arts and who came to be known as NEA Four. P/NP or letter grading.

M133. Chicana Lesbian Literature. (4) (Formerly numbered Lesbian, Gay, Bisexual, and Transgender Studies M133.) Lecture, three hours; discussion, one hour (when scheduled). Investigation through history, popular culture, and literature of Chicana women's experiences. Representations of Chicana identity, representation of Chicana women's experiences, and impact of Chicana lesbian theory on Chicana Chicana and Chicana Chicana Studies. Lecture, discussions.
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 Psychobiology (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 organizational 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 and 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.
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. Genetics. (5) Lecture, three hours; discussion, 75 minutes. Enforced requisites: courses 2, 3, Chemistry 14A or 20A, 14C or 30A. Honors course parallel to course 3, but at a more advanced level. Letter grading.

5. Evolution, Ecology, and Biodiversity. (5) Lecture, three hours; discussion, one hour. Enforced corequisite: course 3; Introductory wet-laboratory design with teams of 10. Use of wet-laboratory/bioinformatics methods and tools applicable in variety of biological fields, molecular biology, genetics, 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.

6. Introduction to Molecular Biology. (Honors) (5) Lecture, two and one half hours; discussion, 90 minutes; movie section, two and one half hours. Enforced requisites: course 2, and Chemistry 14C or 30A. Honors corequisite course parallel to course 3 but at more advanced level. Letter grading.

7. Cell and Molecular Biology. (5) Lecture, three hours; discussion, 75 minutes. Introduction to basic principles of cell structure and cell biology, biochemistry, and molecular biology. P/NP or letter grading.


10. 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.

11. Quantitative Concepts for Life Sciences. (5) Lecture, three hours; discussion, two hours. Preparation: three years of high school mathematics (to algebra II), some basic familiarity with computers. Introduction to variety of quantitative concepts that are relevant to biology. Designed to enhance quantitative skills that are essential for success in 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.

12. Introduction to Laboratory and Scientific Methodology. 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. Conduct and report wet-laboratory cutting-edge bioinformatics laboratory experiments. Students work in groups of three conducting experiments in areas of physiology, metabolism, cell biology, genetics, genomics, and bioinformatics. Letter grading.

13. Mathematics for Life Scientists. (5) Lecture, three hours; laboratory, one hour. Preparation: three years of high school mathematics (to algebra II), some basic familiarity with computers. Mathematical modeling as tool for understanding dynamics of biological systems. Fundamental concepts of single-variable calculus and development of simple- and multivariable differential equation models of dynamical processes in ecology, physiology, and other subjects in which quantities change with time. Use of computer program Sage for problem solving, plotting, and dynamical simulation in laboratory. Letter grading.

14. 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.

15. 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 formula-based descriptive statistics. Allows 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.

16. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture courses in life sciences and intended to allow 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.

17. Health Disparities. (4) (Same as Psychology M174.) Lecture, three hours. Examination of health disparities and ways in which race and ethnicity in combination with variety of other factors create differential quality and access to healthcare resulting in poor health outcomes in racial/ethnic minorities. Basic foundation for critical thinking about assumptions that shape life sciences, medical research, clinical practice, and social and behavioral sciences as they relate to racial and ethnic minority populations and to teach students to integrate concepts of culture and health disparities into other social, biological, political, psychological, genetic, and clinical health interests. P/NP grading.

18. 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.

19. Advanced Honors Seminars. (1) Tutorial, three hours. Limited to students in College Honors Program. Design to enhance development of key skills necessary for upper-division research, clinical practice, and social and behavioral sciences. May be repeated for credit with instructor consent. P/NP or letter grading.

20. Variable Topics in Life Sciences. (1 to 4) Seminar, two to four hours. Current issues in research and/or development in life sciences. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with consent of instructor. P/NP or letter grading.

Upper-Division Courses


110. Career Exploration in Life Sciences. (2) Formerly numbered 5.) Seminar, two hours. Recommended for sophomore and incoming transfer students. Designed to help life sciences students expand awareness of their interests, needs, and skills to make deliberate career choices. Introduction to many components that go into making effective career decisions to help students explore diversity of career options for life sciences majors. P/NP grading.
Scope and Objectives

The goal of the Department of Linguistics is the enrichment of knowledge about the nature, grammar, and history of human language. Linguistics is a theoretical discipline, akin to philosophy, anthropology, and cognitive psychology. It is important for prospective students to understand that studying linguistics is not a matter of learning to speak many languages. Linguistics courses draw examples from the grammars of a wide variety of languages, and the more languages linguists know about in depth (as distinct from possessing fluency in the use of them), the more likely they are to discover universal properties. It is also possible to pursue these universal aspects of human language through the intensive in-depth study of a single language. This accounts for the high proportion of examples from English and familiar European languages found in linguistics courses and research publications.

The core areas of linguistic theory are phonology (with its roots in phonetics), morphology, syntax, and semantics. A grammar is a system of rules that characterize the phonology, morphology, syntax, and semantics of a natural language. The properties of grammars are the central focus of linguistic theory.

Because language is central to all humanistic disciplines, as well as to several social sciences areas, it is studied from many points of view. Linguistics itself cannot be said to recognize a single optimal approach to the subject. Hence, the courses provide a variety of approaches that reflect the diversity of the field.

The Linguistics Department has consistently been ranked among the very best linguistics departments in the country. It offers programs leading to the Bachelor of Arts, Master of Arts, and PhD degrees.

Undergraduate Study

The majors described below are of three types: (1) a major that concentrates entirely on general linguistics, (2) several majors that combine the basic courses of the general program with a language concentration or other related fields, and (3) a major in Applied Linguistics. The combined majors in conjunction with instructional certification programs are especially appropriate for students who have non-university teaching careers as goals.

A 2.0 grade-point average in linguistics courses is required for all Linguistics Department majors.

Linguistics BA

Linguistics is the study of languages as a general phenomenon. It aims to help answer broad questions concerning the nature of human cognition and communication. Students will learn about language universals as well as the ways in which languages differ from one another in terms of their sound patterns, syntax, and the way they encode meaning. They will also learn about the linguistic theories explaining and constraining linguistic knowledge, informed in part by experimental investigations of child language acquisition and adult lan-
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 130 (or 132), and two courses from 165A, 165B, 165C (students may substitute courses 200A, 200B, and 200C for 165A, 165B, and 165C respectively if they receive grades of A in 120A, 120B, and 120C respectively and have consent of instructor). Courses 165A, 165B, and 165C, or 200A, 200B, and 200C, are recommended for students planning linguistics graduate work. The remaining four courses are electives, three of which must be linguistics courses (no more than one course from 197, 198A, and 199 may be applied toward the major). The other course may be in linguistics or in another field as follows: Classics 180, English 113A, 113B, Philosophy C127A, C127B, 172, Psychology 120A, 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 199B, or 199, are recommended for students planning to pursue graduate work in linguistics, since they provide an opportunity to engage in independent research and to write a paper that can be submitted to graduate admissions committees. To enroll in the courses, students must consult with the department senior essay and honors counselor.

Applied Linguistics BA

The Applied Linguistics major investigates linguistic issues relevant to the everyday world, shedding light on the nature of language and language use. Students will learn linguistic theory, the study of the structure of human language generally. With its focus on service learning, students will also learn linguistic practice, engaging in the community, schools, and work places of our geographic setting. Successful graduates will be well acquainted with language use from a variety of perspectives and experiences, and will be able to apply this knowledge to a wide variety of practices including language teaching, speech pathology, and translation and interpretation.

Learning Outcomes

The Applied Linguistics major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Preparation for the Major

Required: Anthropology 4 or Psychology 10, Linguistics 11, 20, and completion of the equivalent of the sixth term of one foreign language.

Students who complete an advanced upper-division language course are considered to 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, Iraqi 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 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 structure 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: Anthropology 4 or Psychology 10, Linguistics 11, 20, and completion of the equivalent of the sixth term of one foreign language.

Students who complete an advanced upper-division language course are considered to 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, Iraqi 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 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.
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), M146; two courses from 114, 120C, 144, 160, 161, 170; one course from Anthropology 151 or Sociology M124A; and three upper-division electives from the Anthropology 130 series (one course only), the 150 series (one course only), the 160 series (one course only), Sociology M124A, CM125, Linguistics 165A and 165B (or 200A and 200B with grades of A in 120A and 120B respectively and consent of instructor) are recommended for students planning to pursue graduate work in linguistics.

Linguistics and Asian Languages and Cultures BA

The major combines the basic courses of the general linguistics program with that of East Asian languages and cultures. Students are able to study the civilizations of China, Korea, Japan, and India; and enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes

The Linguistics and Asian Languages and Cultures major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Preparation for the Major

Required: Completion of the sixth term in either Chinese, Japanese, or Korean; Linguistics 20; one cultural anthropology course; either Chinese 50, Japanese 50, or Korean 50, as appropriate; completion of the equivalent of the third term of a second foreign language.

Transfer Students

Transfer applicants to the Linguistics and Asian Languages and Cultures major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: 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


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 system 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

Linguistics and English BA

The major combines the basic courses of the general linguistics program with that of English. Students are able to study the literatures and cultures of those parts of the world in which English is the primary language, the history and structure of the English language itself, and enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes

The Linguistics and English major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Preparation for the Major

Required: Linguistics 20, English 4W (or 4HW), 10A, 10B, 10C, Philosophy 31, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language.

Transfer Students

Transfer applicants to the Linguistics and English major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one critical reading and writing course, one year of English literature survey courses, one symbolic logic course, and two years of one
foreign language and one year of a second foreign language.

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

The Major

Required: Twelve upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper-division elective in linguistics, English 113A, 113B, 120, and three electives from 140A, 140B, 150A, 150B, 151, the 150 series (one course only), the 160 series (one course only), the 170 series (one course only).

Linguistics and French BA

The major combines the basic courses of the general linguistics program with that of French. Students are able to gain practical competence and basic knowledge of French, and enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes

The Linguistics and French major has the following learning outcomes:

• Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield

• Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield

• Ability to write technical material in linguistics, including language description and theory-based analysis

• Ability to access scholarly literature on language structure and use it in research

Preparation for the Major

Required: Linguistics 20, Italian 1, 2, 3, 4, 5, 6, Latin 1, 2, 3, one cultural anthropology course.

Transfer Students

Transfer applicants to the Linguistics and Italian major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Italian, one year of Latin, one introduction to linguistics course, and one cultural anthropology course.

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

The Major

Required: Twelve upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), two upper-division electives in linguistics, Italian 102A, 180, and three upper-division electives in Italian.

Linguistics and Philosophy BA

The major combines the basic courses of the general linguistics program with that of philosophy, for students who are reflective about their beliefs or who wish to become so. Students enrich their knowledge about the nature, grammar, and history of human language, and are given the opportunity to ponder the foundations of almost any other subject to which they are exposed—whether history, religion, government, law, or science.

Learning Outcomes

The Linguistics and Philosophy major has the following learning outcomes:

• Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield

• Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield

• Ability to write technical material in linguistics, including language description and theory-based analysis

• Ability to access scholarly literature on language structure and use it in research

Preparation for the Major

Required: Linguistics 20, Philosophy 31, and completed coursework in Western philosophy, political philosophy, philosophy of mind, or skepticism and rationality. 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: 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.
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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 or 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
19. Fiat Lux Freshman Seminars, (1) Seminar, one hour. Discussion of and critical thinking about topics 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 20 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 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 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 what is understood as 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 deafness from 19th and 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 deaf identity, along with rights movement 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, 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 world's languages and 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 sociolinguistic issues. P/NP or letter grading.
6. Out of Mouth of Babes, (4) Lecture, six hours. How children acquire language, most complex of human cognitive achievements. Look at amazing linguistic abilities of infants and their first perception and production of speech sound. Question of how children learn words and rules for producing and understanding sentences. Language acquisition in special populations such as children acquiring sign language, bilingual children, and people acquiring language beyond critical period. Focus mainly on English, with consideration of other languages. Offered in summer only. P/NP or letter grading.

M7. Language and Identity, (4) (Same as Philosophy M24.) Lecture, four hours; discussion, one hour (when scheduled). How do we use language to project our own identity? How do we use it to perceive or shape identity of others? Introduction to speech act theory and various claims that speech act theory can account for systematic subordination of women; mapping of racial minorities; and, in some cases, incite- ment to violence through hate speech. Provides foundation for students of linguistics, anthropology, sociology, anthropology, and communication studies. P/NP or letter grading.

Language in Context, (4) Lecture, four hours; discussion, one hour (when scheduled). How is meaning of language influenced by context? Study of relation to pragmatics, speech acts, ordinary language philosophy, and linguistic relativity. Good foundation for students of linguistic theory, philosophy, sociology, anthropology, and communication studies. P/NP or letter grading.

9W. Linguistic Humor: Amusing and Abusing with Language, (5) Seminar, five hours. Requisite: English Composition 3. Study of how language influences humor, how language endangers, together with related sociopo- lities of several key language families. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M10. Structure of English Words, (5) (Same as English M40.) Lecture, four hours; discussion, one hour. Introduction to structure of English words of classical origin, including most common base forms and rules by which 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.

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 variety 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 makes introduction to various ways language works in real life and how this can be described and studied in systematic ways; designed to teach students to write effectively. Letter grading.

Fiat Lux Freshman Seminars, (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
88A–88B. Lower Division Seminars. (4–4) Seminar, three hours. Limited to freshmen/sophomores. Variable topics; consult Schedule of Classes. Consent of instructor required. Topics are 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 12 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 offered in specific term. May be repeated for credit. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other activity; 3 or more units), 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

102. Introduction to Applied Phonetics. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20 with grade of B– or better. Not open for credit to students with credit for course 103. Basics of articulation and acoustics of phonetic categories used in world’s languages, including English in comparison with other languages. Practice in speech-sound perception and transcription using International Phonetic Alphabet (IPA). Applications to language learning/teaching and other fields. P/NP or letter grading.

103. Introduction to General Phonetics. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20 with grade of B– or better. Not open for credit to students with credit for course 102. Phonetics of variety of languages and phonetic phenomena that occur in languages of world. Extensive practice in perception and production of such phenomena. P/NP or letter grading.

104. Experimental Phonetics. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 20. Enforced requisite: course 20 with grade of B– or better. Not open for credit to students with credit for course 102. Phonetics of variety of languages and phonetic phenomena that occur in languages of world. Extensive practice in perception and production of such phenomena. P/NP or letter grading.

105. Morphology. (8) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20. In linguistics, morphology is study of word structure. Morphological theory seeks to answer questions such as how should words and their components (morphemes, affixes, suffixes, vowel changes) be classified crosslinguistically? How do speakers store, produce, and process complex words (words with affixes, compounds)? How do speakers know how to pronounce the word forms even when they have not previously heard them and how do speakers know that particular words are well-formed or ill-formed? Is there principled distinction in traditional divisions between inflection and derivation? How can we best account for variation in forms that are same (e.g., root in keep/kept though vowels are different)? Can we form cross-linguistic generalizations about word structure? P/NP or letter grading.

106. Introduction to Historical Linguistics. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 102 or 103, 119A or 120A, 120B. Method 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.

107. Introduction to Historical Linguistics for Graduate Students. (2) Lecture, four hours. Limited to and designed for entering linguistics graduate students. May be repeated for credit. Focus on course 104. 2016. Method and theories appropriate to historical study of language, such as comparative method and method of internal reconstruction. Sound change, grammatical change, semantic change. S/U grading.

110. Intonation. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 20, 102 or 103, one course from 119A, 119B, 120A, or 120B. Recommended preparatory courses: course 104. 2016. Study 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 methods to transcribe intonational elements. Letter grading.

114. American Indigenous Linguistics. (5) Lecture, four hours; discussion, one hour (when scheduled). Strongly recommended preparation: course 20. Survey of genetic, areal, and typological classifications of American indigenous languages; writing systems for American indigenous languages; American indigenous languages in social and historical context. One or more languages may be investigated in detail. P/NP or letter grading.

116. Introduction to Japanese Linguistics. (4) (Same as Japanese M120.) Lecture, three hours; discussion, one hour (when scheduled). Enforced prerequisite: Japanese 3 or 8 or Placement test. Introduction to Japanese grammar and sociolinguistics through reading, discussion, and problem solving in phonology, syntax, semantics, and discourse pragmatics. Letter grading.

119A. Phonological Structures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 20, 102 or 103. Not open for credit to students with credit for course 120A. Sound patterns in world’s languages. Rules, rule ordering, features, syllable, and higher structure. Comparison of sound patterns of different languages. Tools of phonology as applicable to other fields. P/NP or letter grading.

119B. Syntactic Structures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20 with grade of B– or better. Not open for credit to students with credit for course 120B. Syntactic structures and syntactic patterns in world’s languages. Basic tools of syntactic analysis. Comparison of syntactic patterns of different languages. Tools of syntax as applicable to other fields. P/NP or letter grading.


120B. Syntax I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 20 with grade of B– or better. Course 120A is not requisite to 120B. Descriptive analysis of morphological and syntactic structures in natural languages; emphasis on insight into nature rather than linguistics 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 essential similarities and differences among languages in grammatical devices they use to signal the following kinds of concepts: relations between nouns and verbs (case and word order), negation, comparison, existence/localization/possession, causation, interrogation, reflexivization, relativization, attribution (adjectives), time (tense and aspect), and backgrounding (subordination). Data from a range of languages presented and analyzed. P/NP or letter grading.

C128A–C128B. Romance Syntax: French. (4–4) Lecture, four hours. Prerequisite: 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 peculiarities 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, 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 inferencing, speech error models, and sentence production. Evaluation of syntactic structure during production. P/NP or letter grading.

135. Neurolinguistics. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 119A or 120A, 119B or 120B. Examination of relationship between brain, language, and linguistic theory, with evidence presented from atypical language development and language disorders in the mature brain. Topics include methodologies to investigate normal and atypical hemispheric specialization for language and children and adults with acquired and/or congenital language disorders. Concurrently scheduled with course C235. P/NP or letter grading.

140. Bilingualism and Second Language Acquisition. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 119A or 120A, 119B or 120B. Introduction to method bi- and adult and child second language (L2) acquisition, with focus on understanding nature of L2 grammar and grammatical processes underlying L2 bilingual acquisition. Discussion of neurolinguistics and social aspects of bilingualism. Concurrently scheduled with course C244. P/NP or letter grading.

M141. Current Methods of Language Teaching. (5) (Same as English Composition M141.) Lecture, four hours; discussion, one hour. Enforced requisite: course 20. Survey of theory and practice in teaching second 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 and rational base for design, development, and evaluation of second language instruction programs. P/NP or letter grading.

144. Fundamentals of Translation and Interpreting. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20. Examination of semantic, lexical, structural, and topical 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.

5146. Language in Culture. (5) (Same as Anthropology 150D.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Requisite: course 20 or Anthropology 4. Study of language as aspect of culture; relation of habitual thought and behavior to language; and language and classification of experience. Holistic approach to study of language, with emphasis on relationship of linguistic anthropology to fields of biological, cultural, and social anthropology, as well as archaeology, P/NP or letter grading.

5150. Introduction to Indo-European Linguistics. (5) (Same as Linguistics 151E.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 1 or 20. Indo-European languages (ancient and modern), including their relationship to languages in general, the nature of Indo-European proto-language and proto-culture. One or more Indo-European languages may be investigated in detail. 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 known 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 117-118, 105 or 110A, 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 documents (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 or as soon as possible thereafter. Further study in phonological theory and analysis: sound patterns, 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 120B or as soon as possible thereafter. Recommended for students who plan to do graduate work in linguistics. Form of grammars, word formation, formal and substantive universals in syntax, relation between syntax and semantics. P/NP or letter grading.

165C. Semantics II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120C. Recommended for students who plan to do graduate work in linguistics. Further study in relevant logics, relations between sentences, lexical semantics, tense and aspect, adverbs, modality and intensionality, P/NP or letter grading.

170. Language and Society: Introduction to 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; discussion, one hour (when scheduled). Requisites: courses 110, 120A, 120B. Principles of linguistic change as exemplified through detailed study of English. P/NP or letter grading.


177. Structure of Korean. (4) (Same as Korean CM127 and Korean CM127.) 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 in natural language processing. Topics include recursion, relationship between probabilities and grammars, and parsing algorithms. P/NP or letter grading.

185B. Computational Linguistics II. (5) Lecture, four hours; 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.

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 applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

191A. Variable Topics Research Seminars: Linguistics. (4) Seminar, three hours; Requisite: course 1 or 20. Research seminar on selected topics. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

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.

192A-192B. Undergraduate Practicum in Linguistics. (2 or 4) Seminar, seven hours (course 192A) and six hours (course 192B). Limited to juniors/seniors. Training and supervised practicum for advanced undergraduates attempting comprehensive research. 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, to be arranged. 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.

198A. Honors Research in Linguistics I. (4) Tutorial, to be arranged. Preparation: 3.5 grade-point average on average of last 40 units or completion of course 200A (or 200B). Suitable for students with serious interest in honors thesis or comprehensive research project on linguistic topic selected by student under direct supervision of faculty member. Consultant professor in charge to enroll. May be repeated for credit. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Linguistics II. (2) Tutorial, to be arranged. Recommended: completion of course 198A. Limited to juniors/seniors. Completion of honors thesis or comprehensive research project begun in course 198A under direct supervision of faculty member. Consultant professor in charge to enroll. May be repeated for credit. Individual contract required. 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. Capping paper required. Consultant professor in charge to enroll. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Phonological Theory I. (4) Lecture, four hours. Preparation: graduate linguistics student or grade of A in course 120A or equivalent course in phonology. Courses 200A and 200A form two-course survey of current research in phonological theory. Interaction of phonology with morphology and syntax, syllable structure, stress, and letter grading.

200B. Syntactic Theory I. (4) Lecture, four hours. Preparation: graduate linguistics student or grade of A in course 120B or equivalent course in syntax. In-depth introduction to selected formal 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 formal 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.

201A. Phonological Theory II. (4) Lecture, four hours. Requisite: course 200A. Continuation of course 200A. Second course in two-course survey of
current research in phonological theory. Topics in-clude autosegmentalism (tone, tiers, segment struc-ture), feature theory, underspecification, prosodic morphology. S/U or letter grading.

201B. Syntactic Theory II. (4) Lecture, four hours. Requisite: course 200B. In-depth introduction to selected topics in syntactic theory, with topics selected from different areas: WH-movement and related rules, subcategorization and other constraints on movement; ECP and related conditions on distribu-tion of empty categories; restrictive pronoun con-structions; parametric variation in movement con-structions; LF WH-movement; filters; reconstruction; parasitic gaps; binding; control theory; null subject theory. S/U or letter grading.


203. Phonetic Theory. (4) Requisite: course 120A. Preliminaries to speech analysis. Functional anatomy of vocal organs; fundamental principles of acoustics and audiology; speech production and perception in speech; 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. Requisite: course 103. Use of laboratory equipment to investigate articulatory, acoustic, and perceptual properties of speech. Topics include ex-perimental 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, es-pecially as related to linguistic phonetics. Topics in-clude physiology of vocal tract and models of speech production and articulatory/auditory relations. Emphasis on use of laboratory methods such as ac-coustic transducer, electroglottograph, static and el-ektroglottograph, 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 in-clude categorical speech perception, psycholinguistics, cate-gorical speech perception, and cross-linguistic speech perception and word recognition. Emphasis on use of experimental methods such as lexical deci-sion, gating, priming, eye tracking, phoneme moni-toring, and word spotting. S/U or letter grading.


207. Pragmatic Theory. (2 to 4) Lecture, four hours. Requisites: courses 102C, 201C. Introduction to formal pragmatic theory. Topics include speech act theory, imperatives, and other illocutionary moods; at-issue/not-at-issue distinction and other projective content; Gricean implicature, conversational implic-a-ture, 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 com-putational ideas underlying kinds of grammars used in theoretical linguistics and psycholinguistics. Themes include role of recursion, relationship between struc-ture 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 par-ticular attention to the relationship between grammar and psychological plausibility. S/U or letter grading.

209C. Computational Semantics. (4) Lecture, four hours. Preparation: basic knowledge of semantics. Requisite: course 185A 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 the class, by a native speaker of the language. Term papers to be relatively full descriptive sketches of the language. May be re-peated 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 dif-ferent languages are investigated in different years, course 210B can only be taken as direct continuation of 210A in same year. When there are multiple sec-tions, continuation must be in same section. May be repeated for credit with topic change. S/U or letter grading.

211. Involuntary Speech. (4) Lecture, two hours; laboratory, two hours. Requisite: course 120A or 120B. Survey of involuntary theories of language development. Laboratory equipment used for recording and analyzing intonation, and students learn to tran-scribe involuntary elements. Letter grading.

212. Learnability Theory. (4) Lecture, four hours. Survey of some of most significant results on capabili-ties of learners, given precise and imprecise limits on their memory, time, and computational power, and precise assumptions about information provided by environment. S/U or letter grading.

213A. Grammar Development. (4) Requisites: courses 200A, 200B. Recommended: course 130 or 233. Survey of theoretical perspectives and contem-porary 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, course 213B. Survey of several current syntactic theories, compared with one another and with theory discussed in course 213B, from point of view of theories' relative descriptive and explanatory power. S/U or letter grading.

215. Syntactic Typology. (2 or 4) Lecture, four hours. Requisite: course 200B. Recent findings in world-wide universals; genetic classification of world's languages; cross-language properties of specific construction types, including relative clauses, passives, positive and negative coreference systems; age and system, deixis systems, and types of sentence comple-ments. S/U or letter grading.

216. Syntactic Theory III. (4) Lecture, four hours. Requisite: course 201B. Selected topics on syntactic typology of anaphor and quantifier from the fol-low ing areas: typology of binding categories (pro-nouns, anaphors, etc.); theory of locality conditions in binding theory; parametric variation in binding; quantifiers; embedding; quantifiers; and unan-i-mous binding; strong and weak crossover; superi-ority; scope interactions; complex quantifier struc-tures. S/U or letter grading.

217. Experimental Phonology. (4) Lecture, four hours. Requisite: course 200A. Survey of experi-mental work that bears on claims about speakers' knowledge of phonology, including theories of lex-ic, 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 fea-tures theory and formal syntax and logics. Prerequisite: formal language theory, variable binding operators. May be repeated for credit with consent of instructor. S/U or letter grading.

219. Phonological Theory III. (4) Lecture, four hours. Requisite: course 201A. Current research and issues in phonological theory. Topics include structure of phonological representations, relations between rep-representations in acoustic, phonological, and explana-tions for phonological theory. S/U or letter grading.

220. Linguistic Areas. (4) Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200A, 165B or 200B. Analysis and classification of languages spoken in a particular region (e.g., Africa, the 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, in-cluding plurals as formal object, events, situations, times, and degrees. Preparation: grade of B or better in courses C128A-C128B. S/U or letter grading.

223. Linguistic Structures. (4) Lecture, four hours. Requisites: courses 120A and/or 120B. Requisite: courses 165A or 200A, 165B or 200B. Prerequisites: course 120A. Phy-siological and grammatical structure of a selected lan-guage 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 requi-site: course 120B. Course C228A is enforced requi-site to C228B. Aspects of structure of French lan-guage, with emphasis on properties of construction not found in English. Concurrently scheduled with courses C128A-C128B. 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 lin-guistics (e.g., phonology, syntax) or with different his-torical periods. May be repeated for credit with topic change.

232. Language Processing. (5) Lecture, four hours; laboratory, one hour. Central issues in language com-prehension and production, with emphasis on how problems in linguistics inform processing models. Topics include word understanding (with emphasis on spoken language), parsing, anaphora and inferencing, 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 theory presented from atypical language development and language disorders in the mature brain. Topics include methodologies to investigate normal and atypical hemispheric specialization for language and children 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 machines, 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 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.

244. Bilingualism and Second Language Acquisition. (2 or 4) Lecture, four hours. Topics include identifying and defining bilingualism, selecting appropriate research design and measurements, designing student experiments, recording, analyzing, and interpreting data. S/U or letter grading.

251A. Topics in Phonetics and Phonology. (4) Seminar, four hours. Requisite: course 200A. Course 201A, 203A, 204A or 204B 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, three hours. Each course may be taken independently for credit. May not be applied toward MA or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

251C. Seminars: Phonology. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. May not be applied toward MA or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

251D. Seminars: Syntax and Semantics. (2 or 4 each) Seminar, three hours. May not be applied toward MA or Ph.D. degree requirements when taken for 2 units. 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.

253B. Topics in Language Variation. (2) Seminar, four hours. Requisite: course 110. Course 202 may be required. Specialized topics in language variation. Meets with course 253A. 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, 215, 216 or research required. Individual seminars on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. Meets with course 254B. May be repeated for credit. Letter grading.


260A-260B-260C. Seminars: Phonetics. (2 or 4 each) Seminar, four hours. Each course may be taken independently for credit. May not be applied to- ward MA or Ph.D. 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 Ph.D. 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. May not be applied toward MA or Ph.D. 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. Each course may be taken independently for credit. May not be applied toward MA or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

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 degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

266A-266B-266C. Linguistics Colloquium. (4) Preparation: completion of MA requirements. Varied linguistic topics, generally presented by new graduate students. P/NP or letter grading.

301. Cooperative Program. (2 to 8) Preparatory 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.

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 preparation of course curricula, development of teaching strategies and their effects, teaching evaluation, and other topics on college teaching. Students receive unit credit toward full-time equivalence but not toward and beyond any degree requirements.

496A. Directed Studies. (1 to 8) Preparation: completion of all undergraduate deficiency courses. Directed individual study or research. May be applied toward MA course requirements. May be repeated for credit. S/U grading.

496B. 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.

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.

598. Research for MA Thesis. (1 to 8) Research and preparation of MA thesis. May be applied toward MA course requirements. May be repeated for a maximum of 8 units. 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.

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.

422. Practicum: Phonetic Data Analysis. (2) Designed for graduate students. Workshop in examination of phonetic data, such as sound spectrograms, oscillographic records, and animation output. May not be applied toward MA or PhD degree requirements. S/U grading.

444. MA Thesis Preparation Seminar. (4) Seminar, two hours. Regular student presentations of MA thesis topics and progress, with discussion and criticism by other students and faculty. Presentations by faculty and guest speakers on topics relevant to professional development, such as abstract writing and conference presentations, preparing manuscripts for publication, curriculum vitae and personal websites, academic and 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 preparation of course curricula, development of teaching strategies and their effects, teaching evaluation, and other topics on college teaching. Students receive unit credit toward full-time equivalence but not toward and beyond any degree requirements.

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.

301. 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.

Lower-Division Courses


19. Fast Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics 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-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. Ind-ividual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re-quired. Honors content noted on transcript. Letter grading.

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


189. Honors Freshman Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-signed as adjunct to upper-division lecture course. Ind-ividual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re-quired. Honors content noted on transcript. Letter grading.

Management

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Sebastian Edwards, PhD (Henry Ford II Professor of International Management)
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Richard P. Remelt, DBA (Harry and Elsa Kunin Professor Emeritus of Business and Society)
Hans Schöllhammer, DBA
Eduardo S. Schwartz, PhD (California Professor Emeritus of Real Estate and Land Economics)
Carol A. Scott, PhD
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E. Burton Swanson, PhD
Walter N. Torous, PhD (Lee and Seymour Graff Endowed Professor Emeritus)
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Management / 501

Los Angeles, CA 90095-1481
**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.

### Graduation Degrees

The John E. Anderson Graduate School of Management offers Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Management, the Master of Science (MS) degree in Business Analytics, the Master of Business Administration (MBA) degree, and the Master of Financial Engineering (MFE) degree. The school also offers the Executive MBA Program (EMBA), Fully Employed MBA Program (FEMBA), and Global Executive MBA for Asia Pacific (dual degree program with the National University of Singapore Business School).

Ten concurrent degree programs (Management MBA/Computer Science MS, Management MBA/Dentistry DDS, Management MBA/Latin American Studies MA, Management MBA/Law JD, Management MBA/Library and Information Science MLIS, Management MBA/Medicine MD, Management MBA/Nursing MSN, Management MBA/Public Health MPH, Management MBA/Public Policy MPP, and Management MBA/Urban Planning MURP) are also offered.

### Management

#### Lower-Division Courses

1A-1B. Principles of Accounting. (4-4) Lecture, three hours; discussion, one hour. Not open to freshmen. P/NP or letter grading. 1A. Introduction to financial accounting principles, including preparation and analysis of financial transactions and financial statements. Valuation and recording of asset-related transactions, including 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. Requirements: 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.
99H. Honors Contracts. (1) Tutorial. Three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through independent research, reading, 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. Open to academically strong students, 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


109. International Business Law. (4) Lecture, three hours. Recommended requisite: course 108. Study of international business legal environment, including general overview of international laws and organizations, international law's impact on U.S. companies, and international dispute resolution. Emphasis on ethics, legal, contractual, economic, and political aspects, with emphasis on applications of international law to international transactions. P/NP or letter grading.


121. Ethical Leadership in Accounting. (4) Lecture, seven and one half hours. 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. Under what conditions is a decision ethical or unethical? How might one ensure ethical behavior? What is ethical leadership? How does ethical leadership differ from ethical behavior? P/NP or letter grading.

122. Management Accounting. (4) Lecture, five hours. Requisites: courses 1A and 1B. Cost accounting as a management tool. Use of cost information in production planning, pricing, budgeting; cost reports; direct and indirect costs; cost variances; and gross margin analysis. Letter grading.


127A. Tax Principles and Policy. (4) Lecture, three hours. Requisite: course 1B. Study of fundamental income, estate, gift, and other taxes; the corporation; and other entities in analyzing business, investment, employment, and personal decisions. Special emphasis on role of tax rules in economic analysis and decision making. P/NP or letter grading.

127B. Corporate and Partnership Taxation. (4) Lecture, three hours. Requisite: course 1B. Recommended: course 127A. Study of tax issues arising in formation, operation, and termination of corporations and partnerships. Special emphasis on closely held enterprises, including S corporations. P/NP or letter grading.

127C. International Taxation. (4) Lecture, three hours. Recommended prerequisite: 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 (exports) 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: courses 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 varied analytical techniques employed in decision making. P/NP or letter grading.


142A. Information Technology in Accounting. (4) Formerly numbered 142C, lecture, seven and one half hours. Not open to freshmen. Introduction to role and use of models and modeling in managerial decision making, with focus on important types of models, their formulation and application, and 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. Discussion of applications in area of accounting, finance, marketing, and operations, with emphasis on model formulation, interpretation of solutions, and understanding of mathematical concepts relevant to construction of the models. 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 course. Requisite: course 142A (or former 142). Not open to freshmen. Hands-on experience in accounting uses of Microsoft Excel. Topics include creating data boxes in financial accounting, using pivot tables 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 QuickBooks 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 needs, product development, business plan development, and technology commercialization. Basic tools and personal characteristics required for entre- preneurship. Terminology used by lawyers, accountants, and bankers. Opportunities for 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, benefits, and disadvantages and communication of concept to potential investors, em- ployees, and business partners. Discussion of tech- nology, 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 pre- 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. Present their business plans to a panel of angel and venture cap- ital investors. Letter grading.

162. Entrepreneurship and Technology Commer- cialization. (4) Lecture, three hours. Designed for ju- nior/senior students. Introduction to transformation of new knowledge and inventions into viable commercial products and services, with particular emphasis on technology being developed at major research univer- sities like Caltech. Analysis of agent 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.


164. Entrepreneurial Finance and Accounting. (4) Lecture, three hours. Designed for juniors/seniors. In- troduction 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 time. 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 design strategic implementa- tion plan that incorporates external analysis, organi- zational assessment, strategy development, and exe- cutable action plans and draws on expertise and ex- perience of faculty members and alumni as well as
209. Managing Complex Business Deals. (4 or 6) (Formerly numbered M1209.) Lecture, three hours. Preparation: familiarity with basic vocabulary and concepts, including basic principles of accounting and valuation. Advanced course in business organization, 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, 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, framing processes, 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. Survey of negotiation exercises to foster development of students' negotiation skills and experiences. Use of economic and game-theoretic concepts in the light of modern negotiation theories and real world examples. Emphasis on how businesses can facilitate both rational and irrational decision making.


217A. Decision Analysis. (4) Lecture, three hours. Requisite: course 402. Managerial decision making occurs in a world of uncertainty and risk. This course begins with the analysis of such decisions, with application of framework to such scenarios as product development, litigation, business of bankruptcy, and strategic planning. Emphasis on economic substance of transactions. S/U or letter grading.

220. Corporate Decision Making and Incentives. (4) Lecture, three hours. Requisite: course 402. Use of basic microeconomics to answer what information is needed to make managerial decisions, what incentives are needed to motivate managers, and how information should be internalized in the firm. Essential for careers in consulting, private equity, and general management. S/U or letter grading.

222. Corporate Decision Making and Incentives. (4) Lecture, three hours. Requisite: course 402. Use of basic microeconomics to answer what information is needed to make managerial decisions, what incentives are needed to motivate managers, and how information should be internalized in the firm. Essential for careers in consulting, private equity, and general management. S/U or letter grading.


224. Business Law for Managers and Entrepreneurs. (4) Lecture, three hours. Introductory course that uses practical approach to teach students to recognize, understand, and manage legal issues. Topics include contract law, litigation process and alternatives, intellectual property law, business formation, corporate law, employment law, collateralized lending, and bankruptcy reorganizations. How to deal with potential legal issues before they become serious problems. S/U or letter grading.

M225. Law and Management of Nonprofit Organizations. (4) (Same as Public Policy M229.) Lecture, three hours. Introduction to important legal, financial, and management issues confronting nonprofit organizations. Topics include how to start nonprofit tax-exempt organizations, qualifying and maintaining tax-exempt status under IRC Section 501(c)(3), corporate governance, public and legislative activity restrictions, and strategic planning, fundraising, nonprofit accounting, and employment law. S/U or letter grading.


228. Financial Reporting and Equity Valuation. (4) Lecture and cases, three hours. Requisites: courses 408, 430. Lectures, discussions, and presentations. Focus on valuation approaches. Consideration of complications posed by capital structure, recapitalizations, derivative securities, intercorporate investments, and equity financing. Emphasis on how real options affect the 10-d and relative valuation using market multiples. Theories of practice to value different projects, including IPO, mergers and acquisitions, divestitures, and private firms. Exploration of how real options affect corporate decisions and how they can be identified and valued. Letter grading.

231C. Corporate Valuation. (4) Lecture, three hours. Requisites: courses 408, 430. Lectures, discussions, and presentations. Focus on valuation approaches. Consideration of complications posed by capital structure, recapitalizations, derivative securities, intercorporate investments, and equity financing. Emphasis on how real options affect the 10-d and relative valuation using market multiples. Theories of practice to value different projects, including IPO, mergers and acquisitions, divestitures, and private firms. Exploration of how real options affect corporate decisions and how they can be identified and valued. Letter grading.

231D. Takeovers, Restructuring, and Corporate Governance. (4) Lecture, three hours. Requisites: courses 230 (or 430), 408. Process by which corporate boards of directors may change their structure of business and shift their strategy and financial policies. Use of multiples in valuation and pricing anomalies. S/U or letter grading.

sideration and selection of financing vehicles that may be appropriate to securing organizations’ money requirements. S/U or letter graded.

232A. Investment Management. (4) Lecture, three hours. Requisites: courses 230 (or 430), 408. Topics include application of portfolio theory to investment decision making, including methods of portfolio 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 behavioral finance: adaptive and irrational behavior found in U.S. equities markets. Presentation of some paradigms of stock price movements that are rooted in studies from psychology and explanation of trading activity in equity risk-return paradigm. Introduction to some psychological biases that researchers suspect are inherent to investors. Employment of some results from psychology literature to explain irrationalities encountered in finance literature. Presentation of extant 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 choose this career path, as well as decision-making by private equity partnership managers and investors. How transactions are structured and why investors and entrepreneurs choose certain contractual arrangements. Discussion of underlying freedom of choice in the 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. Content and structure of the course depend on instructor discretion. May be repeated for credit with instructor approval. S/U or letter grading.

240E. Managing Entrepreneurial Operations. (4) Lecture, three hours. Requisite: course 410. Designed for second-year MBA and Executive MBA students. Exploring first-hand operating issues involved in managing entrepreneurial enterprises. Integrative coursework, building on methodology, 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 environments in global operations, international operations, firms focused on global operations, global entrepreneurship, and International trading. How firms can successfully address business situations that define their leadership and ethical positions. Letter grading.


241A. Technology Management. (4) Lecture, three hours. Preparation: courses 410, 411. Management of high-technology firm, including acquisition, creation, and utilization of technology and knowledge assets. Research and product development, product and process technologies, technology management, technology markets, competition, and technology strategy. Case examples from sectors such as computing, telecommunications, 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 in 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.

2524. Intellectual Property for Technology Entrepreneurs and Managers. (2) Same as Electrical and Computer Engineering M203.) Lecture, seminar, two hours; outside study, four hours. Introduction to intellectual property (IP) in context of technology products and markets. Topics include background 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, trademarks, 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.

252B. Personal Finance. (4) Lecture, three hours. Enforced requisite: course 409. Designed for individuals interested in improving their ability to persevere and influence others. Consideration of number of financial and non-financial influences on behavior 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 Executive MBA 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 develop better understanding not only of what they 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. Designed for prospective users of research results rather than for specialists in research. Marketing research is aid to management decision making. Development of problem-analysis skills, providing knowledge of concepts and methods of marketing research, with emphasis on limitations to marketing data. 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 prediction and predictive models, advanced treatment of regression, visualization and graphics, automatic analysis for high dimensional data. Use of industry-leading R/Studco statistical environment. S/U or letter grading.

265. Brand Management. (4) Lecture, three hours. Requisite: course 411. Introduction to considerations in brand 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.

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266A. New Product Development. (4) Lecture, three hours. Requisite: course 411. Examination of new product development (NPD) process with objective of learning key tools and methods and applying them to case studies, exercises, and course project. Products viewed through three lenses: quantifiable rational attributes, appeal due to emotional characteristics, and cost/technology/competitive tradeoffs. NPD process also investigated through five key phases: ideation, concept evaluation, detail design, prototyping and testing, and ramp-up and product launch. Coverage of mass customization, parallel prototyping, cost reduction, and creativity. 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 concept. Frameworks and analytical tools for interacting with customers and understanding their preferences as they evolve through four stages of customer life cycle: (1) customer awareness, initial post-purchase, (2) 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 in Medical Technology. (4) Same as Bioengineering M233A. Lecture, three hours; outside study, nine hours. Designed for graduate and professional students in engineering, dentistry, design, law, management, and medicine. Focus on understanding how to identify unmet clinical needs, properly filtering through these needs using various acceptance criteria, and selecting promising needs for which potential medtech innovators should explore. 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 or professional students by proposing 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 or professional students. Examination in 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 M277A. 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 financing techniques, assignments of rents, receiverships, prepayment, foreclosure, priorities, California antidiscrimination 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. Requisites: courses 277A and 277B. Concentrated study of law governing financing of land transactions from both national and California perspectives. Topics include California deed of trust, installment land contracts, assignments of rents, receiverships, prepayment, foreclosure, priorities, California antidiscrimination 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 402, 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 investments and real estate finance 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 279A 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 family, 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.


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, 414A. Optimization of team performance by gaining insights into 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. Interpersonal 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 situations, but also to analyze contexts for most effective application of these skills in a variety of settings. 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 corporate decision making, corporate (inter)integration, deal structure (including accounting and tax issues), and economic analysis of transactions. Examination of technology and digital media markets. Letter grading.

M292B. Growth, Science, and Technology. (4) Same as Public Policy M280B.) Lecture, three hours. Economic growth and change. Role of advances in science and technology, and actions of maximizing innovators and factors impinging on their behavior. How technological breakthroughs (or discontinuities) can form new industries or transform nature of and participation of firms in existing industries. S/U or letter grading.

M293A. Political Environment of American Business. (4) Same as Public Policy M281.) Lecture, three hours. Examination of various critics made by business of American political system. Designed to provide clearer understanding of principal features of American politics, especially as they influence business enterprise. S/U or letter grading.

293C. 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 bringing together outside speakers with scholars and students from UCLA Law School and academic de-
partments. Topics include contracts, torts, intellectual property, and business law. Students write graded re-

295A. Entrepreneurship and Venture Initiation. (4) Exploration in entrepreneurship particularly con-
cerned with formation and operation of new business ventures. Significant and crucial aspects of exploring new business opportunities and starting a business.

295B. Small Business Management. (4) Exploration of organizational aspects in managing small business enter-
tprises. Emphasis on identification and analysis of characteristic operating problems of small firms and application of appropriate methods or techniques for their solution.

295C. Corporate Entrepreneurship. (4) Inquiry into nature of entrepreneurship and effective implementa-
tion of entrepreneurial strategies in large industrial enter-
tprises. Emphasis primarily on managerial effects aimed at development and exploitation of technical and organizational innovations, manage-
ment of new product or process developments, and effective new venture management in a corporate context.

295D. Business Plan Development. (4) Lecture, three hours. Enforced requisite: course 295A. Funda-
mentals of developing effective written business plans. Basic principles of developing plans for sales, marketing, production or service, operations, financial, and management and staffing functions of new startup businesses. S/U or letter grading.

296A. International Business Management. (4) Discus-
sion, three hours. Identification, analysis, and res-
olution of managerial issues of policy and action within context of a multinational corporation, with em-
phasis on problems of adaptation to different socio-
logical, cultural, legal, political, and economic envi-
ronmental characteristics on planning, structuring of organizational relationships, and coordination and control in multinational firms. S/U or letter grading.

297B. International Business Strategy. (4) Discus-
sion, 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 business relationships; overseas business relationships and organizations; antitrust, taxation, transfer of capital, and technology regulations; patent, trademark, and copyright safeguards; arbitration of international business disputes; expatriation of foreign investments; international business and govern-
ment relations.

297D. International Business Negotiations. (4) Requisite: course 296A. Exploration of international busi-
ness negotiations of multinational enterprises with governmental agencies and foreign-based firms on a wide range of issues, such as establishment/dis-
solution of joint ventures, extent of foreign ownership/management control, terms/conditions for technology transfer, investment incentives.

297E. Business and Economics in Emerging Mar-
kets. (4) Lecture, three hours. Requisite: course 295A or 405. Analysis of changing economic, political, de-
mographic, and sociocultural conditions in devel-
oping countries as they affect the business environ-
ment. Process of economic growth, market-oriented reforms with creation of domestic capital markets, in-
flation 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.

298E. Special Topics in Management. (2) Lecture, 90–120 hours. Limited to graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. Letter grading.

298F. Special Topics in Management. (1) Lecture, one hour. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

298G. 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.

298H. 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.

298I. Special Topics in Management. (1) Lecture, one hour. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) 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-
ponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Mathematics for Management. (4) Lecture, three hours. Requisites: courses 295A, 296A. General mathematics review for MBA students. Fundamental mathematics, including topics from algebra, differen-
tial calculus in single and multiple variables, loga-
ithmic and exponential functions, probability, and statistics; applications, including economic theory, fi-
nance, 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 (expec-
tation, variance, covariance, normal random vari-
bibles), decision analysis, 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 fund-
amental financial accounting methods and proc-
rudures, with emphasis on financial statements. Pro-

405. Managerial Economics. (4) Lecture, three hours. Designed for graduate students. Analysis of consumer, producer, and market behavior. Market structure, pricing, and resource allocation. Applica-
tions to managerial strategy and public policy, with emphasis on competition, market power, and exter-
nalities. Letter grading.

406. Global Macroeconomy. (4) Lecture, three hours. Requisites: courses 402, 403, 405. Provides anal-
alytical framework for understanding way changing macroeconomic conditions in world economy affect economic growth, inflation, interest rates behavior, exchange rate determination, global compen-
sation and employment, and trade account. Provides skills to enable students to assess critically how developments in world economy affect particular industry environments. Letter grading.

407. Business Analytics with Spreadsheets. (4) Lecture, three hours. Requisite: course 402. Intro-
troduction to use of analytical methods for making strat-
egic, tactical, and operational decisions arising from accounting, finance, marketing, and production, with focus on three key areas in problem solving: formal problem definition, spreadsheet model formulation, alternatives evaluation. Letter grading.

408. Foundations of Finance. (4) Lecture, three hours. Introduction to managerial finance. Topics in-
clude time value of money, discounting and present value analysis, valuation of securities, capital budgeting, and construction of optimal portfolios, capital budgeting, and weighted average cost of capital. Letter grading.

tionships among individuals, groups, and organiza-
tional units as they influence managerial process and development of prospective general managers. Letter grading.

410. Operations Technology Management. (4) Lecture, three hours. Principles of market-driven managerial deci-

413A. Managerial Computing. (4) Lecture, three hours. Individual computing support of strategic analy-
sis, decision making, and management communica-
tion. Use of personal productivity tools, such as Excel and VBA, and network resources for data ac-

414A. Leadership Foundations. (2) Three-day resi-
dential format. Managing and working with people, with emphasis on motivation and development of in-
dividuals, leadership and interpersonal relationships, and group dynamics in complex organizational set-
tings. S/U grading.

420. Business Strategy. (4) Lecture, three hours. Evaluation and formulation of organization’s overall policies and strategies. Economic, heuristic, and so-
cial factors in approach to industry climate, environ-
mental analysis, and organizational appraisal. Se-
ior management’s role in managing policy process. Letter grading.

421A. Communication Development for Leaders. (2) Formerly numbered 421.) Lecture, three hours. Course 421A is requisite to 421B. Focus on commu-
nication basics and tailored to students’ needs—en-
trepreneurship, interpersonal communications, or public speaking. Students learn skills required to be-
come successful presenter; how to present differing types of materials, apply communication theory and strategy to organize information, present persuasive con-
tent, and effectively deliver presentations to varied audiences; how to apply visual and verbal messaging research and theory while analyzing audiences, orga-
nize and target messages for maximum persuasive impact, and communicate these messages in persuas-
ive 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 im-
pressing interviewers and investors. Course materials are grounded in empirical research. Skills and tech-
niques learned are broadly generalizable. Experiential exercises to enhance students’ abilities in oral and written communication. Emphasis on interpersonal commu-
nication skills from Communication Develop-
ment for Leaders (course 421A). S/U or letter grading.

427-428. Global Access Program. (3) Course 427A is enforced prerequisite to course 428. 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 relationships, identification of problems or strategic questions, design of study, collection and analysis of data, and development of report. In Progress (427A) and letter (427B) grading.

444B-444C. Applied Management Research: Two-Quarter Plan. (4) Fieldwork, four hours. Limited to full-time MBA program students. Must be taken after completion of first year in program. Projects include: (1) faculty-guided consulting project with private companies, nonprofit organizations, or government agencies; establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of secondary and primary research data, development of comprehensive business plan, and formal presentation of findings and recommendations. In Progress (444B) and letter (444C) grading.

445A-445B. Global Immersion: Two-Quarter Plan. (2–2) For course 445A: lecture, three hours; presentations, site visits, and discussion, 20 hours; for course 445B: fieldwork, three hours; presentations, site visits, and discussion, 20 hours. Exposures. University with its equivalent for part-time students. Supervised study of an organization, including establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of data, and development of presentation or consulting report correlating with practice assignment. In Progress (credit to be given only on completion of course 445A) and letter (445B) grading.

445I. International Studies. (4) Seminar, two hours; activity, one hour. Four-term course. Review of literature to identify investment strategy and transfer learning. Focus on sound theoretical tools and strategies. Emphasis on the international environment. Exposure to business practices and operations in destination country through site visits, study of economic and political environment by comparing and contrasting it with U.S., and important historical and cultural aspects of destination country. May be repeated once for credit. Letter grading.

445E. International Exchange: Executive MBA Program. (2-4) Lecture, 15 hours; discussion and assignments, up to 30 hours (240 hours for second-year students). Preparation for second-year core courses. Taught in English. Open to EMBA and FEMBA students. Intensive one-week study at international university. Courses taught by faculty members of peer partner institutions in destination country. Topics vary but are tailored to MBA curriculum. S/U or letter grading.

446A-459B. Managing Finance and Financing Emerging Enterprises. (2-2) Lecture, three hours. Course 446A is enforced prerequisite to 459B. Designed for second-year graduate students. Emphasis on financial control, and investment issues confronting rapidly growing companies in entrepreneurial settings. Consideration of selection of financing vehicles that may be appropriate to securing money requirements of organizations. In Progress (446A) and letter (459B) grading.

446B. 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 coursework. S/U or letter grading.

447A. International 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 theories 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 447A, 447B, and 457D). Letter grading.

447B. Fieldwork in Investment Management. (2) Seminar, two hours; fieldwork, one hour. Four-term course. Faculty-guided portfolio management implementation. Back testing of investment strategy. Visits to investment management firm and portfolio management. In Progress grading (credit to be given only on completion of courses 447C and 457D). Letter grading.


447D. Fieldwork in Investment Management. (2) Seminar, two hours; activity, one hour. Four-term course. Identification of portfolio management opportunities. In Progress grading (credit to be given only on completion of courses 447C and 457D). Letter grading.

448A-458B. Global Immersion: Two-Quarter Plan. (2–2) For course 448A: lecture, three hours; presentations, site visits, and discussion, 20 hours; for course 458B: fieldwork, three hours; presentations, site visits, and discussion, 20 hours. Exposures. University with its equivalent for part-time students. Supervised study of an organization, including establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of data, and development of report. In Progress (credit to be given only on completion of courses 448A and 444C). Letter grading.

448A-481B. Negotiations Behavior. (2-2) Lecture, three hours. Course 448A is enforced prerequisite to 481B. Limited to Global Executive MBA students. Presentation of theoretical principles and concepts
from psychology, sociology, and economics through lectures and readings, with focus primarily on improving practical negotiating skills through experiential learning (i.e., negotiations simulations). Participants learn to enhance their individual abilities in dyadic and group situations and to analyze contexts for decision making under uncertainty. (4)

402. Data Analysis and Management Decisions under Uncertainty. (2–2)
Limited to Executive MBA program students. Modern financial management deals with decision making under uncertainty and 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. (Formerly numbered Management 474.) Lecture, six hours. 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. Taught by school faculty members in conjunction with lectures by faculty members from top institutional partners, as well as local and regional government officials and ministers, local business executives, and influential leaders from country of focus. Letter grading. (Formerly numbered Management 470D.) Seminar, six hours. Limited to Executive MBA program students. Focuses on doing business globally. Includes on-campus sessions and intensive week of study in another country with lectures, guest speakers, panel discussions, and company site visits. Exposure to economic, legal and political environments, major industries and businesses, local culture, key historical events, and many aspects of conducting business internationally. Taught by school faculty members in conjunction with lectures by faculty members from top institutional partners, as well as local and regional government officials and ministers, local business executives, and influential leaders from country of focus. Letter grading.

422. Leadership in Practice. (4) Lecture, six hours. Limited to Executive MBA program students. Addresses practical decision-making challenges leaders face when confronting decisions alone and in groups. Students learn to recognize when to delegate authority to others and in others and gain skills to re-calibrate group dynamics in order to achieve better results. These skills are taught experientially through participatory simulations and post-hoc analyses. Letter grading.

439. Selected Topics in Management. (4) Seminar, three hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

440. Selected Topics in Management. (2) Seminar, three hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

441. Selected Topics in Management. (1) Seminar, two hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

442. Selected Topics in Management. (2) Seminar, three hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

501. Cooperative Program. (2 to 8) Preparation; consultant, UCB Adviser, assistant dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

506. Research in Management. (1 to 8) Directed individual study or research. May be repeated. S/U or letter grading.

597. Preparation for Qualifying Examinations. (4 or 12) Preparation for master's comprehensive examination or PhD qualifying examinations. S/U grading.


Management–Executive MBA

Graduate Courses

402. Data Analysis and Management Decisions under Uncertainty. (2–2) 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.


405. Economic Analysis for Managers. (4) Limited to Executive MBA program students. Modern financial management deals with decision making under uncertainty and 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.

406. Financial Policy for Managers. (4) Limited to Executive MBA program students. Modern financial management deals with decision making under uncertainty and 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.


408. Organizational Behavior. (4) Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

409. Organizational Behavior. (4) Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U or letter grading.


412. Leadership Foundations I. (2) 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.

413. Leadership Foundations II. (1) Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

414. Leadership Foundations III. (1) 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.

403. Financial Accounting. (4) (Formerly numbered Management 464.) Lecture, four hours. Limited to UCLA-NUS Executive MBA program students. Survey of the financial statements used by lawyers, accountants, venture capitalists, and other investors when forming and financing new companies. Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. In Progress (407A) and letter (407B) grading.

404. Negotiations Behavior. (4) (Formerly numbered Management 482.) Lecture, three hours. Presented to allow students to employ and enhance concepts learned in classroom. In Progress (445A) and letter (445B) grading.

405. Theories of Business Strategy. (4) (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).

406. Strategic Leadership and Implementation. (4) (Formerly numbered Management 486.) Lecture, three hours. Designed to address several fundamental aspects of leading complex organizations, with emphasis on important tasks of developing well-aligned, high-performing organizations that can handle the challenges of leading change in organizations. Enables students to develop organized point of view on strategic leadership and to increase their awareness of themselves as leaders. Letter grading.

407A-407B. Entrepreneurship and Venture Initiation I, II. (2–2) (Formerly numbered Management 487A-487B.) Lecture, 90 minutes. Course 407A is requisite to 407B. Limited to UCLA-NUS Executive MBA program students. Introduction to basic tools and jargon required for entrepreneurship that requires financing or management of intellectual property. Terminology used by lawyers, accountants, venture capitalists, and other investors when forming and financing new companies. Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. In Progress (407A) and letter (407B) grading.

410. Logistics and Operations Management. (4) (Formerly numbered Management 474A.) Lecture, three hours. Limited to UCLA-NUS 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. 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 incorporation of technological consideration into strategy, adoption of technological innovation, promoting innovation through organizational design and leadership, e-business, and m-business. Letter grading.

414. Strategic Management Research. (4) (Formerly numbered Management 470C.) Fieldwork, four hours. Limited to Executive MBA program students. Further research 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.

440. Selected Topics in Management. (2) Seminar, three hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

441. Selected Topics in Management. (1) Seminar, two hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

442. Selected Topics in Management. (4) Seminar, six hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

443. Selected Topics in Management. (2) Seminar, three hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

444. Selected Topics in Management. (2) Seminar, two hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

445A-445B. Management Practicum. (2–2) (Formerly numbered Management 471A-471B.) Lecture, three hours. Two-term individual or group (three to five students) project on global strategic issues designed to allow students to employ and enhance concepts learned in classroom. In Progress (445A) and letter (445B) grading.


402. Econometrics. (4) (Formerly numbered Management 237D.) Lecture, six hours. Designed to address several fundamental aspects of leading complex organizations, with emphasis on important tasks of developing well-aligned, high-performing organizations that can handle the challenges of leading change in organizations. Enables students to develop organized point of view on strategic leadership and to increase their awareness of themselves as leaders. Letter grading.

403. Stochastic Calculus. (4) (Formerly numbered Management 237E.) 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 237F.) 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. 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.

406. Derivative Markets. (4) (Formerly numbered Management 237H.) 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.

volatility, correlations, stability, regressions, and statistical inference using financial time series. S/U or letter grading.


410. Applied Finance Project. (4) (Formerly numbered Management 237NL.) 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 of 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 use of databases using SQL (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 normalization and designing for relational database management systems (RDBMS). 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. Advanced Data Science and Analytics. (4) Lecture, three hours. Limited to Master of Science in Business Analytics students. Introduction to advanced data science and analytics by examining competitive conditions in industry or market. S/U or letter grading.


410. 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.


436. Fraud Analytics. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. How to build analytics side of fraud detection model systems. Covers all algorithmic aspects of solving fraud problem, in particular how to approach and develop methodologies that focus on algorithmic development. Does not address software engineering aspects of building and fielding fraud solution. Topics covered a background for building real-time fraud detection systems, specific accounting principles, S/U or letter grading.

Management–PhD

Graduate Courses

200. Economics of Decision. (4) (Formerly numbered Management 203A.) Discussion, three hours. Preparation: basic probability theory. Basics of single-period decision theory and non-cooperative 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 204B.) Lecture, three hours. Recommended requisite: course 201A. Designed for PhD students. Introduction to general regression analysis. Linear model, maximum likelihood estimation, and asymptotic properties. Elementary hypothesis testing and approach for analyzing and interpreting practical problems, including estimation of econometric regression models. Linear models for analyzing categorical variables, differences-in-differences, regression discontinuity design, propensity score matching, limited dependent variable models, introduction to instrumental variables. S/U grading.


202A-202B-202C. Accounting Workshops. (1–1–2) (Formerly numbered Management 229X-229Y-229Z.) Lecture, two hours. Designed for PhD students. Intended to develop ability to critically evaluate research and provide feedback to study of accounting. Papers presented in colloquium format by leading scholars in accounting. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U grading.

203A-203B. Research Topics in Finance. (2–2) (Formerly numbered Management 236A-236B.) Seminar, three hours. Course 236A is requisite to 236B. 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 course taught through discussion of papers in sessions prior to workshop, as well as 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) (Formerly numbered Management 256X-258Y-258Z.) Seminar, two hours. Designed for PhD students. Development of ability to critically evaluate research in fields relevant to study of problems or issues of current concern in management and organizational behavior. Papers presented in colloquium format by leading scholars in organizational behavior. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U or letter grading.

207A-207B-207C. Workshops: Marketing. (1–1–2) (Formerly numbered Management 259X-259Y-259Z.) Lecture, three hours. Designed for PhD students. Required of all students during first two years of their PhD work. Series consists of number of leading scholars who will lead and interact with students who make presentations to marketing faculty and PhD students. Active participation and intellectual interchange that helps students gain richer perspective on field of marketing. In Progress (207A, 207B) and S/U or letter (207C) grading.

208A-208B-208C. Global Economics and Management Workshops. (1–1–2) (Formerly numbered Management 280X-280Y-280Z.) Seminar, two hours. Designed for PhD students. Development of ability to critically evaluate research in fields relevant to study of economics. Papers presented in colloquium format by leading scholars in economics. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U grading.

209A-209B-209C. Management Strategy and Policy Workshops. (1–1–2) (Formerly numbered Management 290X-290Y-290Z.) Lecture, three hours. Designed 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 discussion of papers during colloquium. May be repeated for credit. S/U grading.

210C. 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 programming models and their applications, (2) establish connections between these technical foundations and real problems drawn from many areas of management, and (3) build professional skills needed to apply these tools. S/U or letter grading.

211. Behavior under Uncertainty. (4) (Formerly numbered Management 211C.) Lecture, three hours. Preparation: doctoral standing or consent of instructor. Introduction to empirical accounting literature, focusing on role that accounting information plays in formation of capital market prices. S/U or letter grading.

236. Theoretical Models in Accounting. (4) (Formerly numbered Management 236.) Lecture, three hours. Major theoretical paradigms characterizing analytic modeling in accounting. Emphasis on financial accounting applications. Discussion focuses on economic intuition as reflected by key tensions and related insights. Possible examination of mathematical expressions that encapsulate what can be learned from models. Letter grading.


238. Macroeconomics and Finance. (4) (Formerly numbered Management 238B.) Lecture, three hours. Introduction to research frontier of dynamic and quantitative modeling and estimation in macrofinance. Exploration of policy via dynamic and capital market segmentation, and intermediated based asset pricing. S/U or letter grading.


241A. Models for Operations Planning, Scheduling, and Control. (4) (Formerly numbered Management 241A.) Lecture, three hours. Preparation: linear programming. Survey course to (1) lay foundations for more advanced study of graphs, network flow models, and integer programming models and their applications, (2) establish connections between these technical foundations and real problems drawn from many areas of management, and (3) build professional skills needed to apply these tools. S/U or letter grading.

254. Individuals and Groups in Organizations. (4) (Formerly numbered Management 254.) Lecture, three hours. Preparation: doctoral standing or consent of instructor. 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.

252. Special Topics in Management Theory. (4) (Formerly numbered Management 252.) Lecture, three hours. Designed for PhD students. Special topics in the management and related fields. Students are assumed to have good background in marketing principles and to be familiar with probability, statistics, mathematical programming, and econometrics. Review of a range of quantitative models as applied in marketing research. S/U or letter grading.

251. Research and Development Policy. (4) (Formerly numbered Management 251.) 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.

253. Special Topics in Management Theory. (4) (Formerly numbered Management 253.) Lecture, three hours. Preparation: doctoral standing or consent of instructor. 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.

244. Advanced Studies in Human Resource Management. (4) (Formerly numbered Management 244B.) Lecture, three hours. Study of human resource management issues associated with developing and maintaining a high performance work environment. Topics may include employee selection, motivation, retention, conflict management, and diversity. S/U or letter grading.

245. Markets and Organizations. (4) (Formerly numbered Management 245B.) Seminar, three hours. Designed for graduate students. Doctoral-level survey of major topics in organizational behavior, with focus on market-level organizational topics related to study of organizational systems and organizational environments. Topics may include demographics, organizational change, organizational structure, and networks. Letter grading.

246. Theory in Marketing. (4) (Formerly numbered Management 246B.) Lecture, three hours. Preparation: doctoral standing or consent of instructor. 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.
Materials Science and Engineering

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Scope and Objectives

At the heart of materials science and engineering is the understanding and control of the microstructure of solids. Microstructure is used broadly in reference to electronic and atomic structure of solids—and defects within them—at size scales ranging from atomic bond lengths to airplane wings. The structure of solids over this wide range dictates their structural, electrical, biological, and chemical properties. The phenomenological and mechanistic relationships between microstructure and the macroscopic properties of solids are, in essence, what materials science is all about.

Materials engineering builds on the foundation of materials science and is concerned with the design, fabrication, and optimal selection of engineering materials that must simultaneously fulfill dimensional, property, quality control, and economic requirements.

The undergraduate program in the Department of Materials Science and Engineering leads to the BS degree in Materials Engineering. Students are introduced to the basic principles of metallurgy and ceramic and polymer science as part of the Materials Engineering major. A joint major field, Chemistry/Materials Science, is offered to students enrolled in the Department of Chemistry and Biochemistry (College of Letters and Science).

The department also has a program in electronic materials that provides a broad-based background in materials science, with opportunity to specialize in the study of those materials used for electronic and optoelectronic applications. The program incorporates several courses in electrical engineering in addition to those in the Materials Science curriculum.

The graduate program allows for specialization in one of the following fields: ceramics and ceramic processing, electronic and optical materials, and structural materials.

Undergraduate Study

The materials engineering program is accredited by the Engineering Accreditation Commission of ABET.

The Materials Engineering major is a designated capstone major. Students undertake two individual projects involving materials selection, treatment, and serviceability. Successful completion requires working knowledge of physical properties of materials and strategies and methodologies of using materials properties in the materials selection process. Students learn and work independently and practice leadership and teamwork in and across disciplines. They are also expected to communicate effectively in oral, graphic, and written forms.

Materials Engineering BS Capstone Major

The materials engineering program is designed for students who wish to pursue a professional career in the materials field and desire a broad understanding of the relationship between microstructure and properties of materials. Metals, ceramics, and polymers, as well as the design, fabrication, and testing of metallic and other materials such as oxides, glasses, and fiber-reinforced composites, are included in the course contents.

Learning Outcomes

The Materials Engineering major has the following learning outcomes:

• Application of knowledge of mathematics, natural science, and engineering to analysis of materials and other systems
• Learn and work independently
• Practice leadership and teamwork in and across disciplines
• Design of a system, component, or process to meet desired needs
• Effective oral, graphic, and written communication
• Identification, formulation, and solution of engineering problems

Materials Engineering Option

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering M20 or Computer Science 31 or Mechanical and Aerospace Engineering M20; Materials Science and Engineering 10, 90L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B (or Mechanical and Aerospace Engineering 82); Physics 1A, 1B, 1C.

The Major

Required: Civil and Environmental Engineering 91 (or Mechanical and Aerospace Engineering 101), 108, Electrical and Computer Engineering 100, Materials Science and Engineering 104, 110, 110L, 120, 130, 131, 131L, 132, 143A, 150, 160; one upper-division mathematics course selected from Civil and Environmental Engineering 103, Electrical and Computer Engineering 102, Mathematics 132, Mechanical and Aerospace Engineering 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 Academic and Student Affairs; one capstone design course (Materials Science and Engineering 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 Engineering 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, Electrical and Computer Engineering 131A, Materi-
materials Science and Engineering 170, 171, Mathe-

matics 170A, or Statistics 100A.

For information on UC, school, and general ed-

ucation 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 Engi-

neering 104, 110, 110L, 120 (or Electrical

and Computer Engineering 2), 121, 121L, 122, 130,

131, 131L, 132, Mechanical and Aerospace

Engineering 101; one upper-division mathe-
matics course selected from Civil and Environ-

mental Engineering 103, Electrical and Com-

puter Engineering 102, Mathematics 132, Me-

chanical and Aerospace Engineering 182B,

182C; either Materials Science and Engineer-

ing 150 or 160 and one course (4 units from

Electrical and Computer Engineering 123A,

123B, Materials Science and Engineering 150,

166; 4 laboratory units from Materials Science

Engineering 141L, 161L, or up to 2 units of

199; three technical breadth courses (12 units)

seleced 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 elec-
tive course (4 units) from Electrical and Com-

puter Engineering 110, 131A, Materials

Science and Engineering 111, 143A, or 162.

For information on UC, school, and general ed-

ucation requirements, see the College and

Schools 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 Degrees
The Department of Materials Science and En-

gineering offers Master of Science (MS) and

Doctor of Philosophy (PhD) degrees in Materi-

als Science and Engineering.

Materials Science and Engineering

Lower-Division Courses
10. Freshman Seminar: New Materials. (1) Sem-
inar, one hour; outside study, two hours. Preparation:

high school chemistry and physics. Not open to stu-
dents with credit for course 104. Introduction to basic

concepts of materials science and new materials vital
to advanced technology. Microstructural analysis and vari-

dous material properties discussed in conjunction with

such applications as biomedical sensors, pollu-
tion control, and microelectronics. 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.

90L. Physical Measurement in Materials Engineer-
ing. (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 (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
104. Science of Engineering Materials. (4) Lecture,

three hours; discussion, one hour; outside study, eight

hours. Survey of the fundamental concepts and prin-

ciples that underlie the development of materials

for a variety of engineering applications.

105. Principles of Nanoscience and Nanotechnol-

ogy. (4) (Same as Chemistry 105.) Lecture, four

hours; discussion, one hour; outside study, seven

hours. Enforced requisites: Chemistry 20A, 20B,

Physics 1C. Introduction to underlying science en-

compassing structure, properties, and fabrication

of technologically important nanoscale systems.

New phenomena that emerge in very small systems (typi-
cally with feature sizes below few hundred nanome-
ters) explained using basic concepts from physics and

chemistry. Chemical, optical, and electronic

properties, electron transport, structural stability, self-

assembly, templated assembly and applications of variant

nanostructures such as quantum dots, nanoparticles, quantum wires, quantum wells and

multilayers, carbon nanotubes. Letter grading.

110. Introduction to Materials Characterization A

(Crystal Structure, Nanostructures, and X-Ray

Scattering). (4) Lecture, four hours; discussion,
one hour; outside study, seven hours. Requisite:

course 104. Modern methods of materials character-

ization; fundamentals of crystallography, properties of X-rays, X-ray scattering, powder method, Laue method; de-

termination of crystal structures; phase diagram de-

termination; 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 tech-
niques and analysis of 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 micro-

chemistry of materials; transmission electron micro-

scopy; reciprocal lattice, electron diffraction, stereo-
geometric projection, direct observation of defects in

crystals, replicas; scanning electron microscopy; emissive and reflective modes; chemical analysis;
electron optics of both instruments. Letter grading.

C112. Cultural Materials Science II: Characteriza-

tion Methods in Conservation of Materials. (4)

Lecture, four hours. Preparation: general

chemistry, inorganic and organic chemistry, materials science. Principles and methods of materials characterization in conservation; optical and electron microscopy, X-

ray and electron spectroscopy, X-ray diffraction, in-

frared spectroscopy, reflectance spectroscopy and multispectral imaging spectroscopy, chromatography,
design of capillary tubes, and ethnographic materials

characterization procedures. Concurrently scheduled with course CM212. 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 proper-
ties of solids. Free electron model, introduction to band theory, and Schrödinger wave equation. Crystal

bonding and lattice vibrations. Mechanisms and char-

acterization of electrical conductivity, optical absorp-
tion, magnetic behavior, dielectrical properties, and p-
n-n junctions. Letter grading.

121. Materials Science of Semiconductors. (4)

Lecture, four hours; discussion, one hour; outside

study, seven hours. Requisite: course 120. Structure

and properties of elemental and compound semicon-

ductors. Electrical and optical properties, defect chemistry, and doping. Electronic materials analysis and characterization, including electrical, optical, and

ion-beam techniques. Heterostructures, band-gap engineering, development of new materials for opto-

electronic applications. Letter grading.

121L. Materials Science of Semiconductors Labo-

ratory. (2) Lecture, 30 minutes; discussion, 30 min-

utes; laboratory, two hours; outside study, three

hours. Corequisite: course 121. Experiments con-
ducted on materials characterization, including mea-

surements of contact resistance, dielectric constant, and thin film biaxial modulus and CTE. Letter grading.


(4) Lecture, four hours; discussion, one hour; outside

study, seven hours. Requisite: course 104. Descrip-
tion of basic semiconductor materials for device pro-
cessing; preparation and characterization of silicon, III-V compounds, and films. Discussion of principles of CVD, MOCVD, LPE, and MBE; metals and dielec-

trics. Letter grading.

130. Phase Relations in Solids. (4) Lecture, four

hours; discussion, one hour; outside study, seven

hours. Requisite: course 104. Summary of thermody-
namic laws, equilibrium criteria, solution thermody-
namics, mass-action law, binary and ternary phase

diagrams, glass transition, intermetallics. Letter

grading.

131L. Diffusion and Diffusion-Controlled Reac-

tions Laboratory. (2) Laboratory, two hours; outside

study, four hours. Enforced corequisite: course 131.

Design of heat-treating cycles and performing experi-

ments to study interdiffusion, growth of intermediate phases, gas-solid reactions, design of oxida-

tion-resistant alloys, recrystallization, and grain

growth. Letter grading.

131L. Diffusion and Diffusion-Controlled Reac-
tions Laboratory. (2) Laboratory, two hours; outside

study, four hours. Enforced corequisite: course 131.

Design of heat-treating cycles and performing experi-

ments to study interdiffusion, growth of intermediate phases, recrystallization, and grain growth in metals.

Analysis of data. Comparison of results with theory.

Letter grading.


(4) Lecture, four hours; outside study, eight hours.

Enforced prerequisite: course 131. Physical metallurgy of

steels, lightweight alloys (Al and Ti), and superalloys. Strengthening mechanisms, microstructural control

methods for strength and toughness improvement.

Grain boundary segregation. Letter grading.

140. Materials Selection and Engineering Design.

(4) Lecture, four hours; discussion, one hour; outside

study, seven hours. Enforced prerequisite: at least two

courses from 132, 150, 160. Explicit guidance among

myriad materials available for design in engineering.

Properties and applications of steels, nonferrous al-

loys, polymeric, ceramic, and composite materials,
coatings; materials selection, treatment, and serviceability emphasized as part of successful design. Design projects. Letter grading.

141L. Computer Methods and Instrumentation in Materials Science. (2) Laboratory, four hours. Preparation: knowledge of BASIC or C or assembly language. Letter grading. Introduction to Materials Science and Engineering majors. Interface and control techniques, real-time data acquisition and processing, computer-aided testing. Letter grading.

143A. Ceramic Behavior of Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 104, Mechanical and Aerospace Engineering 101. Plastic flow of metals under static and dynamic loading, strain rate and temperature effects, dislocations, fracture, microstructural effects, mechanical and thermal treatment of steel for engineering applications. Letter grading.

143L. Mechanical Behavior Laboratory. (2) Laboratory, four hours. Requisites: courses 90L, 143A (may be taken concurrently). Methods of characterizing mechanical behavior of various materials; plastic and elastic deformation, fracture toughness, fatigue, and creep. Letter grading.

150. Introduction to Polymers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Polymerization mechanisms, molecular weight and distribution, chemical structure and bonding, structural, textural, physical, and morphological theory and their effects on physical properties. Glassy polymers, springy polymers, elastomers, adhesives, fibers forming polymers, polymer processing technology, plasticization. Letter grading.


160. Introduction to Ceramics and Glasses. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 104, 130. Introduction to ceramics and glasses being used as important materials of engineering, processing techniques, and unique properties. Examples of design and control of properties for certain specific applications, particularly those associated with ceramics. Letter grading.


162. Electronic Ceramics. (4) Lecture, four hours; outside study, eight hours. Requisites: course 104, Physics 1C. Utilization of ceramics in microelectronics; thick film and thin film resistors, capacitors, and substrates; design and processing of electronic ceramics and packaging; magnetic ceramics; ferromagnetic and ferroelectric properties of magnetic and dielectric ceramics. Letter grading.

163. Electrochemical Processes. (4) Same as Bioengineering CM163. Lecture, three hours; discussion, one hour; outside study, two hours; discussion, two hours; outside study, seven hours. Requisites: course 104, or Chemical and Materials Science 210. Engineering materials used in medicine and dentistry for repair and replacement 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 CM280. Letter grading.

166. Special Courses in Materials Science and Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Occasional field trips may be arranged. Course credit is granted with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

190. Directed Research in Materials Science and Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Occasional field trips may be arranged. Course credit is granted with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Principles of Materials Science I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 120. Lecture dynamics and thermal properties of solids and liquids; free electron theory, electrons in a periodic potential, transport in semiconductors, dielectric and magnetic properties of solids. Letter grading.


211. Introduction to Materials Characterization B (Electron Microscopy). (4) Formerly numbered CM 194L. Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisites: courses 104, 110. Characterization of microstructure and microchemistry of materials; transmission electron microscopy; scanning electron microscopy; electron diffraction, stereo- graphic projection, direct observation of defects in crystals, replicas; scanning electron microscopy: emissive and reflective modes; chemical analysis; electron optics of both electron microscopy. Letter grading.


213. Cultural Materials Science I: Analytical Imaging and Documentation in Conservation of Materials. (4) Same as Conservation M213. Lecture, four hours; laboratory, two hours; outside study, eight hours. Preparation: general chemistry, inorganic and organic chemistry, materials science. Experimental 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 procedures. Credit may be repeated once for credit with topic or instructor change. Letter grading.

214. Research Group Seminars: Materials Science and Engineering. (2) Seminar, four hours; outside study, eight hours. Requisite: course 211. Credit limited to four seminars. Letter grading.


216. Structure, Properties, and Deterioration of Materials: Rock Art, Wall Paintings, Mosaics. (2) Same as Conservation M264. Lecture, three hours. Recommended previous experience in general chemistry and materials science. Introduction to materials and techniques of rock art, wall paintings
(including painted surfaces on cement and composite decorative architectural surfaces), and mosaics. Archaeological and ethnographic context, techniques, and materials. Pigments, colorants, and binding media. Chemical, optical, and structural properties. Relationship between conservation (chemistry, structure, and degradation) and mechanisms of deterioration (physical, chemical, and biochemical). Letter grading.

M215. Conservation Laboratory: Rock Art, Wall Paintings, and Mosaics. (Same as Conservation M250.) Laboratory, four hours. Recommended: courses M214, M216 (or C122 or CM212), Conservation 210L. Recommended: course M213. Research-based laboratory on conservation of rock art, wall paintings (archaeological and modern composites on cements), mosaics, and decorated architectural surfaces. Experimental techniques and analysis of materials (using materials science and reverse engineering processes) for characterization of technology, constituent materials, and alteration processes; development of conservation treatment proposals, testing of conservation products, and methods and conservation treatment. Letter grading.


221. Science of Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended: courses 120, 131, 131, 132, and knowledge of electron structure of major physical systems and chemical principles affecting properties and performance of semiconductor materials. Topics include bonding, carrier statistics, band-gap engineering, optical and transport properties of new materials systems and characterization. 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 chemical processes that affect semiconductor growth and device processing. Particular emphasis on fundamentals of growth (bulk and epitaxial), heteroepitaxy, implantation, oxidation, and deposition. Letter grading.

223. Materials Science of Thin Films. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended: courses 120, 131. Fabrication, structure, and property correlations of thin films used in microelectronics for data and information processing. Topics include film deposition, interfacial properties, stress and strain, electromigration, phase changes and kinetics, reliability. Letter grading.

224. Deposition Technologies and Their Applications. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Examination of physics behind majority of modern thin film deposition technologies based on various physical processes. 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 preparation: Electrical Engineering 213B. Recommended: courses 130, 131, 200, 221, 222. Selected topics in materials science relevant to modern Si-CMOS technology, including technological challenges in high k/metal gate stacks, shallow Si channel features, threedimensional FETs, source/drain engineering including transient-enhanced diffusion, nonvolatile memory, and metalization for ohmic contacts. Letter grading.

243A. Fracture of Structural Materials. (4) Lecture, four hours; laboratory, two hours; outside study, four hours. Recommended: course 143A. Engineering and scientific aspects of crack nucleation, slow crack growth, and unstable fracture. Fracture mechanics, displacement models, fatigue, fracture in reactive environments, alloy development, fracture-safe design. Letter grading.

243C. Dislocations and Strengthening Mechanisms in Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended: 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. Recommended: course 160. Materials and environmental factors affecting mechanical properties of nonmetallic crystalline solids, including atom bonding and structure, atomic-scale defects, microstructural features, residual stresses, temperature, strain rate, size and surface conditions. Letter grading.

246B. Structure and Properties of Glass. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended: course 160. Structure of amorphous solids and glasses. Conditions of glass formation and theories of glass structure. Mechanical, electrical, and optical properties of glass and relationship to structure. 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. Recommended: course 160. Principles governing electronic properties of solar cells. Basic 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 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, physics, materials science, and introduction to electronic organic 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 electronic 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 of risk concepts of risk assessment and risk management, perception and reality of risk, risk-informed decision-making, domains of application (safety, health, security, economy, and environmental), risk assessment techniques, including overview of probability and statistics, how to identify risk scenarios, techniques for modeling failures of complex systems (e.g., fault tree analysis, event tree analysis, model integration and computational algorithms for risk calculation and identification of risk drivers, simulation approach to risk modeling, uncertainty analysis, expert elicitation risk assessment, risk assessment of nanoscale systems (e.g., space and aviation, nuclear power, petro-chemical plants), other applications (risk of medical procedures, 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. Principles of theory on fundamentals of electrochemical processes. Specific topics include electrochemical reactions on metal and semiconductor surfaces, electrophoresis, electrodess depositions, synthesis of new materials, 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: 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, equilibria, transport properties, band structures, 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 thermodynamics. Topics include structure and electronic properties of quantum dots, wires, nanotubes, and multilayers, self-assembly on surfaces and in liquid solutions, mechanical properties of nanostructured metamaterials, mo- lecular 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. Requi- sites: course 104, or Chemistry 20A, 20B, and 20L. Engineering materials used in medicine and dentistry for repair and/or restoration of damaged natural tis- sues. Topics include: relationships between materials properties, suitability to task, surface chemistry, pro- cessing 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; dis- cussion, one hour; outside study, four hours. Re- searchers from leading research institutions around world deliver lectures on advanced research topics in materials science and engineering. Discussion of current research and literature in re- search specialty of faculty members teaching course. May be repeated for credit. S/U grading.

296. Seminar: Advanced Topics in Materials Sci- ence and Engineering. (2) Seminar, two hours; out- side study, four hours. Advanced study and analysis of current topics in materials science and engineering. Discussion of current research and literature in re- search specialty of faculty members teaching course. May be repeated for credit. S/U grading.

M297B. Material Processing in Manufacturing. (4) (Same as Mechanical 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. Requi- sites: course 191, Mechanical and Aerospace Engi- neering 166C. Matrix materials, fibers, fiber preforms, elements of processing, autoclave/compression molding, filament winding, pultrusion, resin transfer molding, automation, material removal and assembly, metal and ceramic matrix composites, quality assurance. Letter grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate materials science and engineering students. Seminars may be organized. May be repeated with topic change. 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 guidance 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 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.


597B. Preparation for PhD Preliminary Examina- tions. (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 Disser- tation. (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

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Mathematics

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James H. White, PhD
N. Donald Ylivisaker, PhD

Associate Professors

Tim Austin, PhD
Lara Dolecek, PhD
Gang Liu, PhD
Suchart Sarkar, PhD
Jun Yin, PhD

Assistant Professors

Artem Chernikov, PhD
Georg Menz, PhD
Guido F. Montúfar, PhD

Lecturer PSOE

William J. Conley, PhD

Adjunct Professor

Christian Ratsch, PhD

Adjunct Assistant Professor

Mary P. Greene, MS

Scope and Objectives

Gauss called mathematics the “queen of the sciences.” It has provided powerful intellectual tools that have made possible tremendous advances in modern science and technology. The
Department of Mathematics offers courses of study that introduce students to the fundamentals of mathematics and allow them to master the most important parts of the subject, both pure and applied. It leads doctoral students to the frontiers of mathematical research, where they can begin to push back those frontiers.

Undergraduate Study

The 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/Appplied 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/Appplied Science major, the department offers programs for students interested in the fields of mathematics/history of science and medical and life sciences.

Each course taken to fulfill any of the requirements for any of the mathematics majors must be taken for a letter grade.

The Mathematics for Teaching major is a designated capstone major. In their senior year students complete a year-long course sequence that culminates in a model lesson presentation, paper, and portfolio. Through their capstone work, students demonstrate their familiarity with research and current issues in mathematics education, as well as their capacities to problem solve; reason quantitatively, geometrically, and algebraically; construct viable arguments; critique others’ reasoning; and use tools strategically.

Preliminary Examination in Mathematics
If students wish to enroll in Mathematics 1, 3A, 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 Mathematics.

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 133A.

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 31B 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:

- Achieve grades of C or better in all premajor mathematics sequences (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 sequences may be applied toward any mathematics major: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, and any of the following groups: (1) 3A, 31A; (2) 3B, 31B, 31E; (3) 110A, 117; (4) former course 174A, 174E.

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 31A, 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).
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 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:

- Ability to perform basic computer programming, especially in C++
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
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- 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.

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/statistics courses, including Mathematics 115A, 131A, 170A, 170B, 174E (or Economics 141 or Statistics C183), 175; one two-term 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) 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.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office.

**The Major**

**Required:** Eleven Mathematics Department courses, including Mathematics 115A, 131A, 131B or 132, 151A, 151B, and six courses from 106 through 199 and Statistics 100A through 101C; three upper-division computer science courses (12 units). Each course must be taken for a letter grade. The 14 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C- or better in Mathematics 115A and 131A.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

**Mathematics/Applied Science BS**
The Mathematics/Applied Science major is designed for students with a substantial interest in mathematics and its applications to a particular field. It is an individual major in that students, in consultation with a faculty adviser, design their own program. They may also select one of the established programs: mathematics/history of science plan or medical and life sciences plan. In the past, Mathematics/Applied Science majors have combined the study of mathematics with fields such as atmospheric and oceanic sciences, biochemistry, biology, chemistry, economics, geography, physics, psychology, and statistics.

Students interested in designing an individual program should meet with the undergraduate adviser, 6356 Mathematical Sciences, during their sophomore year. A proposed program is drawn up, then forwarded to the mathematics/applied science curriculum committee for approval. All programs must include the following preparation for the major and major courses.

**Learning Outcomes**
The Mathematics/Applied Science major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Ability to synthesize material, solve problems, and think abstractly
- Ability to perform basic computer programming, especially in C++
- Familiarity with basic statistical analysis including probability distributions, random variables, survey sampling, testing, data summary, sums of squares principle, testing general linear hypothesis in regression, and inference procedures

**Premajor**
Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Applied Science premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to 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 (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, 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++
- 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
quenced 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, Program in Computing 10A. Additional preparation, varying with the individual program, may be required. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 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/Applied Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors and one C++ programming course. Additional courses are required for each concentration plan.

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

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office.

**The Major**

**Required:** Fourteen courses, seven in the Mathematics Department selected from Mathematics 106 through 199 and seven upper-division courses in a related field selected from one or two other departments. Each course must be taken for a letter grade. The seven Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the seven courses outside mathematics.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

At least five of the courses from the related discipline must be taken after the program has been approved. Students are not admitted to the major if they have 135 or more units by the end of the term in which they plan to enter the program.

**Mathematics/History of Science Plan**

**Preparation for the Major**

**Required:** Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, and three courses from History 2B, 3A through 3D. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

**The Major**

**Required:** Eight mathematics courses, including Mathematics 106, 115A, 131A, 134, 170A, and three courses from 110A through 199; six outside courses to be selected from History 179A through 180C, Philosophy 124, and any upper-division Honors Collegium course with history of science/medicine content. Each course must be taken for a letter grade. The eight Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with the grades of C– or better in Mathematics 115A and 131A, as must the six outside courses from history, philosophy, or physiological science.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

**Medical and Life Sciences Plan**

**Preparation for the Major**

**Required:** Mathematics 31A, 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 (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.

**The Major**

**Required:** Seven mathematics courses, including 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 Biocomputational 160, Biostatistics 100A, Chemistry and Biochemistry CM160A, Computer Science CM186, Ecology and Evolutionary Biology C119A, C133, C135, Physiological 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 declared, if not earlier.

**Mathematics for Teaching BS**

**Capstone Major**

The Mathematics for Teaching major is designed primarily for students planning to teach mathematics at the high school level. It provides exposure to a broad range of mathematici- cal topics, especially those appropriate for the prospective teacher. Students planning to pursue graduate studies in mathematics or related fields are encouraged to enter the Mathematics, Applied Mathematics, or Mathematics of Computation major.

**Learning Outcomes**

The Mathematics for Teaching major has the following learning outcomes:

- Strong mathematical content knowledge
- Sound theoretical and practical background for mathematics expected to be taught in secondary schools
- Understanding of the importance of mathematical thinking to design teaching to imbue students with a problem-solving and analytical spirit
- Familiarity with pedagogical research and ability to apply it to classroom work
- Ability to effectively plan lessons
- Preparation and experience in different modes of instruction
- Ability to use mathematical sophistication to shape lessons
- Preparedness to recognize and respond to expected difficulties that arise in the classroom due to conceptual understanding and misunderstanding

**Premajor**

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics for Teaching
premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Student Services Office in D356 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 160, 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 this program and be 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 mathematics should consult with a departmental counselor regarding the requirements for a waiver from the Mathematics California Subject Examination for Teachers (CSET), which is required by the California Commission on Teacher Credentialing. Students should meet with a departmental counselor as early in their undergraduate careers as possible because the program does require additional courses beyond the major requirements. For additional information on teaching credential requirements, contact the Education Department at 310-825-8328. See the Curtis Center website for details.

Mathematics Minor

The Mathematics minor is designed to provide students with the opportunity to widen their background and general comprehension of the role of mathematics in various disciplines.

To enter the minor, students must have completed all of the lower-division minor courses with grades of C or better (total 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 11A 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. Mathematics consisting of matrices, Gauss/Jordan method, combinatorics, probability, Bayes theorem, and Markov chains. P/NP or letter grading.

2. **Finite Mathematics.** (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics. Mathematics consisting of matrices, Gauss/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 years of high school mathematics. Mathematics consisting of matrices, Gauss/Jordan method, combinatorics, probability, Bayes theorem, and Markov chains. P/NP or letter grading.

3B. **Calculus for Life Sciences Students.** (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics. Mathematics consisting of matrices, Gauss/Jordan method, combinatorics, probability, Bayes theorem, and Markov chains. P/NP or letter grading.

### Upper-Division Courses

1. **Ordinary Differential Equations with Linear Algebra for Life Sciences Students.** (4) Lecture, three hours; discussion, one hour. Preparation: Mathematics 3A or 3B with a grade of C– or better. Introduction to differential equations, linear algebra, matrices, vectors, eigenvalues and eigenvectors, diagonalization, and symmetric matrices. P/NP or letter grading.

2. **Linear Algebra and Applications.** (4) Lecture, three hours; discussion, one hour. Preparation: course 3A or 3B with a 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.

3. **Linear Algebra and Applications (Honors).** (4) Lecture, three hours; discussion, one hour. Preparation: course 3A or 3B with a grade of C– or better. Honors course parallel to course 33A. P/NP or letter grading.

4. **Differential Equations.** (4) Lecture, three hours; discussion, one hour. Preparation: course 3B with a grade of C– or better. Introduction to integral calculus of several variables, line and surface integrals. P/NP or letter grading.


6. **Integration and Infinite Series.** (4) Lecture, three hours; discussion, one hour. Preparation: Mathematics 3B, 31B. Seminar in differential equations and applications for solving problems in differential calculus. Limits of investigation set by individual instructor. P/NP grading.

7. **Integration and Infinite Series (Honors).** (4) Lecture, three hours; discussion, one hour. Preparation: Mathematics 3B, 31B. Seminar in differential equations and applications for solving problems in differential calculus. Limits of investigation set by individual instructor. P/NP grading.

8. **Honors Seminars.** (1) Seminar, three hours. Seminar to explore topics 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 Mathematics.** (2) Seminar, three hours. Seminar to explore topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
The text appears to be a page from a course catalog or academic directory, listing courses with their prerequisites, descriptions, and credit hours. Here's a structured and readable version of the text:

**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 record. Advanced problem solving techniques and mathematical topics useful as preparation for Putnam competition. Problems in abstract algebra, linear algebra, number theory, real analysis, 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. Course 105A is requisite to 105B, which is requisite to 105C. Mathematical knowledge and research-based pedagogy needed for teaching key geometry topics in secondary school, including axiomatic geometric systems, measure, and geometric transformations. Introduction to professional standards and current research for teaching secondary school mathematics. Letter grading.

105B. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 30 minutes. Requisites: courses 105A, 110A (or 117), 120A (or 123), and 131A, with grades of C– or better. Mathematical knowledge and research-based pedagogy needed for teaching key polygonal, rational, and transcendental functions and related equations in secondary school; professional standards, and current research for teaching secondary school mathematics. Letter grading.

105C. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 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. 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; 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, fields, unique factorization. 110B. Requisite: course 110A or 117. Groups, structure of finite groups.

110AH-110BH. Algebra (Honors). (4–4) Lecture, three hours; discussion, one hour. Honors sequence parallel to courses 110A, 110B, 110C. Algebra. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A, 110B. Field extensions, Galois theory, 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: course 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. (5–4) P/NP or letter grading. 115A. Lecture, three hours; discussion, two hours. Requisite: course 33A. Techniques of proof, abstract vector spaces, linear transformations, and matrices; determinants; inner product spaces; eigenvalue theory. 115B. Lecture, three hours; discussion, one hour. Requisite: course 115A. Linear transformations, conjugate spaces, duality; theory of a single linear transformation, Jordan normal form; bilinear forms, quadratic forms; Euclidean and unitary spaces, symmetric skew and orthogonal linear transformations, polar decomposition.

115AH. Linear Algebra (Honors). (5) Lecture, three hours; discussion, two hours. Requisite: course 33A with grade of B or better. Honors course parallel to course 115A. P/NP or letter grading.

115AX-115BX. Workshops in Linear Algebra. (1–1) Discussion, one hour. One course. Either course 115AX or course 115BX: course 115AX; for 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. Corequisite: 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 tests, quadratic reciprocity, factoring, rho method, RSA, discrete logs. P/NP or letter grading.

117. Algebra for Applications. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Not open for credit to students with credit for course 117. Matrices, 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, hyperbolic, Lobachevsky 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-
clidence, space, functions, continuity, 131B. Requisites: courses 33B, 115A, 131A. Derivatives, Riemann inte- 
gral, sequences and series of functions, power series, Fourier series.
131AH-131BH. Analysis (Honors). (4–4) Lecture, three hours; discussion, one hour. Requisites: course 131AH; courses 32B and 33B, with grades of B or better. Recommended: course 115A. Honors se- quence parallel to courses 131A, 131B. P/NP or letter grading.
131C. Topics in Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 131A, 131B. Advanced topics in analysis, such as Lebesgue integral, integration on manifolds, harmonic analysis. Content varies from year to year. May be repeated for credit by petition.
132H. Complex Analysis (Honors). (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 131A, 131B. Advanced complex analysis, as desired by the instructor. P/NP or letter grading.
134. Linear and Nonlinear Systems of Differential Equations. (4) Lecture, three hours; discussion, one hour. Requisite: course 33B. Dynamical systems analysis of nonlinear systems of differential equations. One or more of the following: limit cycles, stability analysis, bifurcations and normal forms. Elementary geometrical and topological re- sults. Applications to problems in biology, chemistry, physics, and other fields. P/NP or letter grading.
139. Advanced Topics in Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 33B. Topics include Cauchy/Riemann equations, Cauchy integral formula, power series expansion, contour integrals, residue calculus, and Laplace’s equation.
141. Mathematical Game Theory. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B. Mathematical game theory. Topics include discrete (binomial, Poisson, etc.) and continuous (exponential, gamma, chi-square) probability distributions, bivariate distributions, distributions of functions of random variables (including moment generating functions and central limit theorem). Letter grading.
143. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A. Foundations of Newtonian mechanics, kinematics and dynamics of a rigid body; variational principles and Lagrange equations; calculus of variations, vari- able mass; related topics in applied mathematics.
144. Method of Applied Mathematics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A, 131A. Derivatives, Riemann inte- 
gral, sequences and series of functions, power series, Fourier series.
149. Actuarial Models II. (4) Lecture, four hours. Requisites: courses 172B. Designed to prepare students for Society of Actuaries Construction of certain actuarial models and application to insurance, pension, and other financial risks. Letter grading.


175. Introduction to Financial Mathematics. (4) (Formerly numbered 172E.) Lecture, four hours. Requisites: courses 32B, 33B. Designed to prepare students for Society of Actuaries Financial Mathematics examination. Provides understanding of fundamental concepts of financial mathematics and how these concepts are applied in calculating present and accumulated values from various streams of cash flows as basis for future use in reserving, valuation, pricing asset/liability management, investment income, capital budgeting, and valuing contingent cash flows. Letter grading.

177. Theory of Interest and Applications. (4) Lecture, three hours; discussion, one hour. Requisite: course 32B. Types of interest, time value of money, annuities and similar contracts, loans, bonds, portfolios and general cash flows, rate of return, term structure of interest rates, duration, convexity and immunization, yield curve. Basis for future use in reserving, valuation, pricing asset/liability management, investment income, capital budgeting, and valuing contingent cash flows. Letter grading.

180. Graph Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 3C or 32A. Not open for credit to students for course 114A, Mathematics 114, or Statistics C183/C283. 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.

182. Algorithms. (4) Lecture, three hours; discussion, one hour. Requisite: course 3C or 32A. Not open for credit to students for course 114A, Mathematics 114, or Statistics C183/C283. 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 study with course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


191. Variable Topics Research Seminars: Mathematics. (4) Seminar, three hours. Variable topics research course in mathematics that covers material not covered in regular mathematics upper-division curriculum. Reading, discussion, and development of culminating project. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

191H. Honors Research Seminars: Mathematics. (4) Seminar, three hours. Participating seminar on advanced topics in mathematics. Content varies from year to year. May be repeated for credit by petition. P/NP or letter grading.

195. Community Internships in Mathematics Education. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship to be supervised by Center for Community Learning and Mathematics Department. Students meet on regular basis with instructor; provide periodic reports of their 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 least one 197 or 199 course must be required under upper-division courses required for majors offered by Mathematics Department. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Mathematics. (2 or 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Scheduled meetings to be arranged between faculty member and student. Culminating 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.

199D. Directed Research or Senior Project in Mathematics. (2 or 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Scheduled meetings to be arranged between faculty member and student. Culminating 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-201C. Topics in Algebra and Analysis. (4–4–4) Lecture, four hours. Requisites: courses 210A, 246A. Taught jointly with Math 201A-201B-201C. Topics include advanced topics in algebra and analysis, with emphasis on structures of theories. Modern topics such as operations research, linear programming, game theory, learning models, models in social and life sciences. May not be applied toward MA degree requirements.

203. Master's Linear Algebra. (4) Lecture, four hours. Enforced requisite: course 174A. Designed to provide fundamental results of pure and applied linear algebra over fields. Applications to contemporary research. Preparation for advanced courses required of MA and PhD students. S/U or letter grading.

204. Master's Analysis. (4) Lecture, four hours; discussion, one hour. Rigorous treatment of fundamental results of analysis. Applications to contemporary research. Preparation for advanced courses required of MA and PhD students. S/U or letter grading.

Number Theory

205A-205B-205C. Number Theory. (4–4–4) Lecture, three hours. Requisites: courses 210A, 246A. Algebraic number theory, including ideal theory, valuations, local fields, cyclotomic fields. Introduction to class field theory, analytic number theory, L-functions and class number formulas, and modular forms. S/U or letter grading.


207A-207B-207C. Topics in Number Theory. (4–4–4) Lecture, three hours. Advanced analysis on GL(1) and GL(2), especially Tate thesis and Hecke theory, automorphic representations. Special values of L-functions and p-adic L-functions, arithmetic theory of modular forms, modular forms in analytic number theory. Arithmetic geometry, especially of modular curves, S/U or letter grading.


M209A. Cryptography. (4) (Same as Computer Science M282A) 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 M282B) Lecture, four hours. Requisite: course M209A. Consideration of advanced cryptographic protocol design and analysis. Topics include noninteractive zero-knowledge proofs; zero-knowledge arguments; concurrent and non-black-box zero-knowledge; IP=PSpace protocol, stronger notions of security for public-key encryption, including chosen-plaintext security; secure multi-party computation; dealing with dynamic adversary; non-malleability and composability of secure protocols; software prorogation. Threshold 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, and Meyer's theorem for repeated credit with topic change. Letter grading.

Algebra
210A-210B-210C. Algebra. (4–4–4) Lecture, three hours. Requisites: courses 110A and 110B. Students with 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/Holder/Schreier; homomorphism invariance and integral domains, modules over principal ideal rings, Galois theory of fields, multilinear algebra, structure of algebras.

211. Structure of Rings. (Requisite: course 210A. Radical, irreducible modules and primitive rings, rings and algebras with minimum condition. 212A. Homological Algebra. (4) Lecture, three hours. Enforced course: 212A. Modules over rings, homomorphisms and tensor products of modules, functors and derived functors, homological dimension of rings and modules. S/U or letter grading.

212B. Homological Algebra. (4) Lecture, three hours. Requisites: courses 210A, 210B, 210C. 212A. Advanced topics in commutative algebra, including triangulated categories, differential graded algebras as dg-categories, tilting theory and applications of group cohomology to representation theory, stable homotopy groups, and modular 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, soluble and nilpotent groups, classical groups, algebraic groups.

214-214B. Introduction to Algebraic Geometry. (4–4) Lecture, three hours. Requisites: courses 210A, 210B, 210C. 212A. Advanced topics in commutative 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.


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.

221. Geometry and Physics. (Same as Physics M236.) Lecture, three hours. Interdisciplinary course on topics at interface between physics and quantum fields and superstring theories 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.


226C. 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 their 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.

Logic and Foundations
220A-220B-220C. Mathematical Logic. (4–4–4) Lecture, three hours. Requisite: course M114S. Fundamental methods and results in mathematical logic, using methods to reason about existence and nonexistence of proofs and constructions in many different settings. Topics include compactness theorem, saturation of models, completeness and incompleteness theorems of Gödel, Turing computability and degrees of unsolvability, recursion in Baire space, Zermelo/Fraenkel axioms, universe of constructible sets, and related equiconsistency results in set theory. S/U or letter grading.

222A-222B. Lattice Theory and Algebraic Systems. (4–4) Lecture, three hours. Requisite: course 210A. Partially ordered sets, lattices, distributivity, modularity; connection with combinatorics, topology, and logic; algebraic systems, congruence lattices, subdirect decomposition, congruence laws, equational bases, applications to lattices.

223C. Topics in Computability Theory. (4) Lecture, three hours. Requisite: course 220A. 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.

225D. Topics in Descriptive Set Theory. (4) Lecture, three hours. Requisites: courses 220A, 220B. Classical and modern descriptive set theory, Banach space theory, descriptive set theory of Polish spaces, descriptive set theory, and constructive set theory. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.


233. Partial Differential Equations on Manifolds. (4) Lecture, three hours. Requisites: courses 226A, 251A. Topics may include Laplacian operator on a Riemannian manifold, eigenvalues, Atiyah/Singer index theorem, isoperimetric inequalities, elliptic estimates, harmonic functions, function theory on manifolds, Green’s function, heat equation, minimal hyper surfaces, prescribed curvature equations, harmonic maps, Yang/Mills equation, Monge/Ampère equations.

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.

236. Topics in Geometric Topology. (4) Lecture, three hours. Requisites: courses 210A, 225B. Decomposition spaces, surgery theory, group actions, dimension theory, infinite dimensional topology. Topics vary from year to year. May be repeated for credit by petition.

237. Topics in Algebraic Topology. (4) Lecture, three hours. Requisites: courses 227A, 227B. Fixed-point theory, fiber spaces and classifying spaces, characteristic classes, generalized homology and cohomology theories. Topics vary from year to year. May be repeated for credit by petition.

238A-238B. Dynamical Systems. (4–4) Lecture, three hours. Recommended preparation: first-year analysis courses. Topics include qualitative theory of differential equations, bifurcation theory, and Hamiltonian systems; differential dynamics, including hyperbolic theory and quasiperiodic dynamics; ergodic theory; low-dimensional dynamics. S/U or letter grading.
Analysis and Differential Equations


Functional Analysis


255B-255C. Topological Functional Analysis. (4–4) Requisite: course 255A. Topics include Banach algebras, operators on Banach and Hilbert space, semigroups of operators, linear topological vector spaces, and compact resolvents.


Applied Mathematics


266D-266E. Applied Differential Equations. (4–4) Requisites: courses 266A, 266B, 266C. Advanced topics in linear and nonlinear differential equations, with emphasis on energy estimates, numerical methods, and applications to fluid mechanics. Additional topics include dispersive waves, systems with multiple time scales, and applications to fluid mechanics and Engineering.


271A. Tensor Analysis. (4) Requisite: course 131A. Algebra and calculus of tensors on n-dimensional manifolds. Covariant coordinates and coordinate-free methods. Covariant differentiation. Green/Stokes theorem for differential forms. Applications to topics such as continuum and particle mechanics.


273C. Optimization and Calculation of Variations: Nu- merical Optimization. (4) Lecture, three hours. Derivation, analysis, and implementation of numerical methods for constrained and unconstrained optimization problems of variety of types and with data at different scales. S/U or letter grading.


Probability and Statistics


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 processes on networks, mesoscale structures in net- works, time-dependent networks, multilayer net- works, applications of networks, data analysis in net- works, spatial networks, and others. Discussion of recent new articles and research papers. Some pres- entations by students. Joint project on topic in net- work science possibly leading to publication. S/U or letter grading.

Special Studies

285A–285N. Seminars. (4 each) Seminar, three hours. More than two 285 courses may be applied toward MA degree requirements except by prior con- sent of graduate vice chair. Topics in various branches of mathematics and their applications by means of lectures and informal conferences with staff mem- bers. S/U or letter grading.


290A–290N. Research Seminars. (1 each) Seminar, two hours. Seminars and discussion by staff and stu- dents. May be repeated for credit. S/U grading.


370A–370B. Teaching of Mathematics. (4–4) Lecture, three hours; discussion, one hour. Requisite: course 335B. Limited to senior Mathematics Depart- ment majors. Course 370A is requisite to 370B. Topics in geometry, algebra, number theory, discrete mathematics, and computer science 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, to be arranged. Preparation for teaching and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching College Mathematics. (4) Seminar, one hour; two-day intensive training at beginning of Fall Quarter. Required of all new teaching assistants and new PhD students. Special course for teaching assistants designed to deal with problems and tech- niques of teaching college mathematics. S/U grading.


501. Cooperative Program. (2 to 8) Preparation: consent of UCLA department chair and graduate dean and host campus instructor, department chair, and graduate dean. 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) Hours. To be arranged with individual student. 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; not open for credit to students concurrently with course 15 or 10A; not open for credit to students with credit for more advanced courses. Introduction to computing concepts. Basic computer hardware; Internet; software applications. S/U or letter grading.

2. Software Tools for Information Management. (4) Lecture, one hour; laboratory, two hours. Preparation: some familiarity with computers. Not open for credit to students concurrently with course 15 or 10A. May be taken concurrently with course 15. Not open for credit to students with credit for more advanced courses. Introduction to spreadsheets and databases in labora- tory setting. S/U or letter grading.

3. Introduction to Computing for Social Sciences and Humanities. (4) Lecture, three hours; discussion, two hours. No prior programming 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 to so- cial sciences and humanities. Overview of Java pro- gramming language. Concepts in control and pro- gramming structures, classes and object- oriented design, event-driven programming, applica- tion to multimedia models. S/U or letter grading.

4. Introduction to Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. No prior programming experience assumed. Basic principles of programming, using C++, algo- rithmic, procedural problem solving; program design and development, basic data structures and functions; functional arrays and pointers; intro- duction to classes for programmer-defined data types. S/U or letter grading.

5. Intermediate Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. No prior programming experience assumed. Basic principles of programming, using C++; algo- rithmic, procedural problem solving; program design and development, basic data structures and functions; functional arrays and pointers; intro- duction to classes for programmer-defined data types. S/U or letter grading.
applications; object-oriented programming and software reuse; recursion; algorithms for sorting and searching, P/N/P or letter grading.

10C. Advanced Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: 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/N/P 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: knowl- edge representation, higher-order functions, problem-solving algorithms and heuristics. P/N/P 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 31, 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 tikker, NumPy, SciPy, and NLTK. Python lectures and laboratory.

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating major patterns of discovery at UCLA. P/N/P 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/N/P 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 or equivalent. Topics of use of classes, graphics components, exception handling, multi- threading, and multimedia. Additional topics may include networking, servlets, database connectivity, and Java virtual machine. P/N/P or letter grading.

20C. Seminar: Enterprise Computing with Java. (5) Lecture, three hours; discussion, two hours; laborato- ry, five hours. Enforced requisite: course 20B. Overview of Enterprise Java APIs: remote method invocation, database access with JDBC, servlets, and JSP. Issues in implementation of server-side Java ap- plications. Use of Java in conjunction with XML. Indi- vidual or group projects and presentations. P/N/P or letter grading.

30. Machine Organization and Assembly Lan- guage Programming. (5) Lecture, three hours; dis- cussion, two hours; laboratory, eight hours. Enforced requisite: course 10B. Description of machine organi- zation and operation. Representation of information, instruction sets and formats, addressing modes, memory organization and management, input/output (I/O) processing and interrupts. P/N/P or letter grading.

40A. Introduction to Programming for Internet. (5) Lecture, three hours; discussion, two hours; labora- tory, 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/N/P or letter grading.

40B. Advanced Topics in Programming for Inter- net. (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/N/P 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 supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. Letter grading.

10HC. 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- plore 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 re- quired. Honors content noted on transcript. 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.

Graduate Courses


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

Scope and Objectives

In recent years economics has become increasingly dependent on mathematical methods, and the mathematical tools it employs have become more sophisticated. Mathemati- cally 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 mathe- matics for admission.

The Mathematics/Economics BS degree program is designed to give students a solid founda- tion in both mathematics and economics, stressing those areas of mathematics and sta- tistics 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) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A) with a minimum 2.7 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) with a minimum 2.7 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, 61, Economics 1, 2, 11, Program in Computing 10A, one Writing II course. Each course must be taken for a letter grade. The economics preparation for the major courses (Economics 1, 2, 11) are calculated separately from the mathematics preparation for the major courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A). The economics preparation courses must be completed with a minimum overall 2.7 grade-point average and a grade of C or better in each course, as must the mathematics preparation courses. Students must receive a grade of C or better in the Writing II course.

Repetition of more than one economics preparation course, more than two mathematics preparation courses, or of any economics or mathematics preparation course more than once results in automatic dismissal from the major.

**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.

**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.

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**MECHANICAL AND AEROSPACE ENGINEERING**

**Henry Samueli School of Engineering and Applied Science**

48-121 Engineering IV

Box 951597

Los Angeles, CA 90095-1597

**Mechanical and Aerospace Engineering**

**Department e-mail**

Timothy F. Fisher, PhD, Chair

H. Pirouz Kavehpour, PhD, Vice Chair

Ajit K. Mal, PhD, Vice Chair

**Professors**

Mohamed A. Abdou, PhD

Gregory P. Corman, PhD

Yong Chen, PhD

Pei-Yu Chiou, PhD

Vijay K. Dhir, PhD

Dino Di Carlo, PhD

Jeffrey D. Eldredge, PhD

Timothy F. Fisher, PhD

Rajit Gadhi, PhD

Nasr M. Ghoniem, PhD

James S. Gibson, PhD

Vijay Gupta, PhD

Dennis W. Hong, PhD

Tetsuya Iwasaki, PhD

Y. Sungtaek Ju, PhD

Ann R. Karagozian, PhD

H. Pirouz Kavehpour, PhD

Chang-Jin (CJ) Kim, PhD (Volgenau Endowed Professor of Engineering)

J. John Kim, PhD (Rockwell Collins Professor of Engineering)

Adrienne G. Lavine, PhD

Xiaochun Li, PhD (Raytheon Company Professor of Manufacturing Engineering)

Kuo-Nan Liou, PhD

Ajit K. Mal, PhD

Robert T. McCalley, PhD

Ali Mosleh, PhD, NAE (Evalyn Knight Professor of Engineering)

Jayathi Y. Murthy, PhD, Dean

Laurent G. Pillet, PhD

Jacob Rosen, PhD
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 Engineering BS

Capstone Major

The Mechanical Engineering program is designed to provide basic knowledge in thermodynamics, fluid mechanics, heat transfer, solid mechanics, mechanical design, dynamics, control, mechanical systems, manufacturing, and materials. The program includes fundamental subjects important to all mechanical engineers.

Learning Outcomes

The Mechanical Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, science, and engineering
- Function as a productive member of a team that considers multiple aspects of an engineering problem
- Design of a system, component, or process to meet desired needs
- Effective oral and written communication
- Identification, formulation, and solution of engineering problems

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A; Mechanical and Aerospace Engineering M20 (or Computer Science 31), 82; Physics 1A, 1B, 1C, 4AL, 4BL.
The Major
Required: Electrical and Computer Engineering 110L, Mechanical and Aerospace Engineering 101, 102, 103, 105A, 105D, 107, 131A or 133A, 156A, 157, 162A, 171A, 183A (or 185B); 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, C156B, 157A, 161A through 161D, 166C, M168, 169A, 171B, 172, 174, 175A, 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; outside study, two hours. Introduction by faculty members and industry lecturers to mechanical and aerospace engineering disciplines through current and emerging applications in aerospace, medical instrumentation, automotive, entertainment, energy, and manufacturing industries. Letter grading.

105A. Introduction to Engineering Thermodynamics. (4 Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20B, Mathematics 32B. Phenomenological thermodynamics. Concepts of equilibrium, temperature, and reversibility. First law and concept of energy; second law and concept of entropy. Equations of state and thermodynamic properties. Engineering applications of these principles in analysis and design of closed and open systems. Letter grading.

105D. Transport Phenomena. (4 Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 82, 103, 105A. Transport phenomena: heat conductive, convective, and radiative; mass diffusion, convective heat and mass transfer; radiation. Engineering applications in thermal and environmental control. Letter grading.

107. Introduction to Modeling and Analysis of Dynamic Systems. (4 Lecture, four hours; discussion, one hour; laboratory, two hours; outside study, five hours. Enforced requisites: courses M20 or Computer Science 31, 82, Electrical Engineering 100. Introduction to modeling and analysis of dynamic systems, with examples of mechanical, fluid, thermal, and electrical systems. Discussion of these systems with coverage of impulse response, convolution, frequency response, system-identification, and system response, with application to selected engineering systems. Nonlinear differential equation descriptions with discussion of equilibrium solutions, small signal linearization, large signal response. Block diagramming, transfer function and response of interconnections of systems. Hands-on experiments reinforce lecture material. Letter grading.


133A. Engineering Thermodynamics. (4 Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 103, 105A. Applications of thermodynamic principles to engineering processes. Energy conversion systems. Rankine cycle and other cycles, refrigeration, psychrometry, reactive and non-reactive fluid flow systems. Elements of thermodynamic design. Letter grading.

135. Fundamentals of Nuclear Science and Engineering. (4 Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 82, Chemistry 20A. Review of nuclear physics, radioactivity and decay, and radiation interaction with matter. Nuclear fission and fusion processes and mass defect, chain reactions, criticality, neutron diffusion and multiplicity, heat transfer issues, and applications. Introduction to nuclear power plants for commercial electricity production, space power, spacecraft propulsion, nuclear fusion, and nuclear science for medical uses. Letter grading.

136. Energy and Environment. (4 Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 20A. 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.

C137. 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 with solar and wind generation intermittency and correction; microgrids; grid stability; energy storage; and electric vehicles-simulation; monitoring; distribution and transmission grids; consumer-centric technologies; sensors, communications, and computing; wireless, wireline, and powerline communications for
smart grids; grid modeling, stability, and control; frequency and voltage regulation; ancillary services; wide-area situational awareness, phasor measurements; analytical methods and tools for monitoring and control. Concurrently scheduled with course C2537. Letter grading.

CM140. Introduction to Biomechanics. (4) (Same as Bioengineering CM140.) Lecture, four hours; discussion, two hours; outside study, six hours. Required courses: courses 101, 102, and 156A or 166A. Introduction to functional models of structural mechanics in cells. Structure of macromolecules, polymers as entropic springs, random walks and diffusion, mechanosensitive proteins, single-molecule force-extension, DNA packaging and regulation, lipid bilayers, membranes, mechanisms of cytoskeleton, molecular motors, biological electricity, muscle mechanics, pattern formation. 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 models of structural mechanics in cells. 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 low-speed aircraft. Letter grading.


154S. Flight Mechanics, Stability, and Control of Aircraft. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Required courses: courses 150A, 158B. 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 Aerospace Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Required course: course 102. Axioms of Newtonian mechanics, generalized coordinates, Lagrange equation, variational principles; computer-aided design, analytic dynamics 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, one hour; outside study, six hours. Required courses: courses 102, 101. Not open to students with credit for course 166A. Concepts of stress, strain, and material behavior. Stresses in loaded structures. Bending and extension of plate and shell structures. Introduction to computer-aided design (CAD) (and finite element analysis (FEA)). Letter grading. Letter grading.

156B. Mechanical Design for Power Transmission. (4) Lecture, four hours; outside study, eight hours. Required course: 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 and design involve 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, eight hours; outside study, four hours. Required courses: courses 102, 101, 103, 105A, Electrical Engineering 100. Methods of measurement of basic quantities and performance of basic experiments in fluid mechanics, structures, and thermodynamics. Primary sensors, transducers, recording equipment, signal processing, and data analysis. Letter grading.

157A. Aerospace Design Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Required courses: 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. Required courses: courses 102, 105B. Spaceship, flight, including two-body and three-body problems, Kepler's laws, and Keplerian orbits. Ground track and taxonomy of common orbits. Orbital and transfer maneuvers, patched conics, perturbation theory, low-thrust trajectories, spacecraft pointing, and spacecraft attitude control. Space mission design, space environment, rendezvous, reentry, and launch. Letter grading.

161B. Introduction to Space Technology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. The history of space technology, an overview of 161A. Spacecraft systems and dynamics, including spacecraft power, instruments, communications, structures, materials, thermal control, and attitude/orbit determination and control. Space mission design, launch vehicles/constellation, space propulsion. Letter grading.

161C. Spacecraft Design. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 161B. Design and operation of low Earth-orbiting or interplanetary space missions and spacecraft. Students work in groups of three or four, with each student responsible primarily for one subsystem and for integration with whole. Letter grading.

161D. Space Technology Hardware Design. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisite: course 161B. Design by students of hardware with applications to space technology. Designs are then built by HSSEAS professional mobile shop and tested by students. Letter grading.

162A. Introduction to Mechanisms and Mechanosystems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses M20 (or Computer Science 31), 102. Analysis and synthesis of mechanisms and mechanical systems. Kinematics, dynamics, design of dynamic system and for integration with whole. Letter grading.

162B. Mechanical Engineering Design II. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisites: courses 94, 156A (or 183A or M138B), 162A (or 171A). Limited to seniors. First of two term mechanical engineering design courses. Students design and build elements of machinery. Displacement velocity and acceleration analyses of linkages. Fundamental law of gearing and various gear trains. Computer-aided design and analysis of mechanisms. Letter grading.

162C. Mechanical Engineering Design II Lab. (4) Lecture, two hours; laboratory, two hours; outside study, two hours. Enforced requisite: course 162B. Limited to seniors. Second of two mechanical engineering capstone design courses. Students construct group design projects which involve CAD design laboratory, CAD analysis laboratory, and mechatronics laboratory. Design theory, design tools, economics, market, manufacturability, quality, integration of machinery, design for manufacture and assembly, design for safety and reliability, and engineering ethics. Students conduct hands-on design, fabrication, and testing. Culminating project demonstration or competition. Preparation of design project presentations in both oral and written formats. Letter grading.

166A. Analysis of Aerospace Structures. (4) Lecture, two hours; discussion, two hours; outside study, six hours. Required courses: courses 82, 101. Not open to students with credit for course 156A. Introduction to two-dimensional elasticity, stress-strain laws, yield and plasticity, bending of thin beams; 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. Enforced requisite: course 156A or 166A. History of composites, stress-strain relations for composite materials, bending and extension of symmetric laminates, failure analysis, design examples and design studies, buckling of composite components, non-symmetric laminates, micromechanics of composites. Letter grading.
165. 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 methods (FEM) and applications to structural and solid mechanics and heat transfer. Direct matrix structural analysis; weighted residual, least squares, and Ray approximation methods; shape functions; convergence properties; geometric 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.


171A. Introduction to Feedback and Control Systems: Dynamic Systems Control I. (4) Lecture, four hours; discussion, two hours; 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 theory; 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 experiments. Perturber spectrum models of noise and disturbances, and performance trade-offs imposed by conflicting requirements. Constraints on sensitivity function and complementary sensitivity function imposed by degree of innumerate plants. Lecture topics supported by weekly hands-on laboratory work. Letter grading.

174. Probability and Its Applications to Risk, Reliability, and Quality Control. (4) Lecture, four hours; discussion, two hours; outside study, six hours. 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.


181A. Linear Algebra Analysis and Integral Transforms. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 82. Complex variables, analytic functions, conformal mapping, integral transforms, Laplace transforms, probability, stochastic processes, Brownian motion, Weiner transform: probability, convolution, FFT, applications in dynamics, vibrations, structures, and heat conductivity. Letter grading.


183B. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Bioengineering M153, Chemical Engineering M153, and Electrical and Computer Engineering M153.) Lecture, three hours; laboratory, two hours; outside study, five hours. Enforced requisite: Chemistry 20A, Physics 1A, 1B, 1C, 4A, 4BL. Introduction to general manufacturing methods, mechanical systems, 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 photonics holography technologies, physical and chemical deposition methods, and physical and chemical etching hands. Hands-on experience for fabricating microstructures, and nanostructures in modern cleanroom environment. Letter grading.

183C. 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 manuf acturing 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. In order 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 components. Concurrently scheduled with course C297A. Letter grading.

184. Introduction to Geometry Modeling. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisites: courses M20 (or Civil Engineering M20 or Computer Science 31), 94. Fundamentals of parametric curve and surface modeling, parametric spaces, blending 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 and supply chain of individual components into assembled products, shipping of such products, and eventually use, maintenance, and recycling of such products. Radio frequency identification (RFID) and assembly of components, subassemblies, and assemblies of products allow them to be tracked automatically as they move and transform through manufacturing supply chain. RFID tags have memory that allows information about product status to be written, stored, and transmitted wirelessly. Tags can then be forwarded by reader to enterprise software by way of 250 MHz. W25C (W25Q256) is being utilized in manufacturing, with focus on automotive and aerospace. Letter grading.


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 (assembly) nanofabrication, nanocharacterization (AEM, SEM, etc.), and optical and biochemical sensors. Students are encouraged to create their own experiments and 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, 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) Lecture, three hours; outside study, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. Student presentation of project in research specialty. May be repeated for credit. P/NP or letter grading.

199. Directed Research in Mechanical and Aerospace Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation, under guidance of faculty mentor. Culminating paper or project required. May be repeated with consent of instructor. Letter grades only. Enrolled petition required 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 250A. Conservation equations for flow of real fluids. Analysis of heat transfer in laminar and turbulent, in-
compressible and compressible flows, internal and external flows; free convection. Variable wall temperature; effects of variable fluid properties. Analogies among convective transfer processes. Letter grading.

231B. Radiation Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requisites: 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.

231C. Phase Change Heat Transfer and Two-Phase Flow. (4) Lecture, four hours; outside study, eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced and current study of one and two-phase mass transfer, such as turbulence, stability and transition, buoyancy effects, variational methods, and measurement techniques. May be repeated for credit with topic change. S/U grading.

239G. Special Topics in Nuclear Engineering. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced study in areas of current interest 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.

239H. Special Topics in Physics, Engineering, and Technology. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced focus on fundamental research areas in fusion science and engineering, such as instabilities in burning plasmas, alternate fusion confinement concepts, inertial confinement fusion, fission-fusion hybrid systems, and fusion reactor safety. May be repeated for credit with topic change. S/U grading.

CM240. Introduction to Biomechanics. (4) (Same as Bioengineering CM240.) Lecture, four hours; discussion, two hours. Options: courses 101, 102, and 156A or 166A. Introduction to biomechanics. Laboratory simulations and tests. Concurrently scheduled with course CM140. Letter grading.

CM241. Mechanics of Cells. (4) (Same as Bioengineering CM241.) Lecture, four hours; discussion, two hours. Option: courses 101, 102, and 156A or 166A. 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. Course intended for graduate students in the biological sciences. Laboratory simulations and tests. Concurrently scheduled with course CM141. Letter grading.

242. Introduction to Multifluidic Materials. (4) Lecture, four hours; outside study, eight hours. Overview of different types of multifluidic devices, including strain mediated. Basic crystal structure of single-phase multilayered, as well as fundamentals underlying ferroelectricity and ferromagnetism. Material design, from first to first principles. Designed for graduate students in mathematics, physics, and biology. 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. Requisites: courses 150A, 150B. Effects of compressibility in viscous and inviscid flows. Steady and unsteady incompressible and supersonic flows; method of characteristics; small disturbance theories (linearized and hypersonic); shock dynamics. Letter grading.


250E. Spectral Methods in Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 182B, 182C, 250A, 250C. Introduction to basic spectral techniques of various spectral methods applied to solving partial differential equations. Particular emphasis on techniques of solving unsteady three-dimensional Navier/Stokes equations. Topics include discretization of equations, 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 acoustic locomotion; insect and bird flight aerodynamics; pulsatile flow in circulatory system; rheology of blood; and 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. Fundamentals of fluid dynamics. Overview of the various flow regimes that occur in microfluidic systems. Introduction to the emergent behavior that can be observed. Letter grading.

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 C150P. 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 stratification instability; secondary layer instability; 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. Course 250C. Basic concepts in chemical kinetics: molecular collisions, distribution functions and averaging, semiequilibrium 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. Requisites: 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 electromagnetic arc. Letter grading.


25G. Advanced Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 255A, 265A. An introduction to the fundamentals of classical thermodynamics as applied to processes, properties, thermodynamic systems, and the like. Letter grading.

261B. Finite Element Analysis for Solids and Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course 265B, 261A. Application of finite element 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 prerequisite: course 166C. Constitutive relations for electro-magneto-mechanical materials. Failure, sensor technology, damage identification, analysis, and monitoring, 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 biomorphic. Letter grading.

263A. Kinematics of Robotic Systems. (4) Lecture, four hours; outside study, eight hours. Recommended prerequisites: courses 155, 171A. Kinematical models of serial robotic manipulators and their descriptions and transformations (Euler angles, Denavit-Hartenberg/DH parameters, equivalent angle vector), frame assignment procedures, 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 prerequisite: course 263A. Recommended: course 255B. Dynamics models of serial and parallel robotic manipulators, including review of spatial descriptions and transformations along with direct and inverse kinematics, Lagrange-Eulerian formulation, Jacobian matrix (velocity and force), velocity propagation method, force propagation method, explicit formulation of Jacobian matrix, manipulator dynamics (Newton/Euler-Lagrange formulation), trajectory generation, introduction to parallel manipulators. Letter grading.

263C. Control of Robotic Systems. (4) Lecture, four hours; outside study, eight hours. Enforced prerequisite: course 263B. Sensors, actuators, and control schemes for robotic systems, including computed torque control, linear feedback control, and force feedback control, and advanced control techniques for nonlinear systems, 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 prerequisite: course 263C. Current and advanced topics in robotics and control, including kinematics, dynamics, control, mechanical design, advanced sensors and actuators, flexible links, manipulability, redundant manipulators, human-robot interaction, teleoperation, haptics. Letter grading.

M269A. Nonlinear Elasticity. (4) Same as Civil Engineering M230B.) Lecture, four hours; outside study, eight hours. Requisite: course 156A or 166A. Kinematics of deformation, material and spatial coordinates, deformation gradient tensor, nonlinear and linear strain tensors, strain displacement relations; balance laws; Cauchy and Piola stresses, Cauchy equations of motion, balance of energy, stored energy; constitutive relations, elasticity, hyperelasticity, thermoelasticity; linearization of field equations; solution of selected problems. Letter grading.


269D. Aeroelastic Effects in Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course 269B. 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 141. 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; state equations via state feedback, 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 Electrical and Computer Engineering 252A. 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.

M270C. Control Systems Engineering. (Same as Chemical Engineering M280C and Electrical and Computer Engineering M240C.) Lecture, four hours; outside study, eight hours. Requisite: course 270B. Applications of variational methods, Pontryagin maximum principle, Hamilton/Jacobi/Bellman equation (dynamic programming) to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. Letter grading.

C271A. Probability and Stochastic Processes in Dynamical Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 107. Probability spaces, random variables, stochastic processes, conditional expectation, Gaussian/Markov sequences, and minimum variance estimator (Kalman filter) with applications. Concurrently scheduled with course C175A. Letter grading.

271B. Stochastic Estimation. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course C271A. Linear and nonlinear estimation theory, orthogonal projection lemma, Bayesian filtering theory, 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 conversion to continuous-time models. Models identified including transfer functions and state-space models. Discussion of applications in mechanical and aerospace engineering, including identification of flexible structures, microelectromechanical systems (MEMS) devices, and microelectronics. Letter grading.

M276. Dynamic Programming. (4) (Same as Electrical and Computer Engineering M237.) Lecture, four hours; outside study, eight hours. Recommended requisite: Electrical and Computer Engineering 232A or 232B. Introduction to mathematical programming and the Bellman equation (dynamic programming) to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. 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 controllers, 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 axons, neural oscillator, 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 processes, as well as their combination in process integration. Materials issues such as chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

281. Microsystems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 102, 103, 105D. Fundamental issues of being in microscopic world and mechanical engineering of microscale devices. Topics include scale issues, surface tension, superhydrophobic surfaces and applications, and electroetting and applications. Letter grading.

M282. Microelectromechanical Systems (MEMS) Device Physics and Design. (4) (Same as Bioengineering M282 and Electrical and Computer Engineering M282.) 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. Relationship of free and interfacial energies to interfacial phenomena. Derivation of fundamental physical phenomena occurring at interfaces and application of their knowledge to engineering problems. Fundamental concepts of interfacial phenomena, including surface tension, surfactants, interfacial thermodynamics, interfacial forces, interfacial hydrodynamics, and dynamics of triple line. Presentation of various applications, including wetting, change of phase (boiling and condensation), forms and emulsions, microelectromechanical systems, and biological systems. Letter grading.


M287. Nanoscience and Technology. (4) (Same as Electrical and Computer Engineering M252.) Lecture, four hours; outside study, eight hours. Introduction to fundamentals of nanoscience and technology. Basic principles, such as their combination in process integration. Materials science and engineering of chemical bonding and nanostructures, top-down and bottom-up (self-assembly) nanofabrication; nanocharacterization; nanomaterials, nanoelectronics, and nanobiotechnology and nanoscale applications. New knowledge and techniques in nano areas to understand scientific principles behind nanotechnology and inspire students to create new ideas in multidisciplinary nano areas. Letter grading.

C287L. Nanoscale Fabrication, Characterization, and Biodetection Laboratory. (4) Lecture, two hours; laboratory, three hours; outside study, seven hours. Multidisciplinary course that introduces laborto communication, design and characterizations 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 and detection; and nano and 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 microfabrication of advanced materials, including semiconductors, metals, and insulators. Topics include fundamentals in laser interactions with advanced materials, transport issues (therma, mass, chemical, electrical), etc. Introduction to 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 constraint-based design, process geometries, screw theory, kinematics, and freedom and constraint topologies. Applications: precision motion stages, general purpose flexure bearings, microstructural architectures, MEMS, optical mounts, and nanoscale positioning systems. Hands-on exercises include build-your-own flexure kits, CAD and FEA simulations, and term project. 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. Failure due to stress. Fatigue failure. Design for safety factors and reliability. Applications of failure prevention in design of power transmission shafting. Design project involving computer-aided design (CAD) and finite element analysis (FEA) 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. Development of heat-resistant materials. Design of turbine components. Stress analysis due to thermal gradients. Applications of current high-temperature components such as turbine blades, pressure vessels, heat exchangers, connecting rods. Design project involving CAD and FEM modeling. 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, autolave/compression molding, filament windling, 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 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 completion, successful instructional associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours. Preparation: appointment as teaching assistant in department. Seminar on communication of mechanical and aerospace engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of virtual aids; grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 6) Tutorial, to be arranged. Limited to graduate mechanical and aerospace 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 mechanical and aerospace engineering students. Preparation for oral qualifying examination, inclusive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (3 to 12) 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. (3 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.

596. 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 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

Medicine

Lower-Division Courses

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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

M160A. Health Outreach and Education for At-Risk Populations. (4) (Same as Public Health 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 Public Health M160B.) Lecture, two hours; discussion, two hours. Requisite: course M160A. Second in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, discussion groups, and field activities including health education. P/NP or letter grading.

160C. Health Outreach and Education at At-Risk Populations. (4) Seminar, two hours; fieldwork, six to eight hours. Requisites: courses M160A, M160B. Processes involved with designing, delivering, and assessing community health education programs, under supervision of professional staff. P/NP or letter grading.

180. Special Topics in Medicine. (4) Lecture, four hours; discussion, one hour. Medical topics of special interest to undergraduate students. Specific subjects may vary each term depending on particular interest of instructors and students. Topics may include East/West medicine and global medicine. May be repeated for credit with topic or instructor change. P/NP or letter grading.

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

Graduate Courses


M256. Interdisciplinary Response to Infectious Disease Emergencies: Medicine Perspective. (4) (Same as Community Health Sciences M256, Nursing M296, and Oral Biology M256) Lecture, three hours; discussion, one hour. Designed to instill in professional students ideas of common emergency health problems and coordinated response, with specific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Classroom seminars, case studies, and also attended by students in Schools of Dentistry, Nursing, and Public Health during weeks two through five. Letter grading.

M260A-M260B. Methodology in Clinical Research I, II. (4–4) (Same as Biostatistics M260A-M260B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Requisites: Biostatistics 170A, 265A. Course M260A is requisite to M260B. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics, S/U or letter grading.

M260C. Methodology in Clinical Research III. (4) (Same as Biostatistics M260C) Discussion, four hours. Recommended preparation: MD, PhD, or dental degree. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics, S/U or letter grading.

M261. Responsible Conduct of Research Involving Humans. (2) (Same as Biostatistics M261.) Lecture, two hours; discussion, two hours. Preparation: completion of one basic course in protection of human research subjects through Collaborative Institutional Training Initiative. Discussion of current issues in responsible conduct of clinical research, including reporting of research, basis for authorship, issues in genetic research, principles and practice of research on humans, conflicts of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M263. Clinical Pharmacology. (2) (Same as Biostatistics 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, Biomedical M270, and Computer Science M296B.) Lecture, four hours; outside study, eight hours. Requisite: course M270C or Bioengineering CM296B or Biomedical M220. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with special focus on optimal sampling schedule design for kinetic models. Exploration of PC software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

M270E. Advanced Topics and Research in Biomedical Systems Modeling and Computing. (4) (Same as Bioengineering M296C and Computer Science M296C) Lecture, four hours; outside study, eight hours. Requisite: course M270D. Research techniques and experience on special topics involving models, modeling methods, and model/computing in biological and medical sciences. Review and critique of literature. Research problem searching and formulation. Approaches to solutions. Individual MS- and PhD-level project training. Letter grading.


Microbiology, IMMUNOLOGY, AND MOLECULAR GENETICS

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Adjunct Associate Professor
Imke Schroeder, PhD
Adjunct Assistant Professors
Jordan P. Moberg-Parker, PhD
Erin R. Sanders, PhD

Scope and Objectives
Microbiology at UCLA is a diverse science that includes bacteriology, virology, immunology, genetics, molecular biology, and the study of single cells. The science has its roots in the fundamental human needs of health, nutrition, and environmental control, and it provides students with opportunities for study in the basic biological fields of genetics and cellular and molecular biology.

Undergraduate students majoring in Microbiology, Immunology, and Molecular Genetics prepare for careers in biomedical research, medicine, dentistry, or other health professions, bio-technology and genetic engineering, industrial microbiology, agricultural or environmental sciences, public health, and law or bioethics, among others. The courses presented by the department lead to a Bachelor of Science degree and depend heavily on preparation in the biological sciences, chemistry, physics, and mathematics.

The graduate program emphasizes the areas of molecular genetics, cell biology, immunology, and molecular genetics at all levels of education and training in independent study and research for graduate students.

Undergraduate Study
Microbiology, Immunology, and Molecular Genetics BS

Learning Outcomes
The Microbiology, Immunology, and Molecular Genetics major has the following learning outcomes:

• Demonstrated knowledge of key disciplinary concepts
• Address scientific questions or solve problems using quantitative, computational, and inquiry-related skills, including developing hypotheses, designing and performing experiments, analyzing data, and interpreting results
• Execution of database searches for scientific literature and bioinformatics data related to investigative 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, 40, 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, C185A, (2) two courses from one of the following groups: (a) Microbiology, Immunology, and Molecular Genetics 103AL and 103BL or (b) 109AL and 109BL, (3) two focus elective courses selected from Chemistry and Biochemistry 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 item 3 above. Bioengineering 100, CM145, CM178, Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 136, 140, 153B, 153C, 153L, 154, 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 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, Neurosciences 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, C185A, (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, 140, 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, Neurosciences 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 the major. Students receiving a grade of D or below in two major courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Honors Program

Overall grade-point averages of 3.2 and 3.5 in the preparation for the major and major respectively are required to apply for departmental honors. In addition students must have junior standing and the sponsorship of a faculty adviser from the department. The core of the program consists of Microbiology, Immunology, and Molecular Genetics 198A, 198B, and 198C research, culminating in a thesis. If the thesis is accepted by the honors committee and students complete all major requirements with a GPA of at least 3.5, they are awarded the bachelor’s degree with departmental honors. The department also offers an honors seminar course each winter quarter that is required for the honors program. For more information, contact the Student Affairs Office, 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 to credit for 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 symptoms, diseases and infection caused by microbial infections. Letter grading.

15. Nanoscale Microscopy Laboratory Lecture, 26 hours; laboratory, nine hours. Reconstruction techniques: high school biology, chemistry, and physics. Designed as one-quarter summer course for high school students. Exploratory introduction to three key microscopy technologies: 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. 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.

B9. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed to elicit from 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 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

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. Experimental techniques of microbiology, with emphasis on cultivation and characterization of bacteria. Laboratory exercises include light microscopy, quantitative techniques, and identification methods. Students team to work effectively in groups to perform experiments, record observations, and analyze results. Letter grading.

101. Introductory Microbiology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L. Historical foundations of microbiology; introduction to bacterial structure, physiology, biochemistry, genetics, and ecology. Letter grading.

102. Introductory Virology. (4) Lecture, three hours; discussion, one hour. Requisites: 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 Virology. (5) Lecture, two and one half hours; laboratory, eight hours. Requisites: course 101, Life Sciences 3, 4, 23L. Course 103AL is enforced requisite to 103BL. Limited to Microbiology, Immunology, and Molecular Genetics and Molecular, Cell, and Developmental Biology majors. Research-oriented laboratory experience designed to promote discovery of novel bacterial viruses (phages). Working in teams, students conduct research projects that incorporate techniques in microbiology, virology, and molecular biology and involve use of bioinformatics tools and computational analysis software. Emphasis on reading and understanding scientific literature as well as improving critical thinking, problem solving, and communication skills such as ability to evaluate hypotheses or experimentally address scientific questions. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenship, mechanics of scientific writing, and project responsibilities and ownership. Letter grading.

103BL. Advanced Research Analysis in Virology. (4) Lecture, four hours. Enforced requisites: course 103AL, Statistics 13. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors. Designed to provide students authentic, discovery-based research experience in life sciences. 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 prepare figures and illustrations for presentations, reports, and websites (database entries). Research accomplishments discussed in weekly seminar-style meetings in which student groups create PowerPoint slides and formally present results to class. Production of team poster and final report describing entire research project required. Letter grading.

105. Biological Microscopy. (4) Lecture, four hours; laboratory, three hours (five weeks only). Requisites: corequisites: Physics 1C or 6C. Introduction to modern microscopy technologies used in biochemistry, medicine, 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 microscopy; transmission electron microscopy, electron tomography, and three-dimensional reconstruction; atomic force microscopy; and atomic force and other scanning probe microscopy modalities. Practical experience in research provided through five carefully designed electron microscopy laboratory modules. P/NP or letter grading.

106. Molecular and Genetic Basis of Bacterial Infections. (4) Lecture, three hours; discussion, one hour. Requisites: course 101, Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L. Course 109AL is enforced requisite to 109BL. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors and Molecular, Cell, and Developmental Biology majors. Research-oriented laboratory experience designed to promote discovery of novel microorganisms. Working in teams, students conduct research projects that incorporate techniques in microbiology and molecular biology and involve use of bioinformatics tools and phylogenetics software for data analysis. Emphasis on reading and understanding scientific literature as well as improving critical thinking skills such as ability to create and evaluate hypotheses or experimentally address scientific questions. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenship, mechanics of scientific writing, and project responsibilities and ownership. Letter grading.

109AL. Research Immersion Laboratory in Microbiology. (5) Lecture, three hours; laboratory, eight hours. Requisites: course 101, Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L. Course 109AL is enforced requisite to 109BL. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors and Molecular, Cell, and Developmental Biology majors. Research-oriented laboratory experience designed to promote discovery of novel microorganisms. Working in teams, students conduct research projects that incorporate techniques in microbiology and molecular biology and involve use of bioinformatics tools and computational analysis software. Emphasis on reading and understanding scientific literature as well as improving critical thinking, problem solving, and communication skills such as ability to evaluate hypotheses or experimentally address scientific questions. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenship, mechanics of scientific writing, and project responsibilities and ownership. Letter grading.
109AL. 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 sciences. Investigation to be primarily computational in nature whereby students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Students are accountable for preparing course notebooks and illustrations for presentations, posters, reports, and websites (database entries). Research accomplishments discussed in weekly seminar-style meetings in which students will create PowerPoint slides and formally present results to class. Production of team poster and final report describing entire research project required. Letter grading.

C122. Mouse Molecular Genetics. (2) Seminar, two hours. Requisite: Life Sciences 4, or 7A, 7B, and 7C. Designed for students doing research with mice. During past 25 years, molecular revolution has greatly increased power and scope of animal genetics, and today mouse is primary experimental model in virtually all fields of biology and biomedicine. Seminar forum for in-depth discussion of tools and technologies and their applications to animal genetics, complex traits, stem cell biology, developmental biology, epigenetics, and genetic dissection of diseases. Concurrently scheduled with course C222L.

123. Advanced Annotation and Comparative Genomics. (4) Lecture, two and one half hours; computer laboratory, six hours. Requisite: course 103AL or Molecular, Cell, and Developmental Biology 187AL with grade of B or better. Participation in course depends on basic knowledge of bioinformatics. Hands-on small group laboratory experience to analyze microbial genomes using bioinformatics techniques involving variety of online databases. Investigation of cellular pathways and structures as means to discover novel genes and unusual variations in classical systems. Results of high-quality annotation efforts may lead to publication in peer-reviewed scientific journals. Exposure to DOE Joint Genome Institute Undergraduate Research in Microbial Genome Annotation education program. Offered in summer only. Letter grading.


C134. Ethics and Accountability in Biomedical Research. (2) Seminar, two hours. Designed for graduate students and undergraduates who have credit for life sciences or related individual study (course 199 course). Responsibilities and ethical conduct of investigators in research, data management, mentorship, grant applications, and publications. Responsibilities to peers, sponsoring institutions, and society. Conflicts of interest, disclosure, animal subject welfare, human subject protection, and areas in which investigational goals and certain societal values may conflict. Concurrrently 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 genetic principles in human populations, with emphasis on genomics, family studies, positional cloning. Mendelian and common diseases, cancer genetics, animal models, and human experience with transgenetics, population genomics, and genetic counseling. Lectures and readings in literature, with focus on current questions in fields of medical and human genetics and methodologies appropriate for addressing such questions. Concurrently scheduled with course CM256. Letter grading.

158. Microbial Genomics. (4) Lecture, three hours; discussion, one hour. Requisites: course 156, Chemistry 135A. Evolution, biodiversity, and sequencing of genomes; bacterial and viral genomes; bioenergetics; gene knockouts; genomics of antibiotic resistance; proteomics; Guest lectures 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 protozoa and helminths, but also as model systems for analysis of basic biological phenomena such as gene regulation, molecular development, cell-cell interactions, molecular evolution, and novel biochemical processes. 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 advancements in genetics and host-parasite relationship. Specific topics include parasite development, antigenic variation in trypanosomes, 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 using relevant primary literature. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenry, mechanics of scientific writing, diverse approaches to research, and project responsibilities. Preparation of in-depth and broad knowledge about student research projects, improvement of oral and written communication skills, and full appreciation of process of doing good science, and becoming skilled researchers. Letter grading.

180B. Scientific Analysis and Communication II. (2) Seminar, two hours. Enforced requisites: 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 approaches, results, and conclusions. How to write research papers and present scientific posters. Production of deliverables that demonstrate research achievements and creation of sense of pride for work accomplished as skilled researchers. Letter grading.

C185A. Immunology. (5) (Formerly numbered 185A.) Lecture, three hours; discussion, 90 minutes. Requisites: Chemistry 135A, 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 reaction; 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 immune reactions to bacterial and viral infections, and balance required between immune and inflammatory responses. Discussion of various strategies to enhance our immune system against invasion by pathogens or cancer cells without triggering inflammatory and autoimmune diseases, including new cancer immunotherapies. 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. Requisites: 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. Limitations: Designated as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individually supervised with faculty to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191H. Honors Research Seminars: Microbiology, Immunology, and Molecular Genetics. (2) Seminar, tutorial, or research course. Requisites: course 191A or 198B or 198C. Limited to senior microbology, immunology, and molecular genetics honors program students. 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 current literature associated with it required. May be repeated for credit. P/NP or letter grading.

192. Undergraduate Practicum in Microbiology, Immunology, and Molecular Genetics. (2) Seminar, six hours. Limited to junior/senior departmental majors. Training and supervised practicum for advanced undergraduate program students. Students assist in preparation of materials and development of innovative programs under guidance of faculty members in small course settings. Consult Student Affairs Office for further information. May be repeated for credit. May fulfill course requirements for departmental majors. May be repeated for credit. P/NP or letter grading.

193A. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature in microbiology, immunology, and molecular genetics field. P/NP grading.

193B. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature in microbiology, 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 laboratory. 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) Seminar, one hour. Limited to students in UC LEADS and NIH/MARC programs. Analysis, review, and critique of current papers in biomedical sciences disciplines, using skills necessary for effective 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 major and/or major grade-point average, and at least one term of prior experience in same laboratory in which 196A research is to be conducted. Enforced corequisite: course 180A. Course 196A is enforced requisite to 196B. Designed for undergraduate students who are interested in pursuing inquiry-based and hypothesis-driven research experience in laboratory of departmental faculty mentor. Guided research course to be taken in conjunction with course 196A, followed by continuation research course 196B. May be repeated for credit depending on specific laboratory; however, all students learn how to apply scientific method: propose hypothesis, identify experiments to address hypothesis, perform experiments, analyze results, and write scientific papers. May not record information from experimental activity into laboratory notebooks and write to research proposals. Letter grading.

Microbiology, Immunology, and Molecular Genetics / 543
Survival. Topics include pathogenesis of common vi-
karyotic host cells that result in disease or pathogen 
ular mechanisms of microbial interactions with eu-
sites: Molecular Biology 254A through 254D. Molec-
two hours; discussion, two hours. Enforced requi-
26A-262B-262C. Seminars: Current Topics in Im-
munobiology of Cancer. (2–2–2) Seminar, two hours. 
Designed for graduate students (or undergraduate 
students with consent of instructor). Review of recent 
literature in immunology, biology, and biochemistry 
of cancer, with emphasis on fundamental studies in-
volved cell-mediated immunity, humoral response, 
tumor specific antigens, and new techniques. Discus-
sion of reports on scientific meetings. Each course 
may be repeated for credit. S/U or letter grading.

C256. Immunology. (3) Lecture, three hours; discus-
sion, 90 minutes. Requisites: Chemistry 133A, Life 
Sciences 3, 4, and 23L, or 7A, 7B, 7C, and 23L. Not 
open for credit to students with credit for course 251. 
Comprehensive study of experimental immunobi-
ology and immunochemistry; cellular and molecular 
aspects of humoral and cellular immune reactions. 
Concurrently scheduled with course C185A. Letter 
grading.

298. Current Topics in Microbiology, Immunology, 
and Molecular Genetics. (2) Seminar, two hours. 
Presentation of student oral critiques and participa-
tion in discussions on assigned topics. May be re-
peated for credit. S/U grading.

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

495A. Preparation for Teaching Microbiology in 
Higher Education I. (2) Seminar, two hours. De-
signed for graduate students. Study of problems and 
methodologies in teaching microbiology, including 
workshops, seminars, apprentice teaching, and peer 
observation. S/U grading.

495B. Preparation for Teaching Microbiology in 
Higher Education II. (1) Seminar, one hour. Requi-
site or corequisite: course 495A. Designed for first-
time teaching assistants and to be taken in term in 
which they teach. In odd weeks, discussion of de-
velopments in student classes, with instruction on digital 
pedagogy and evaluation of student teaching. In even 
weeks, participation in online discussion forum case 
study discussions. S/U grading.

599. Research for PhD Dissertation. (2 to 12) Tuto-
rial, to be arranged. S/U grading.

MILITARY SCIENCE – ARMY ROTC

Graduate Courses

C222. Mouse Molecular Genetics, (2) Seminar, two 
hours. Requisites: Life Sciences 4, or 7A, 7B, and 7C. 
Designed for students doing research with mice. 
During past 25 years, molecular revolution has greatly 
increased power and scope of mouse genetics, and 
today mouse is primary experimental model in virtu-
ally all fields of biology and biomedicine. Seminar 
forum for discussion, critique of design of methods and 
tools of mouse genetics and their application to func-
tional genomics, complex traits, stem cell biology, 
developmental biology, epigenetics, and genetic dissec-
tion of diseases. Corequisite: scheduled with course 
C222. S/U or letter grading.

C234. Ethics and Accountability in Biomedical Re-
search, (2) Seminar, two hours. Designed for gradu-
ate students and undergraduates who have credit 
for life sciences or biomedical individual studies 199 
course. Responsibilities and ethical conduct of inves-
tigators in research, data management, mentorship, 
grant applications, responsibilities to peers, sponsoring 
institutions, and society. Conflicts of interest, disclosure, 
animal subject welfare, human subject protection, and 
areas in which institutional and professional guidelines 
cancel out ethics or conflict with personal values. 
Corequisites: concurrently scheduled with course 
C134. S/U grading.

CM256. Human Genetics and Genomics, (5) Same 
as Molecular Cell and Developmental Biology 
CM256.) Lecture, three hours; discussion, two hours.
cially. 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.

Additionally, students who decide to become Army officers can receive summer training in military parachuting (Airborne School at Fort Benning, GA), helicopter operations that include rappelling from a hovering helicopter (Air Assault School in Hawaii), and mountaineering operations (Northern Warfare School in Alaska).

Scholarships are available for two, three, and four years of academic study and are awarded on a competitive basis. Army scholarships pay for full tuition and mandatory fees or housing, up to $10,000, and provide a 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.

Undergraduate Study

Students aspiring to become Army officers follow prescribed course sequences with the Military Science Department and a physical fitness program. Generally, the courses consist of one 2- to 4-unit course per term and physical fitness sessions one to three times per week, depending on the participation-level requirements.

The military science curriculum is divided into two parts: (1) the Basic Course, two years of lower-division study during which students must complete six military science courses, and (2) the Advanced Course, two years of upper-division study consisting of six military science courses, one military history course, and a five-week summer camp.

Army ROTC students must satisfy the military history requirement by completing Military Science 110 or another history course approved by the chair. Transfer students and others who were unable to enroll in the Basic Course can receive equivalent credit in several different ways (see Two-Year Program below).

Admission to the Advanced Course is limited to selected students who meet all academic and physical requirements. Students in this course receive a subsistence allowance 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 schooljunior 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 department. Designed to allow cadets to apply leadership techniques and military skills taught in classroom and to develop their confidence as future military officers. No grading.

11. Foundations of Officership. (2) Lecture, one hour. Introduction to issues and competencies that are central to commissioned officer’s responsibilities. Framework established to understand officership, leadership, military customs, briefings, and life skills such as physical fitness, nutrition, and time management. P/NP or letter grading.

12. Basic Military Leadership. (2) Lecture, one hour. Requisite: course 11. Introduction to fundamentals of leadership, Army leadership values, ethics, and counseling techniques. Foundation of basic leadership fundamentals central to commissioned officer’s responsibilities established. P/NP or letter grading.


19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics 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 Officerhip and Communication. (4) Lecture, three hours; laboratory, four hours. Examination of leadership, and survey of Army leadership development process used to evaluate leadership skills, and developmental opportunities. Assessment of organizational culture and ethical climate. 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 prepare students for professional careers. 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. Officerhip: 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.

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 therapeutic approaches.

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 selection committee in order to qualify.

The department, together with the Division of Laboratory, 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 – 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students may enroll 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). Designed for 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 of forensic interest. Letters: grading.

110B. Drugs: Mechanisms, Uses, and Misuse. (4) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: course M110A. Life Sciences 2, 3. Introduction to pharmacology for undergraduate students, emphasizing principles 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.

199. Directed Research in Molecular and Medical Pharmacology. (2 to 8) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised research under guidance of faculty mentor. Special studies in pharmacology, including either reading assignments or laboratory work or both, designed for proper training of students. Culuminating project or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Introduction to Laboratory Research. (8 Laboratory, two hours; seminar, two hours; four hours. Preparation: satisfactory performance in undergraduate laboratory courses or consent of instructor. Introduction to senior laboratory research for beginning graduate students. At the end of each term students submit to their supervisor reports covering research performed. Pharmacology graduate students must take this course three times during their first two years in residence. Letter grading.

203. Medical Pharmacology. (2) Lecture, zero to two hours; discussion, zero to two hours. Requisites: courses 211A, 211B. Series of lectures and case presentations designed to illustrate principles of pharmacology in a clinical context, and solution of practical therapeutics by reference to pharmacokinetics, mechanisms of action, and disposition of drugs. S/U or letter grading.

205A. Introduction to Chemistry of Biology. (4) (Same as Chemistry CM205A) Lecture, three hours; discussion, one hour. Introduction to chemical biology. Topics include computational chemical biology, utility of synthesis in biochemical research, peptidomimetics, designed reagents for cellular imaging, natural product biosynthesis, protein engineering and directed evolution, cell biology of metal ions, and metal ions in cells, metal-containing drugs. Letter grading.

205B. Issues on Chemistry/Biology Interface. (2) (Same as Chemistry CM205B) Seminar, one hour. Preparation: course 205A. Selected talks and papers presented by training faculty on solving problems and utilizing tools in chemistry and molecular biology on chemistry/biology interface (CBI), S/U grading.

211A-211B. Principles of Pharmacology. (4 to 6) Lecture, three to eight hours; discussion, zero to nine hours. Preparation: organic and inorganic chemistry. Supplementation of topics covered in course 203. Primarily for graduate students. S/U or 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 organinal, tissue, cellular, and molecular levels, with emphasis on receptors, receptor/effector coupling, neurotransmission, pharamacology of autonomic and central nervous system pharmacology. Letter grading.

2541. Introduction to Pharmaceutical Biotechnology. (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) Review 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 toxin and the range of pathologic changes that occur in these tissues (liver, bladder, lung, kidney, immune system, and vascular system). S/U or letter grading.

281. Institute for Molecular Medicine Seminar Series: Analysis and Discussion. (2 Seminar, one hour. Corequisite: course 281. 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 an excellent speaker. Students host lunches with seminar speakers, lead discussions to deconstruct all aspects of seminar presentations, and submit write-ups for online 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. Designed for graduate students (undergraduate students may enroll with consent of instructor). Introduction to principles of business and entrepreneurship in technology sectors. Basic business skills taught to effectively perform in environment and within academic environment. Application of course material by performing feasibility studies that have potential to receive funding and become actual companies. Exploration of entrepreneurship, particularly formation and operation of new business ventures. Presentations by and questioning of successful technology entrepreneurs, identifying and evaluating new venture opportunities, development of financing, and entry and exit strategies. S/U or letter grading.

288. Gene Therapy. (4 Lecture, three hours; discussion, one hour. Introduction to basic concepts of gene therapy, wherein treatment of human disease is based on transfer of genetic material into an individual. Discussion of molecular basis of disease, gene delivery vectors, and animal models. Letter grading.

291. Special Topics in Pharmacology. (4 Lecture, four hours. Examination in depth of topics of current importance in pharmacology. Emphasis on recent contributions of special interest to advanced PhD candidates and faculty. Letter grading.

292. Research Projects, Proposals, and Presentations. (6 Lecture, four hours; discussion, four hours. Limited to departmental majors. Introduction to format and requirements of research proposals, so students can critically read primary papers and give formal scientific presentations, ask new questions, formulate new hypotheses, and construct research projects, understand balance of importance, novelty, and
and feasibility, and develop ability to think independently, creatively, and comprehensively. Letter grading.

293. Nitric Oxide Chemistry, Biochemistry, and Physiology. (2 or 4) Lecture, two or four hours. Basic chemistry, biochemistry, and physiology of nitric oxide and related species, with emphasis on understanding novel mechanisms of nitrogen oxide function as both a physiological and pathophysiological agent/messenger. S/U or letter grading.

298. Seminar: Current Topics in Molecular and Medical Pharmacology. (2) Limited to pharmacology, ACCESS program, and interdepartmental Molecular Biology PhD program students. Students conduct or participate in discussions on assigned topics. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


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M. Luisa Iruela-Arispe, PhD (Molecular, Cell, and Developmental Biology)
Jeffrey A. Long, PhD (Molecular, Cell, and Developmental Biology)

Scope and Objectives
The PhD in Molecular Biology is offered under the supervision of an interdepartmental committee. The Molecular Biology Institute serves this committee and the various departments concerned in support of faculty research and teaching associated with the PhD program. Staff members are from participating departments and from the Molecular Biology Institute. Areas for study include cell biology; developmental biology and neurobiology; nuclear acid biochemistry; gene regulation; immunobiology; microbiology/virology and pathogenesis; molecular evolution and paleobiology; 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 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Graduate Courses
252. Writing for Science (1) Seminar, one hour. Corequisite: Biological Chemistry 251A or 251B or 251C. Limited to first-year Molecular Biology PhD students. Development of specific skills in scientific writing within context of one advanced course on mechanisms 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 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) enzyymology and protein chemistry. Letter grading.

254B. Concepts in Molecular Biosciences. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced requisite: course 254A. Important biological problems that have been genetically analyzed in different organisms or small number of related problems. Major genetic approaches used in relevant organism, 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.
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 Molecularity, 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 C141; 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 Hershey Hall, early in their educational planning. Completed applications should be submitted at least two weeks prior to the term in which students plan to begin the honors program.
Molecular, Cell, and Developmental Biology

Lower-Division Courses

19. Flat Lux Freshman Seminars. (1 Seminar, 1 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 in UCLA. P/NP grading.

30H. Collaborative Undergraduate Research Laboratory in Yeast, Genetics, and Molecular Biology. (5) Lecture, two hours; laboratory, six hours. Limited to 24 students in Collaborative Undergraduate Research Laboratory (CURL), sponsored by Howard Hughes Medical Institute Professors Program. Basic training in biological research, covering topics in molecular genetics, molecular biology, model organism biology, and data analysis. Letter grading.

40. AIDS and Other Sexually Transmitted Diseases. (5 Lecture, three hours; discussion, one hour; experiential 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. (5) Lecture, three and one half hours; discussion, 90 minutes. Developmental biology of various types of human stem cells. Important functional differences between embryonic, hematopoietic, and adult stem cells, as well as differences in their biomedicai 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.

60. Biomedical Ethics. (5) Lecture, three hours; discussion, one hour. Examination of importance of ethics in research and clinical care. Ethics and stem cell biotics 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. (5) Lecture, four hours; discussion, one hour. Designed for non-majors. 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.

99. Student Research Program. (1 to 2) Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Introduction to Cell Biology. (5) Lecture, two hours; laboratory, eight 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. Analysis of cell organization, structure, and function at molecular level. Cell membranes and organelles, membrane transport, cellular signaling, cytokesetin and cell movement, intracellular trafficking, cell energetics. Letter grading.

104AL. Research Immersion Laboratory in Developmental Biology. (8) Lecture, two hours; laboratory, 104AL is requisite to 104BL. Limited to Molecular, Cell, and Developmental Biology majors or to students with credit for course 165A. 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.

110L. Integrative Approach to Discovery in Molecular, Cell, and Developmental Biology. (5) Lecture, four hours; laboratory, 14 hours. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, and 107. Discovery-based research experience in molecular, cell, and developmental biology. Working in small research teams, students engage in experiments using primitive marine chordate Botryllus schlosseri. Evaluation of data through rigorous quantification and bioinformatic techniques using programs 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. (4) 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 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. Production of team poster and final report describing entire research project required. Letter grading.

120. Introduction to Plant Biology. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, and 107. Development of understanding of fundamental molecular mechanisms and cellular activities guiding formation of complex organism from single fertilized egg. Development of minimal scientific justification, relying on hope and hype rather than scientific fact. Exploration of use of stem cells in medicine to take close look at science behind some of today’s most famous and infamous stem cell medical applications. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty 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.
of model organisms to understand conserved nature of development, 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 and communicate with one another to coordinate their activities in time and space in embryo. Special emphasis on experimental approaches used to address these fundamental questions that determine how individual cells and organs are formed and maintained throughout lifetime of organism. Letter grading.

M140. Cancer Cell Biology. (5) (Same as Biological Chemistry M140.) Lecture, three hours; discussion, one hour. Requisite: course 165A. Cancer causes and effects. Effects of cell transformation on cell growth and metabolism. Altered cell cycle, metabolism, and differentiation pathways in cancer cells. Tumor microenvironment contributes to cancer malignancy, including angiogenesis, metastasis, and immune system evasion. Letter grading.

C141. Molecular Basis of Plant Differentiation and Development. Three hours; discussion, one hour. Requisites: Life Sciences 1, 3, 4, 23L, or 7A, 7B, 7C, 23L, and 107. In-depth study of basic processes of growth differentiation and development in plants and how mechanistic paradigms underlying these 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, 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, 23L, or 7A, 7B, 7C, 23L, and 107. Introduction to students with credit for Chemistry 153B. Development of thorough understanding of fundamentals of modern molecular biology both from perspective of known molecular mechanisms for fundamental cellular processes in plants and from theoretical applied perspective for using molecular biology as laboratory tool. Special emphasis on molecular mechanisms that relate to chromatin and histone modifications, DNA replication and repair, transposition, microRNAs, melosis, and splicing. Application of molecular biology as tool to understand embryonic development, reprogramming, and stem cells. Development of sophisticated understanding of DNA, RNA, and protein as well as capability of designing experiments to address fundamental questions in biology and interpreting experimental data.

146. Metabolism and Disease. (5) Lecture, three hours; discussion, one hour. Requisites: course 165A, and Life Sciences 3, 4, 23L, or 7A, 7B, 7C, 23L, and 107. Contribution of cellular metabolism to biology and medicine, including cancer and diabetes. Exploration of (1) major alterations of cellular metabolism in disease, (2) tools and technologies that enable detailed characterization of metabolic alterations, (3) therapeutic targeting of metabolic vulnerabilities, and (4) utility of altered cellular metabolism as diagnostic and predictive biomarkers. Letter grading.

C150. Plant Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, 23L, or 7A, 7B, 7C, 23L, and 107. Most people think of plants as static organisms, yet they live in 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 deeper level, scientists and economists now recognize that beyond obvious need to grow above-ground biomass for fuel production, we must better understand how to make that biomass in sustainable manner. Survey of recent advances in plant biology and how natural compounds affect gene expression. Emphasis on role of natural compounds in plant/microbe, plant/plant, and plant/herbivore interactions; synthesis of synthetic plant metabolites and their use in disease, and resistance to microbial infections. Concurrently scheduled with course C250, P/NP or 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. Limited to Molecular, Cell, and Developmental Biology and Microbiology. Immunochemistry and Molecular Genetics. Introduction to plant biology laboratory to give students hands-on experience doing experiments and making their own observations about plant biology. Letter grading.

150BL. Advanced Research Investigations in Plant Microbe Ecology. Five hours. Enforced requisite: courses C150, 150AL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors for priority pass and first pass. Gene-synthesis software to prepare figures and illustrations for presentations, posters, and reports. Discussion of scientific method, research process, and how science relates to daily lives. 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) (Same as Microbiology CM156.) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4, 23L. Application of genetic principles in human populations, with emphasis on genomics, family studies, positional cloning, mendelian and common diseases, cancer genetics, animal models, cytogenetics, pharmacogenetics, population genetics, and genetic counseling. Lectures and readings in literature, with focus on current studies of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM256. Letter grading.

162. Genetic Control of Animal Behavior. (5) Lecture, three hours; discussion, one hour. Enforced requisite: Life Sciences 4, two upper-division molecular cell, and developmental biology or neuroscience courses. How do worms decide whether something smells good or bad? What are the differences between brains 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 social behavior and instinctive mechanisms is studied in model organisms. Special emphasis on neural mechanisms that underlie behavior. Letter grading.

C174A. Advanced Topics in Cell and Molecular Biology. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 3 or 23L, Chemistry 153L, 153R, 154, Life Sciences 6, Light harvesting, photochemistry, electron transfer, carbon fixation, carbohydrate metabolism, pigment synthesis in chloroplasts and bacteria. Assembly of photosynthetic membranes and regulation of genes synthesis in chloroplasts and bacteria. Assembly of photosynthetic membranes and regulation of genes encoding those components. Emphasis on understanding of fundamental processes, with an emphasis on how model organisms have helped to discover fundamental principles in stem cell biology. How do stem cells and molecular engineering can be applied to use of stem cells in regenerative medicine. Ethical and legal issues related to stem cell research. Letter grading.

M170. Biochemistry and Molecular Biology of Photosynthetic Apparatus. (2 to 4) (Same as Chemistry CM170.) Lecture, two to three hours; discussion, zero to two hours. Requisites: Chemistry 153A and 153B, or Life Sciences 3 and 23L, and Chemistry 153L. Recommended: Chemistry 153C, 154, Life Sciences 6. Light harvesting, photochemistry, electron transfer, carbon fixation, carbohydrate metabolism, pigment synthesis in chloroplasts and bacteria. Assembly of photosynthetic membranes, and regulation of genes encoding those components. Emphasis on understanding of fundamental processes, with an emphasis on how model organisms have helped to discover fundamental principles in stem cell biology. How do stem cells and molecular engineering can be applied to use of stem cells in regenerative medicine. Ethical and legal issues related to stem cell research. Letter grading.

172. Genomics and Bioinformatics. (5) Lecture, three hours; discussion, one hour. Requisite: course 144 or 165B or Chemistry 153B or Microbiology 132. Genomics 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 relationship between nucleotide and protein sequences and reconstruction of their evolution, use of microarray technologies to measure changes in gene expression, analysis of microarray data including clustering and promoter analysis, proteomics topics including protein-protein and interactions, epigenomic study of DNA methylation and chromatin modification, and systems biology, or computational approaches to integrating varied genomic data to gain more complete understanding of cellular biology. Letter grading.

C174A. Advanced Topics in Cell and Molecular Biology. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in field of molecular evolution. Constructing evolutionary trees at molecular level; formal testing of alternative hypotheses using sequence data. Concurrently scheduled with course C222A. Letter grading.

191. Variable Topics Research Seminars: Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. Designed for junior/senior departmental majors. Intended for students with strong commitment to pursue graduate studies in molecular, chemical, physiological, and biomedical fields. Weekly variable topics course, with reading, 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. (2) Lab, two 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 is an undergraduate 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: J1. (2) Seminar, three hours. Undergraduate lecture course. Exploration of topics in the scientific, social, and ethical implications of modern life sciences research. May be repeated for credit. P/NP grading.

192D. Undergraduate Practicum: J2. (2) Seminar, two hours. Limited to juniors/senior in any life sciences major. CityLab is an undergraduate 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.

193A–199B. 199C. Research Group Seminars: Molecular, Cell, and Developmental Biology. (1) Seminar, two hours. Limited to juniors/senior in any life sciences major. CityLab is an undergraduate 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.
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 the research method. Required of graduate students. Must be concurrent with 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 (must be drawn almost entirely from breadth and depth of courses in biology). Must be taken for at least three terms and for total of at least 12 units, individual contract required. In Progress (198A) and letter (198B) grading. Report on project 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. Required of graduate students. Supervised 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 sponsors. Supervised individual research under guidance of faculty mentor. Students to involve in 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. 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 sponsors. Supervised individual research under guidance of faculty mentor. Supervised individual research 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. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses


C224. 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 topics. Basic information provided as to how this knowledge is obtained in laboratory using variety of experimental approaches and model organisms. Letter grading.


C230B. Structural Molecular Biology. (4) Same as Chemistry M230B. Lecture, three hours; discussion, one hour. Requisites: Mathematics 3C, Physics 6C. Selected topics from principles of biological structure: structures of globular proteins and RNAs; structures of fibrous proteins, nucleic acids, and polysaccharides; harmonic analysis and Fourier transforms; principles of electron, neutron, and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction. S/U or letter grading.

C230D. Structural Molecular Biology Laboratory. (2) (Same as Chemistry M230D) Laboratory, 10 hours. Corequisite: course C230B. 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.

C234. Genetic Control of Development. (4) Same as Biological Chemistry M234. Lecture, four hours. Topics at forefront of molecular developmental biology, including recent developments in early embryogenesis, pattern formation, axis determination, nervous system development, cellular morphogenesis, and cell-cell and cell-matrix interactions. S/U or letter grading.

C239. Molecular Basis of Plant Differentiation and Development. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 3, 4, and 23L, and 107. In-depth study of basic processes of growth differentiation and development in plants and molecular mechanisms underlying these processes. Discussion of variety of plant systems, with focus on understanding mechanisms underlying current experimental basis of research in this field. Concurrently scheduled with course C141. Preparation and presentation of term paper, in addition to other coursework, required of graduate students. Letter grading.

C242. Topics in Neurobiology. (4) Lecture, three hours. Requisite course 171. Selected current problems in neurobiology discussed in depth, with emphasis on original literature and review papers. May be repeated for credit. Letter grading.

C250. Plant Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Most people think of plants as static organisms, yet they live in world of symbiosis and plants change atmosphere, enrich soil, and communicate with insects, bacteria, and other Earth’s ultimate symbiotic. Just as science has revealed over time misconceptions about how things work at deeper level, scientists and economists now recognize that beyond obvious need to grow above-ground biomass for fuel production, we must better understand how to make biomass in sustainable manner. Introductory course in chemical ecology and how natural compounds affect gene expression. Emphasis on role of natural compounds in plant/microbe, plant/plant, and plant/animal relationships. Interactions, syn- drome of principles of plant defense mechanisms and responses to microbial infections. Concurrently scheduled with course C150. S/U or letter grading.

C254. Seminar: Plant Morphogenesis. (2) Seminar, two hours. S/U or letter grading.

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 mitochon- dria, C to U index switch in eukarote 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 genomics, family studies, positional cloning, Mendelian and common diseases, medical genetics, animal 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.

268A-268B-268C. 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 and dealing with corresponding disease. S/U grading.

M272. Stem Cell Biology and Regenerative Medicine. (4) Same as Pathology M272. Lecture, two hours; discussion, two hours. Designed for graduate students. 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 to develop stem cells in regenerative medicine. Bioethical and legal issues related to stem cell research. S/U or letter grading.

276. Seminar: Molecular Genetics. (2) Seminar, two hours. Topics vary each term. S/U or letter grading.


278. Seminar: Molecular Genetics of Development. (2) Seminar, two hours. Designed for graduate students. Topics vary from year to year, with focus on establishment of position and pattern during embryogenesis by interaction of signal transduction systems and transcription factors. S/U or letter grading.


283. Seminar: Topics in Biochemistry. (2) Seminar, two hours. Discussion of various topics on biology of eukaryotic cells. Topics vary from year to year and include bioenergetics, motility, organelle RNA, membrane structure and function, oncogenic transformation, nuclear organization and function. S/U or letter grading.
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 and cellular biology and systems physiology to important questions in organismic function. Students learn to conceptualize physiological questions across several levels of organization and to understand how research strategies incorporating each of the levels of analysis can be formulated. This approach to physiology education is responsive to the need for physiologists who can intellectually and technically span disciplines related to physiology that are typically separated.

Coursework consists of formal instruction in the most current information in molecular biology, cell biology, and the molecular and cellular foundations of physiology. In addition, students identify an area of emphasis in biophysics, cellular and molecular biology, or integrative/comparative physiology in which additional studies are pursued. The heart of the program, however, is the research that leads to the dissertation, which is performed under the guidance of a faculty mentor. The program faculty includes more than 90 professors in the Geffen School of Medicine and College of Letters and Science. Collectively they have been recently ranked by the National Research Council in the top five in the U.S. for their quality as an academic faculty.

Graduate Study

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

Graduate Degree

The Molecular, Cellular, and Integrative Physiology Program offers the Doctor of Philosophy (PhD) degree in Molecular, Cellular, and Integrative Physiology.

Molecular, Cellular, and Integrative Physiology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in 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 exploratorydevelopment 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: Preclinical Research in Muscle Disease. (2) Seminar, two hours. Recent advances have been made in genetic identification of molecular basis of muscle disease, and some mechanisms involved have been elucidated. Focus on muscle diseases in which substantial mechanistic information has been obtained, including particular cellular locations and diseases associated with those locations. Topics include Duchenne muscular dystrophy, congenital muscular dystrophy, limb girdle dystrophy, Ullrich myopathy, and other forms of genetically inherited muscle disease. S/U grading.
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)

Letter grading.

**Molecular Mechanisms of Human Diseases I.** (Formerly numbered M252A) Lecture, four hours. Preparation: prior satisfactory molecular biology coursework. Corequisite: course 252B. Fundamental concepts and methodologies in modern biology, with emphasis on implications and relevance to human disease and integration of biology with mechan-isms underlying disease development and applica-tions as they apply to cancer biology, infectious disease, and modern biological approaches. Letter grading.

252B. Seminar: Molecular Mechanisms of Human Diseases II. (Formerly numbered M252B) Seminar, one hour. Corequisite: course 252A. Reading, review, and discussion of primary research literature addressing fundamental concepts and methodologies in modern biology, with particular emphasis on implications and relevance to human diseases of topics presented in course 252A. Letter grading.

252A. Molecular Mechanisms of Human Diseases I. (Formerly numbered M252A) Lecture, four hours. Preparation: prior satisfactory molecular biology coursework. Corequisite: course 252B. Fundamental concepts and methodologies in modern biology, with emphasis on implications and relevance to human disease and integration of biology with mechanisms underlying disease development and applications in therapy as they apply to neurological, cardiovascular, and metabolic diseases. Letter grading.

262B. Seminar: Molecular Mechanisms of Human Disease II. (Formerly numbered M262B) Seminar, two hours. Corequisite: course 262A. Reading, review, and discussion of primary research literature addressing fundamental concepts and methodologies in modern biology, with particular emphasis on implications and relevance to human diseases of topics presented in course 262A. Letter grading.

290A-290B-290C. Tutorials. (4–4–4) Tutorial, to be arranged. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

Scope and Objectives

Faculty from 15 departments and schools at UCLA, including chemistry and biochemistry, environmental health sciences, epidemiology, medicine, molecular and medical pharmacology, and pathology and laboratory medicine, have joined forces to create an interdisciplinary PhD program in Molecular Toxicology that is administered through the Fielding School of Public Health.

Specialties within the program include, but are not limited to, neurotoxicology, developmental toxicology, genetic toxicology, and carcinogenesis. There is a particular emphasis on mechanisms of toxicity, since it is now widely accepted that understanding mechanisms will provide the means for accurately determining risk.

New chemicals have been the basis for most of the technological developments during the past century, and there is no question that society has reaped enormous benefits from the creation and growth of the chemical industry. However, major health and environmental problems have also been the legacy of the synthesis of new chemical species. The discipline of toxicology, which seeks to characterize and elucidate the mechanisms of the problems related to exposure of chemical agents, has also developed from a purely descriptive to an increasingly sophisticated 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 (including 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). Corequisites: Life Sciences 2, 3. Introduction to pharmacology and toxicology for undergraduate stu-dents, emphasizing drug development and mecha-nisms 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 week. 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; discus-sion, one hour. Preparation: undergraduate biology and chemistry courses. Required in Environmental Health Sciences C240. Examination of recent litera-ture 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 infiel, 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. (2 to 12) Tutorial, to be arranged. May not be applied toward degree course requirements. May be repeated for credit. S/U grading.

Professors Emeriti
Elaine R. Barkin, PhD
Roger Bourland, PhD
Paul S. Chihara, PhD
Maurice Gerow, PhD
Frederick F. Hammond, 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
Sheridon 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
Audrey D. Faord, MM
Peter R. Golub, PhD
Rakefet R. Hak, MM
Jeffrey J. Kryka, PhD
James D. Lent, DMA
Noah G. Meites, DMA
James T. Miller, MM
Lou Anne Neill, MA
Hitomi M. Oba, MA
Benjamin J. Phebus, PhD
Jean-Louis Rodrigue
Peter Rutenberg
Amy M. Sanchez, MM
Andrew A. Schruur, PhD
John A. Steinmetz, MA
Adjunct Professors
Christoph Bull, DMA
Mark C. Carlson, PhD
Gloria G. Cheng
Don E. Franzén
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 repertory being performed, as acquired in previous coursework and through research. Students also display their ability to assemble an effective program in terms of pacing and variety and demonstrate requisite stage presence along with an ability to communicate with their audience in performance.

Music Major

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. Admission 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 presented in their principal performing medium with members of the performance faculty. Admission to the theory concentration is open only to junior/senior Music majors on the basis of an interview with the composition theory faculty.

**Performance:** Twelve units in performance instruction from Music 160A through 165 (including 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 5 elective units selected from any upper-division ethnomusicology, music, or musicology courses. During each term in which students take private lessons, they must participate in a 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 primary instrument or in voice
- Demonstrated excellent aural musicianship skills and a working knowledge of music theory and music history
- Demonstrated knowledge of a varied repertory of music that includes Western, non-Western, and popular musical genres
- Pedagogical skills, assessment strategies, and musical leadership abilities in classroom, instrumental, and choral settings
- Demonstrated basic skills in secondary performance areas and music technology
- Identification and description of major concepts and theories of educational psychology
- Flexibility necessary to teach music in traditional and non-traditional settings

**Admission**

Applicants are required to audition in their primary performance medium and interview with the music education faculty.

**Preparation for the Major**

All entering freshmen are required to take the Music Theory Assessment Examination either during New Student Orientation or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A. Entering transfer students 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 (courses C90A through 90N and C90Q through 90S), as assigned by the chair or music education 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.

**The Major**

**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 (courses C90A through 90N and C90Q through 90S), as assigned by the chair or music education 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 detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Music offers the Master of Music (MM) degree, Doctor of Musical Arts (DMA) degree, and Master of Arts (MA), Candidate in Philosophy (CPHil), and Doctor of Philosophy (PhD) degrees in Music.

**Music**

**Lower-Division Courses**

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 elements of music: pitch and rhythm symbols, meter and time signatures, notation, scales, intervals, and chord structure. 1B. Requisite: course 1A. Diatonic harmony; four-part writing, including inversions, seventh, secondary dominants, and modulation; organization of melody and accompaniment; simple analysis; sight-singing and ear training.

3. Preparatory Music Theory. (4-4-4) Lecture, four hours; laboratory, one hour. Course in music fundamentals, including musicianship, theory, and terminology. 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, including vocal mechanism, posture and breathing, musical 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 Musicianship. (2–2–2) (Same as Ethnomusicology M6A-M6B-M6C and Musicology M6A-M6B-M6C.) Laboratory, four hours. Preparation: placement examination: course M6A is enforced requisite to M6B, which is enforced requisite to M6C. Students must receive grade of C– or better to proceed to next course in sequence. Introduction to musicianship through in-depth exploration of basic common musical elements and training in aural recognition, sight singing, dictation, and keyboard skills. Focus on topics such as tonal and modal harmony, rhythm, improvisation, composition, notation, and ear training to prepare students for later theory courses, participation in music ensembles, advanced study in music, and professional careers. Letter grading.

7. Understanding Movie Music. (4) Lecture, four hours; outside study, eight hours. Musical experience helpful, but not required. Brief historical survey of film
music, with strong emphasis on recent developments: Japanese animation, advertising, and TV, as well as computer tools and digital scoring methods. Designed to inspire and inform those interested in music movies. Offered in summer only. P/NP or letter grading.

8Q. 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. S/U 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 analysis of historical, and cultural frameworks. Music as aesthetic experience and cultural practice. P/NP or letter grading.


19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members. Designed to expose and direct many paths of discovery at UCLA. P/NP grading.

20A. Music Theory I. (3) Lecture, four hours. Preparation: passing score on departmental examination. Course 20A is enforced requisite to 20B, which is enforced requisite to 40B. Theory: diatonic harmony through secondary dominants and diminished sevenths; modulation to dominant and relative keys; writing of four-part chorales; style composition in baroque dance forms; introduction to figured bass notation. P/NP or letter grading.

20C. Music Theory III. (4) Lecture, four hours. Enforced requisite: course 20A 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.

30A-30B. History, Listening, and Survey of Piano Literature. (2) Two hours and 2.5 hours. Strongly recommended for undergraduate piano and music education majors as their main instrument. Survey course covering standard piano literature and composers, performance, and reading. Letter grading.


60A-65. Undergraduate Instruction in Performance. (2 each) Studio, one hour. Limited to Music majors (all freshmen/sophomore majors, and junior/senior majors not in performance specialization). Individual instruction. Students must perform in one practice during academic year. Grades are assigned by application of the student to director 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; 60K: Lute; 61A: Flute; 61B: Oboe; 61C: Clarinet; 61D: Bassoon; 61E: Saxophone; 62A: Trumpet; 62B: French Horn; 62C: Trombone; 62D: Tuba; 63: 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. Additional assignment counts as extra hours. Voice: leading, melodic and harmonic construction, orchestration, form, texture, style, notation, and performance feasibility. P/NP or letter grading.

74A-74B-74C. Introduction to Singing Diction. (2-2-2) Studio/demonstration/performances. 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), and acclimation to phonetic issues of translation. Exploration of variety of vocal repertoire, including opera, art songs, early music, recitative, and folk songs. Transcription, translation, spelling problems, 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. 74B: German. Enforced requisite: course 74A. Introduction to basics of singing diction and development of French 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 improvisations. 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, and cadences, transposing, and ear training. Offered in summer only. P/NP or letter grading.

80C. 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.

80D. 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.

80E. Vocal Technique for Beginners. (4) Laboratory, six hours; preparation/practice, six hours. Voice instruction for singers at beginning to intermediate level. Exploration of fundamentals of vocal technique, including overview of basics of proper breath control, resonance, care of voice, diction, and interpretation. Beginning vocal repertoire used as vehicle for understanding these concepts. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80F. 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.

80G. Wind Ensemble. (4) Laboratory, four hours; outside study, four hours. Preparation: audition. May be repeated with consent of instructor. Letter grading.

80H. Woodwind Technique for Beginners. (4) Laboratory, six hours; preparation/practice, six hours. Woodwind instruction designed to give students knowledge of fundamental concepts and techniques of saxophone, clarinet, oboe, bassoon, and flute. Offered in winter only. P/NP or letter grading.

80I. Vocal Technique for Beginners. (4) Laboratory, six hours; preparation/practice, six hours. Voice instruction designed to give students knowledge of fundamental concepts and techniques of saxophone, clarinet, oboe, bassoon, and flute. Offered in winter only. P/NP or letter grading.

80J. Chamber Singers. (2) Activity, three hours. Preparation: audition. Select mixed ensemble of 16 to 20 voices performing choral repertoire of all periods, with emphasis on Renaissance and baroque music. May be repeated for credit without limitation. P/NP or letter grading.

80K. Wind Ensemble. (2) Activity, six hours. Preparation: audition. Group performance of symphonic literature, as well as orchestral accompaniments for instrumental and major choral works. May be repeated for credit without limitation. May be concurrently scheduled with course C481. P/NP or letter grading.


80M. Marching and Varsity Bands. (2) Activity, four hours. Preparation: audition. Group performance of special band arrangements for football and basketball games as well as special events. May be repeated for credit without limitation. May be concurrently scheduled with course C482. P/NP or letter grading.

80N. Jazz Ensemble. (2) Activity, three hours. Preparation: audition. Group performance of instrumental and popular music in ensembles of 20 to 30 instruments. May be repeated for credit without limitation. P/NP or letter grading.

80P. Alexander Technique. (2) Lecture, four hours; outside preparation and practice, two hours. Limited to Ethnomusicology, Music, Music History, and Musicology majors. Introduction to principles of Alexander technique. Study of musician’s postural attitude at instrument, including physical movement as application of theory. Designed to help instrumentalists and vocalists prevent injuries and performance anxiety. May be repeated with consent of instructor. Letter grading.

80Q. Piano/Keyboard Accompanying. (2) Activity, four hours; outside study, two hours. Collaboration with large ensembles, instrumentalists, and/or vocalists of all ages and on all instruments. May include other activities and led by lecture course instructor. P/NP or letter grading.
90S. Harp Accompanying. (2) Activity, four hours; outside study, two hours. Collaboration with instrumentalists and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, chamber ensembles, and recitals. May be repeated for credit without limitation. P/NP or letter grading.

M90T. Early Music Ensemble. (4) Same as Musicology CM90T. Activity, four hours. Preparation: audition. Group study 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. 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

104A. Modal Counterpoint. (3) Lecture, three hours. Requisite: course 120C (accelerated section). In-depth exploration of traditional and technical aspects of counterpoint of 15th and 16th centuries through writing and analysis of important forms of period, including species, canon, free counterpoint, canons, fuxism, point counterpoint, counterpoint in bars, etc. Letter grading.

104B. Special Topics in Counterpoint. (3) Lecture, three hours. Requisite: 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 writing and analysis. Letter grading.

106A. Orchestration I. (4) Discussion, three hours. Requisites: courses 120A, 120B, 120C (accelerated section), 123C. Scoring and analysis for ensembles and full orchestra. P/NP or letter grading.

110A. Advanced Choral Conducting. (2) Lecture, two hours; activity, two hours; studio, two hours. Development and refinement of choral conducting techniques. May be repeated once for credit. Concurrently scheduled with course C118B. P/NP or letter grading.

119A. Vocal Techniques for Music Education. (3) Lecture, two hours; activity, two hours; outside study, five hours. Introduction of teaching voice, including anatomy of singing instrument, biomechanics of singing, diagnosis and correction of faults, health and care of voice, and instrumental techniques. Application of knowledge to teaching methods. May be repeated once for credit. Concurrently scheduled with course C218B. P/NP or letter grading.

119B. Western and World Percussion Pedagogy. (3) Lecture, two hours; activity, two hours; outside study, five hours. Enforced requisites: courses 20A, 20B, 20C, 110A. Foundations for teaching music by development of understanding of curriculum, teacher techniques, improvisation, and uses of technology in jazz education. Undergraduate courses include basic concepts of sequencing, composition, ensemble performance, and creation of multimedia presentations using tablet (iPad) technology. Letter grading.

120A. Music Theory IV. (4) Lecture, four hours; discussion, four hours. Preparation: passing score on departmental first-year examination. Requisite: course 20C with grade of C (2.0) or better. Theory: baroque counterpoint including choral prelude; two-part invention; exposition and first modulation of three-part invention; canonic principles; analysis of variations, canons, and fugues. Music education: sight-singing of extended chromatic melodies; advanced harmonic dictation (diatonic and chromatic); keyboard proficiency; elementary music reading and interpretation. Letter grading.

120B. Music Theory V. (4) Lecture, four hours; discussion, four hours. Requisite: course 20A with grade of C (2.0) or better. Theory: advanced harmonic and counterpoint. In-depth study of the major tonal music from 1850; analytical projects; style composition. Music education: advanced score reading; advanced diatonic dictation; preparation for departmental examinations. P/NP or letter grading.

120C. Music Theory VI. (4) Lecture, four hours; discussion, two hours. Enforced requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. In-depth study of certain aspects of 20th-century music ranging from individual composers and schools to ideological or stylistic concerns. May be repeated once for credit. P/NP or letter grading.

121. Special Topics in 20th-Century Music. (4) Lecture, three hours. Requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. In-depth study of certain aspects of 20th-century music ranging from individual composers and schools to ideological or stylistic concerns. May be repeated once for credit. Concurrently scheduled with course C222. P/NP or letter grading.

Music


124B. Scoring for Wind Ensemble. (4) Discussion, three hours. Requisites: courses 106B, 120C (accelerated section), 123C. Practical applications in scoring for wind large ensemble. Preparation and production of score and parts. May include percussion. At least one reading by UCLA Wind Ensemble scheduled. Letter grading.

124C. Scoring and Arranging for Choral Ensemble. (4) Discussion, three hours. Requisites: 106B, 120C (accelerated section), 123C. Practical applications in scoring and arranging for choral ensembles, including a cappella as well as works with instrumental accompaniment 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 musical style referred to today as Latin jazz. P/NP or letter grading.

M134. Introduction to Western Contemporary Music. (4) (Same as Armenian M134 and Ethnomusicology M134.) Lecture, three hours. Some amount of formal music study and experience as vocalist or instrumentalist desirable but not essential. Interpretation of music 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-136B-136C. Historical Survey of Music Theater. (4-4-4) Lecture, four hours: discussion, one hour. Historical survey of major works from music theater, tracing development of art form from its European beginnings to modern musical theater of today. P/NP or letter grading. 136A. Early Forms to 1900; 136B. 1900 to 1945; 136C. 1945 to 1975.

140A-140B-140C. History and Analysis of Western Music. (5-5-5) Lecture, four hours; discussion, one hour. Survey of Western music; examination of representative compositions within their cultural contexts and development of analytical methods appropriate to each repertoire. Letter grading. 140A. To 1700. Requisites: course M101. Lecture, two hours: discussion, one hour. Historical survey of major works from music theater, tracing development of art form from its European beginnings to modern musical theater of today. P/NP or letter grading. 136A. Early Forms to 1900; 136B. 1900 to 1945; 136C. 1945 to 1975.

C150. 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, transcription, figured bass, harmonization, improvisation, score reduction, and ensemble issues. Concurrently scheduled with course C450. P/NP or letter grading.

C155. Instrumental and Piano Duo Repertoire. (2) Activity, two hours; outside study, four hours. Performance-based course that develops repertoire and experience in collaboration for pianists and instrumentalists. Activities include weekly score preparation, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, waived activities, and related activities. Regular coaching with faculty members, weekly performance workshop, and rehearsals. Concurrently scheduled with course C455. P/NP or letter grading.

C158. 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 performances for lessons, juries, recitals, master classes, auditions, and other related activities. Intensive diction study incorporated. Regular coaching with faculty members, weekly performance class, and rehearsals. Concurrently scheduled with course C458. P/NP or letter grading.

160A-160B-160C. Undergraduate Instruction in Performance for Performance Specialist. (2 each) Lecture, one hour; supervised laboratory, three hours. Limited to junior/senior Music major students that have been accepted by audition into performance specialization. Individual instruction. Students must perform in noon concert once during their junior year, twice during their senior year. Grades are assigned by instructor. Letter grading.


166. Advanced Undergraduate Instruction for Composition Specialists. (2) Studio, one hour per week to be arranged with instructor; outside study, five hours. Enforced requisite: course 66 (6 units). Limited to junior/senior music composition students. One-on-one composition lessons with assignments and compositions for student progress and level of achievement. Lessons address counterpoint, voice-leading, harmonic and melodic construction, orchestration, form, texture, style, notation, and performance feasibility. May be repeated for credit. P/NP or letter grading.

C167. Selected Topics in Keyboard Literature. (2) Lecture, two hours. Enforced corequisite: one course from 64A, 64B, 64C, 164A, 164B, or 164C. In-depth study of selected topics in keyboard literature, concentrating on problems of performance through analysis, historical and comparative studies, and actual performance by the participants. May be concurrently scheduled with course C267. P/NP or letter grading.

174. Vocal Diction. (2) Lecture, two hours; outside study, four hours. Designed for Major Music. Sounds of language as applied to singing, including use of International Phonetic Alphabet, translation of song texts, and application to student’s current vocal repertoire. Background in each language encouraged. P/NP or letter grading.

C175. Chamber Ensembles. (2) Activity, two to four hours. Performed by ensembles must be at advanced level of their instrument to participate. Applied study of performance practices of light 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 C485. P/NP or letter grading.


188. Special Courses in Music. (4) Lecture, three hours; outside study, nine hours. Special topics in music for undergraduate students taught on experimental or temporary basis. May be repeated for credit. P/NP or letter grading.

193. 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 assignments and led by lead course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

195. Community or Corporate Internships in Music. (2 to 4) Tutorial, six hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with supervising instructor and submit periodic reports of their work experiences. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Music. (2 or 4) Tutorial, one hour. Preparation: 3.0 grade-point average. Limited to juniors. Individual in music, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter (research project) required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

M201. Repertory and Analysis. (2) Same as Musicology M201.) Seminar, two to four hours. Enforced requisite: Musicology 200A. Exploration of defined repertory through readings and analysis. Specific topics vary. May be repeated for credit.

202. Analysis for Performers. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Survey of analytical techniques and approaches required for professional performers, including phrase structure, harmonic rhythm and prolongation, small and large forms of musical coherence, and understanding of styles. Letter grading.

203. Notation and Performance. (4) Lecture, three hours; outside study, nine hours. Designed for graduate music students. Survey analysis of evidence performers use to make their interpretive decisions in performance of vocal and instrumental music of European tradition. Topics include editions, treatises, transcription techniques, and musical performance. Influence of recordings, composer-performer relationship, and nonstandard notation. Letter grading.

204. Music Bibliography for Performers. (4) Lecture, three hours; outside study, nine hours. Designed for graduate music performance students. Survey of general bibliographic techniques in music, with emphasis on materials for performing musicians. Letter grading.

C209A. Oboe Reed Making. (1) Activity, one hour; outside study, two hours. Enrollment by consent of instructor. Introduction and overview of oboe reed making, including hands on training with tools and techniques necessary to develop and maintain oboe reeds. May be repeated for credit. May be concurrently scheduled with course C109A. S/U or letter grading.

C209B. Bassoon Reed Making. (1) Activity, one hour; outside study, two 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 C109B. S/U or letter grading.

C218A. Advanced Choral Conducting. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117, 121A. Conducting basics, baton technique, best practices, diction, 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, 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. Discussion of speculative approaches to music theory. Credit/no credit grading. Limited to Ethnomusicology, Music, and Musicology CM288 and Musicology CM288.) Lecture, four hours; laboratory, three hours. Creative use of MIDI-computer resources. May be repeated for credit. S/U or letter grading.

C226. Electronic Music Composition. (4) Lecture, three hours; laboratory, three hours. Preparation: advanced experience and accomplishment in serious composition. Discussion of electronic computer control of instrumental and vocal ensembles. Students expected to perform their scores from sketches at music or present notation files of work-in-progress with playback file, where appropriate. Performance of composition works, in graduate composition concerts designed for graduate students. Limited enrollment. Exercises in electroacoustic orchestration, meta-pitch composition, notation software (Sibelius), sequencing and film scoring software (Logic), text collages (ProTools), and final project. May be concurrently scheduled with course C176. S/U or letter grading.

251. Seminar: Orchestration. (4) Seminar, three hours. Designed to provide graduate composition students with in-depth exposure to complex and rich works of late Middle Ages through dawn of baroque era. Exploration of analytical techniques and methods 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.

254. Advanced Music Analysis: Pre-Tonal Music. (4) Seminar, three hours. Introduction to music composition with in-depth exposure to complex and rich works of late Middle Ages through dawn of baroque era. Exploration 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 of late 19th- and early 20th-century music. May be repeated for credit. S/U or 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 theoretical 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 commercials and 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 music: production, reduction (shooting), and postproduction. Examples from classic movies and discussion of their scores. Composition of actual cues for acoustic instruments coordinated to picture, designed to provide 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 sources of problematic musical performance practices as related to period; analytical reports and practical applications in class demonstrations. May be repeated for credit. Letter grading. 261A, Medieval; 261B, Renaissance; 261C, Baroque; 261D, Classical; 261E, Romantic; 261F, Contemporary; 261J, Jazz.

266. Graduate Instruction for Composition Specialists. (4) Studio, one hour arranged with instructor; open to all graduate composition 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 compositions 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.

C275. Selected Topics in Keyboard Literature. (2) Lecture, two hours; outside study, four hours. Examination of selected topics in keyboard literature, concentrating on problems of performance through analysis, historical and comparative studies, and active performances by participants. May be concurrently scheduled with course C167. 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- cology 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 industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM182. Letter grading.

290. Composition Formulation. (2) Seminar, two hours; outside study, six hours. Weekly forum to present professional composers of orchestral, ensemble, and chamber music literature and recent published music for string orchestra. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

S331A-S331B-S331C. Orff Schulwerk Training. (2) Seminar, two hours; laboratory, three hours. Creative use of MIDI-computer resources. May be repeated for credit without limitation. S/U or letter grading.

S345. Symposium on Art of Choral Music. (2) Lecture, 25 hours. Symposium for college, high school, and junior high school choral directors on development of practical techniques and real challenges in choral conducting and teaching. Topics include innovative choral methods, choral conducting, vocal pedagogy, voice classification, and survey of standard and current choral literature. Offered in summer only. S/U or letter grading.

S350A. Introduction to Computer-Assisted Instruc- tion in Music. (2) Lecture, three hours; laboratory, two hours. Introduction to instructional uses of computer music class: on practical information necessary to intelligently purchase and implement microcomputers in schools. Courseware to be experienced and reviewed, jargon defined and illustrated, and practical hands-on experience obtained. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

S350B. Exploration of MIDI Computer Resources: Keyboards and Synthesizers. (2) Lecture, two hours; laboratory, three hours. Creative use of MIDIBased synthesizers under computer control. Exploration of available hardware resources allied with various software sequencing packages. Use of software for computer-based music printing. Hands-on experience. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

S360. 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.

S375. 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 or letter grading.

S401. New Music Forum. (2) Tutorial/laboratory, two hours. Preparation: one year of graduate study in music at UCLA. Interactive course in preparation and
performance of premiere work especially composed for graduate performer or performers by graduate composer at UCLA. Letter grading.

C440. 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. Concurrency scheduled with course C150. Letter grading.

C455. 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 study, 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.

C458. 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 C158. Letter grading.


C469. Instrumental Pedagogy. (4) Lecture, three hours; outside study, 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.

C470. 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.

C471. 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.

C472. 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.

C475. 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.

C477. 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 without limitation. Concurrently scheduled with course C177. S/U grading.

C480. 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. May be concurrently scheduled with course C90A. Letter grading.

C491. 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.


C494. 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 C90Q. Letter grading.

C495. 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.

C496. Jazz Ensemble. (2) Studio, six hours. Designed for MM students in jazz performance area of study. Group performance of jazz repertoire. May be repeated for credit without limitation. Letter grading.

C495D. Directed Individual Studies in Performance. (2 to 12) Tutorial, to be arranged. Only 4 units may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

C596. Directed Individual Studies in Performance Practices. (2 to 12) Tutorial, to be arranged. Only 4 units may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

C597. Preparation for Master’s Comprehensive Examination or PhD Qualifying Examinations. (2 or 4) Tutorial, to be arranged. S/U grading.

C598. Guidance of MA Thesis. (4, 8, or 12) Tutorial, to be arranged. Only 4 units may be applied toward degree requirements. May be repeated for credit. S/U grading.

C599. Guidance of PhD or DMA Dissertation. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

MUSIC INDUSTRY
Interdisciplinary Minor
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Music Industry
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Scope and Objectives
The Music Industry minor is an interdisciplinary and interdepartmental series of courses designed to (1) introduce students to a critical perspective on the formative effects of the music industry and music technology that had on musical practices around the world, (2) prepare students for employment in the music industry, including marketing and sales, recording production, intellectual property, sound recording, and arranging, and (3) contribute to improved communication and interaction between UCLA, the music industry, and the musical life of Los Angeles.

Undergraduate Study
Music Industry Minor
The Music Industry minor is intended to provide students with an introduction to the history, theory, and practice of music as a calling and a business and to provide opportunities for students to work with practitioners on real-world projects in the music industry.

To apply to the minor, transfer students must have completed a minimum of one term of residency at UCLA, and students admitted as freshmen must have completed a minimum of three terms of residency at UCLA. Students

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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 ensemble course selected from Ethnomusicology 91A through 91Z, Music C99A through 99N, or C99Q 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 must be in good academic standing with an overall grade-point average of at least 2.0.

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. 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. Honors Seminars. (1) Seminar, three hours. Limited to designated as adjointed tributary 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. 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 industries have developed to analyze, understand, and perhaps judge what happens out there, including how music business works in financial, legal, global, and artistic terms, how music technologies of recording, reproduction, and consumption operate, and how basic music science from acoustics to brain biology to music perception affects how music is produced and heard. Letter grading.

102. Music Business Fundamentals. (4) Seminar, three hours; outside study, nine hours. Introduction to basic economics of creative industries, focusing on unique business structures in entertainment US, and abroad, how power has shifted but still is held in music and where opportunities for music professionals and other industry professionals will be in next 10 to 20 years, as if in full-time job. P/NP grading.

103. Music and Brain. (4) Formerly numbered 103.) (Same as Neuroscience M170). Seminar, three hours; outside study, nine hours. Multidisciplinary approach underpins understanding of the brain, including perceiving music, processing, performance, and cognition. Students’ natural interest in music serves as springboard for learning basic concepts about brain works. Focus on specific themes such as harmony perception, rhythm perception, emotion and meaning in music, and creativity. Designed to help students understand methodologies currently used to investigate brain-behavior correlates. Broad understanding of research topics in cognitive neuroscience, one of three main subdisciplines of neuroscience; introduction to fundamental principles in neurophysiology, psychopharmacology, neuroanatomical, all-from foundation for brain imaging, forensic practice, social psychology research, and marketing research; and specific knowledge about brain mechanisms mediating musical performance and cognitive and emotional functions. Letter grading.

104A. Music and Law. (4) Seminar, three hours; outside study, nine hours. Fundamentals of American law as it applies to entertainment business, with special attention to music 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. Areas include mediation, arbitration, and copyright in music, as well as protecting creative work through intellectual property. 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 examination of legal agreements necessary for production and commercial distribution of recordings. Letter grading.

105. Songwriters on Songwriting. (4) Lecture, three hours; outside study, nine hours. Special focus on songwriters and their creative role in songwriting. Examination of work of greatest songwriters of post-World War II generation (circa 1952 to 1994) and those who have influenced them during 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 demonstrate individual creative processes and discuss their paths to songwriting and their place in world of music. Course is not workshop or tutorial on how to write songs. 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 top record producers, publicists, and performers, to be featured. Letter grading.

107A. Audio Technology for Musicians I. (4) Studio, four hours; outside study, eight hours. Equally for singer songwriters and recording musicians alike. Experience using sample users, electronic equipment and procedures prepare music making, and ability to understand their logic is key for any musician today. Practical technical aspects and application of software (sequencers, recorders, mixers, microphones, and so on) most commonly used in contemporary music making. Main sound processing type (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. En- forced requisites: successful completion of course 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 essential concepts to fashion creative scenarios and applications. Basic familiarity with standard audio workstation software in use in music industry and introduction to foundational theoretical and practical knowledge of audio equipment, mixing, mastering, and sound recording. Development of critical listening skills through in-class and assigned 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 corporation; issues in modern management, finding appropriate venues, developing audience; mechanics, legal and routine, of running arts businesses; establishing relationships with other organizations in field; issues of marketing and development. Students create on paper one performing arts organization, including developing mission statement, preparing bylaws, and writing sample grant proposals. P/NP or 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 documentarians and directors, who are of various backgrounds, discussing their stories and their place in world of music. Course is not workshop or tutorial on how to write or succeed with a documentary film project. Letter 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. Musicianship through Repertoire in Studio. (4) Studio, three hours; outside study, eight hours. Focus on introduction to popular music styles, forms, and competencies through immersion in studio techniques. P/NP or 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 photographic player/radio), how songs and society affect and influence 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 mediums and techniques, 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) 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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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 C90A through C90Q, 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 Placement Examination administered by the Music Department.

Transfer Students
Transfer applicants to the Musicology major with 90 or more units must complete one year of music theory prior to admission to UCLA. Experience in music performance is strongly recommended. Transfer students are required to take Musicology 12W at UCLA.

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

The Major
Required: Musicology 125A, 125B, 125C, 126, 127, 128 (in a given year, the department may designate individual Musicology seminars in the range 160-185, 188, or 191 as equivalent to 126 and 127); one additional upper-division elective, chosen from Musicology 160 through 185, 191A through 191P, 195 (if supervised by Musicology faculty), or an equivalent seminar course in ethnomusicology, music, or music industry (see study list held in the Herb Alpert School of Music Office of Student Services and Enrollment Management); enrollments may be limited—check with the department or
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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 Schoenberg 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-MSC. 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 tradition of Tin Pan Alley, P/NP or letter grading.

12W. Writing about Music. (5) (Formerly numbered Music History 12W.) Lecture, four hours; laboratory, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Emphasis on learning specific skills, incorporating technical description, historical contextualization, subjective reaction, and certain stylistic conventions necessary in writing about music. Satisfies Writing II requirement. Letter grading.

13. Punk: Music, History, Subculture. (5) (Formerly numbered Music History 13.) Lecture, four hours; discussion, one hour. Developments in punk music in their historical and subcultural contexts. Survey of prepunk and musical antecedents in 1960s, rise of punk in 1970s, and tracing of its expressive trajectories to present day. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


35. Introduction to Opera. (5) (Formerly numbered Music History 35.) Lecture, four hours; discussion, one hour. Exploration of history of opera from its origins in Florentine Camerata in Italy in early 17th century, through ages of Enlightenment and Romanticism, and ending with modern era of early 20th century. History of opera, biography of composers and singers, operatic conventions, dramatic business, operatic financial structures, hermeneutics of opera, and musical style, with focus on learning appreciation of music of opera within rich context of its compelling history. P/NP or letter grading.

60. American Musical. (5) (Formerly numbered Music History 60.) Lecture, four hours; discussion, 90 minutes. Survey of American musical in 20th century, beginning with its roots in operetta, vaudeville, and Gilbert and Sullivan, and influenced changes in sexual, racial, and class consciousness; promise (versus reality of) political and social image. Credit for both courses 60 and 160 not allowed. P/NP or letter grading.

61. Music in Los Angeles. (5) (Formerly numbered Music History 61.) Lecture, four hours; discussion, one hour. Exploration of history of music in Los Angeles. From Spanish missions and history of Los Angeles to greater emphasis on music in 20th century, with special focus on European émigrés, interwar 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 life and 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-
sical 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 consumerism, 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 number- 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 influenced 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, Georgian chant, early music revivals, 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 M67.) (Same as Jewish Studies M67.) Lecture, four hours; discussion, one hour. History of several thousand years and series of developments in modernity, music in Jewish life covers variety of styles found in music today. 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 Musica/Israel (Middle Eastern popular music). P/NP or letter grading.

68. Beatles. (Formerly numbered Music History 68.) Lecture, four hours; discussion, one hour. Examination of form and culture 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 have affected and been affected by political, social, and cultural forces. From individual performances to mass demonstrations, music is recognized as a political act and tool that is not simply representative, but also constitutive. Music creates belief systems (politics), examination of development and use of music by social movements, political parties, and nation, 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 non-majors interested in music and 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 perceptual faculty among abeloned philosophical practices are engaged 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.

M73. Music and Religion in Popular Culture. (Formerly numbered Music History M73.) (Same as Ethnomusicology M73.) Lecture, four hours; discussion, one hour. Survey of popular music in religious traditions since the 1970s. Growth of music in Jewish denominations, including Orthodox, Reform, and Conservative, and Christian contemporary music, from evangelical to cross-overs artists performing in mainstream. Credit for 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 variety of jazz styles, from late 19th-century roots to present. Exploration of 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.

79. Dancehall, Rap, Reggaeton: Beats, Rythmes, 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/Paranamanian reggaeton. Introduction to major performers in each genre, examination of stylistic traits associated with each music, and exploration of technologies associated with contemporary music production. P/NP or letter grading.

Upper-Division Courses

101. Issues and Methods in Musicology. (Formerly numbered Music History 101.) Seminar, three hours. Introduction for music history minors to practical aspects and fundamental issues of musicology as academic discipline. How musicologists go about establishing, editing, performing, analyzing, and interpreting musical texts. Exposure to different theories, 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. Re- quisite: 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.

125B. Music, History, and Culture: Era of Empires and Marketplaces. (Formerly numbered Music History 125B.) Lecture, four hours; discussion, one hour. Requisite: course M6B (may be taken concurrently). Course 125B is requisite to 125C, 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 empires and marketplaces, through selected topics, repertoires, and analytical techniques. Letter grading.

125C. Music, History, and Culture: Modern and Postmodern Era. (Formerly numbered Music History 125C.) Lecture, four hours; discussion, one hour. Requisite: course M6C (may be taken concurrently). Course 125C is requisite to 125D, 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 modern and postmodern eras, through selected topics, repertoires, and analytical techniques. Letter grading.

126. Musics, 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.


M136. Music and Gender. (Formerly numbered Music History M136.) (Same as Gender Studies M136.) Lecture, four hours; discussion, one hour. Requisite or corequisite: M6A. 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 rock music; methods in feminist and gay/lesbian theory and criticism. Letter grading.

M137. Lesbian, Gay, Bisexual, Transgender, and Queer Perspectives in Pop Music. (Formerly numbered Music History M147.) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies
with a focus on rock, roll, and rhythm and blues. Credit for both courses 125 and 162 not allowed. Letter grading.

162. Selected Topics in Music of Mozart. (Formerly numbered Music History 161.) Seminar, two hours. Preparation: ability to read music and engage in melodic, harmonic, and formal analysis. Enforced corequisite: attendance, but not enrollment, in course 62 Lecture. Limited to Music History majors and minors. Intensive discussion of selected pieces by Mozart and of certain topics important to fuller understanding of his contributions to musical culture of Enlightenment and as part of contemporary culture. Credit for both courses 62 and 162 not allowed. Letter grading.

163. Bach: Study of Selected Works. (Formerly numbered Music History 162.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 63 lecture. Limited to Music History majors and minors. Examination of Bach’s music in greater depth. Credit for both courses 63 and 163 not allowed. Letter grading.

164. Selected Topics in African American Popular Music of 1960s. (Formerly numbered Music History 163.) 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, separatism, and implications for ongoing 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. Intensive discussion in seminar setting of 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. 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 music 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 used to embody, support, and enact sacredness, including experience of god(s), sense of transcendental, work of liturgy, and intersec- tions of music, politics, and religion. Credit for both courses 72 and 172 not allowed. Letter grading. M173. Selected Topics in Music and Religion in Popu lar Culture. (5) (Formerly numbered Music History M173.) (Same as Ethnomusicology M173.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course M73 lecture. Exploration of connections of music, religion, and popular culture among American Jews and Christians. Credit for both courses M73 and M173 not allowed. Letter grading.

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. Limited to Music History majors and minors. In-depth exploration of issues in analysis and criticism of music in film. Credit for both courses 77 and 177 not allowed. Letter grading.

185. Selected Topics in Rock Roll. (Formerly numbered Music History 185.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 85 lecture. Intensive discussion in seminar setting of selected topics in rock and roll. Credit for both courses 85 and 185 not allowed. Letter grading.


188. Special Courses in Music History. (4) (Formerly numbered Music History 188.) Lecture, four hours. Special topics in music history for undergrad uate students on a temporary basis. Contact the Department of Music for information on specific topics, times, 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 credit noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De signed as adjunct to upper-division lecture course. Ind ividual study contract to explore selected research 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.

190. Research Colloquia in Music History. (2) (Formerly numbered Music History 190.) Seminar, two hours. Designed for senior Music History majors. Describes the methods, theories, and presentation of super vised research. Research presentations will be given in seminar setting with one or more faculty members to help guide capstone projects and share their work with their peers, as well as other faculty members. Enforced corequisite: attendance, but not enrollment, in course 190 lecture. Students expected to present their work and to dis cuss and help critique work of others at similar stage of development. May be repeated for credit. Letter grading.

191A-191P. Junior Variable Topic Research Seminars for Majors. (2) (Formerly numbered Music History 191A-191P.) Seminar, two hours. Designed for junior Music History majors. Special aspects of music of each period studied in depth. Reading, discussion, and research project. May be repeated for credit. Letter grading.

192A-192F. Selected Topics in Musicology. (5) 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 we consume and are consumed by music. Continued attention to issues of bibli ography, personal and group identity, commercialism, musical style, and evolving history of American music and culture in 20th century. Credit for both courses 192A and 192P not allowed. Letter grading.

193. Music History Journal Club Seminars for Majors. (2) (Formerly numbered Music History 193.) Seminar, two hours. Limited to Music History majors. Introduction to discipline through discussion of research and lectures on current topics in field, with focus especially on its practice at UCLA, and addressing research methodologies and development of bibli ographic control. Normally taken in junior year. P/NP grading.

193D. Music History Performance/Analysis Seminars for Majors. (2) (Formerly numbered Music History 193D.) Seminar, two hours. Recommended requisite: course 193C. Limited to Music History majors. Introduction to how music historians engage with issues of musical performance and/or of general questions of historical performance in Western music; proportion of each to be determined by rep ertory and historical context selected by instructor.

193C. Music History Journal Club Seminars for Majors. (2) (Formerly numbered Music History 193C.) Seminar, two hours. Limited to Music History majors. Introduction to discipline through discussion of research and lectures on current topics in field, with focus especially on its practice at UCLA, and addressing research methodologies and development of bibli ographic control. Normally taken in junior 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 reports of their experiences and final project. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Music History. (2 to 4) (Formerly numbered Music History 197.) Tutorial, two hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and 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, four hours. Preparation: completion of minimum of four upper-division music history courses with departmental grade-point average of 3.5 or better and consent of the chairperson of Music History majors. One- to two-term independent research study project under supervision of appropriate faculty member, culminating in department honors thesis of approximately 20 pages. May be repeated for credit. 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 focus on 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 social theory. May include introduction to social theory, materialist theories of culture, postcolonialism, critical theory, or overview of cultural theory or of group of theories selected by instructor, including Marxist theory, cultural theory, structuralism, cultural studies, sociology, historiography, urban studies, anthropology, philosophy, psychoanalysis, poststructuralism, gender, race, and sexuality studies, lesbian, gay, bisexual, transgender, and queer studies, disability studies, and so on. Introduction to set body of theory in its relation to study of music. Letter grading.

200C. Music Aesthetics, Analysis, and Philosophy. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Exploration of selected philosophical aesthetics, 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.

201. Repertory and Analysis. (2) (Same as Music M201.) Seminar, three hours. Designed for graduate musicology students. Coverage of analytical topics that vary from year to year. May be repeated for credit. Meets with course 245; concurrent enrollment in both courses not allowed. Letter grading.

246. Audit Seminar: Analytical/Repertoire Topics. (2) Seminar, three hours. Requisite or corequisite: course 200A. Specific topics vary from year to year. May be repeated for credit. Meets with course 245; concurrent enrollment in both courses not allowed. S/U grading.

247. Seminar: Repertoire/Analytical Topics. (4) Seminar, three hours. Designed for graduate musicology students. Coverage of analytical topics that vary from year to year. May be repeated for credit. Meets with course 245; concurrent enrollment in both courses not allowed. S/U grading.

250. Seminar: Theoretical Topics. (4) Seminar, three hours. Designed for graduate musicology students. Coverage of theoretical topics that vary from year to year. May be repeated for credit. Meets with course 251; concurrent enrollment in both courses not allowed. Letter grading.

255. Seminar: Historical Topics. (4) Seminar, three hours. Designed for graduate musicology students. Coverage of topics that vary from year to year. May be repeated for credit. Meets with course 256; concurrent enrollment in both courses not allowed. Letter grading.

256. Audit Seminar: Historical Topics. (2) Seminar, three hours. Requisite or corequisite: course 200A. Specific topics vary from year to year. May be repeated for credit. Meets with course 256; concurrent enrollment in both courses not allowed. S/U grading.

259. Audit Seminar: Mapping Sonic Urban Geogra- phy of Los Angeles in 1940s. (2) Seminar, three hours. Limited to departmental graduate students and those in Urban Humanities Certificate Program. Exploration of methodologies and conceptual frameworks for mapping sonic urban geography of Los Angeles in 1940s. In-depth critical discussion of current theories of music and space and of most recently developed methodologies for understanding ethnoarchaeological and anthropological study of sound, including recording and mapping soundscapes. May not be applied toward MA or PhD degree requirements. May be repeated for credit. Meets with course 260; concurrent enrollment in both courses not allowed. S/U grading.

260. Mapping Sonic Urban Geography of Los An- geles in 1940s. (4) Seminar, three hours. Limited to departmental graduate students and those in Urban Humanities Certificate Program. Exploration of methodologies and conceptual frameworks for mapping sonic urban geography of Los Angeles in 1940s. In-depth critical discussion of current theories of music and space and of most recently developed methodologies for understanding ethnoarchaeological and anthropological study of sound, including recording and mapping soundscapes. Letter grading.

261. Topics in Performance Practice. (4) Seminar, three hours. Designed for graduate students. Investigation of primary source readings in performance practices across history of Western music; analytical reports and practical applications in class demonstrations. May be repeated for credit. Letter grading.

255. Seminar: Historical Topics. (4) Seminar, three hours. Designed for graduate musicology students. Coverage of historical topics that vary from year to year. May be repeated for credit. Meets with course 251; concurrent enrollment in both courses not allowed. S/U grading.

265. Teaching Western Musical Canon. (1) Seminar, three hours. Workshop series designed to prepare graduate musicology students to teach Western musical canon at undergraduate level. May be repeated for credit. S/U grading.

266. Research Topics in Musicology. (2 to 4) Seminar, two to four hours. Preparation: consultation with instructor. Designed for graduate musicology students. Advanced study and analysis of current topics in musicology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

275. Teaching Apprentice Program. (2 to 4) Seminar, two hours. Limited to second-year graduate musicology students and students with master's degrees. Development of advanced knowledge and bibliographic control in three historically separate areas of musicological specialization. May be repeated for credit. S/U grading.


C490T. Early Music Ensemble. (4) Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from historical periods prior to 1800. Early instruments may be used at instructor's discretion. May be repeated for credit without limitation. May be concurrently scheduled with Music History CM282 and S/U or letter grading.

495. Introductory Practicum for Teaching Appren- tices in Musicology. (4) Seminar, three hours. Preparation: appointment as teaching apprentice in Music or Musicology Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching music at college level. May not be applied toward degree requirements. S/U grading.

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 Examina- tion 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) Tu- torial, to be arranged. Preparation: advancement to PhD candidacy. Limited to graduate students. May be repeated for credit. S/U grading.

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.

Navy/Marine Corps ROTC Program

The Department of Naval Science provides professional training for students leading to an active duty commission at graduation in the U.S. Navy or Marine Corps. Through the Naval Reserve Officers’ Training Corps (NROTC), scholarship students receive full tuition, fees, books, and subsistence pay of $250 to $400 per month, plus 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, is a four to five intensive Marine training at Officer Candidate School in Quantico, VA. Marine Corps option students also participate, on a limited basis, in field training exercises during the academic year.

Navy Science

Lower-Division Courses

Z. 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 the following:

1A. Introduction to Naval Science. (3) Lecture, three hours. Introduction to organization of Naval Service, various components of Navy, career opportunities, shipboard damage control, fire fighting, Naval and Marine Corps operations, and some customs and traditions of Naval Service. Letter grading.

1B. Naval Ship Systems I. (4) Lecture, four hours. Introduction to naval engineering, with emphasis on steam, nuclear, diesel, and gas turbine propulsion systems and their associated components. Basic thermodynamic theory, electrical theory, stability, and buoyancy. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20A. Naval Ship Systems II. (4) Study of naval weapon systems, with emphasis on infrared, radar, and sonar principles. Target designation and acquisition, methods of solving fire control problem, target detection systems. Analysis of transfer and feedback systems and limits. P/NP or letter grading.

2OB. Seapower and Maritime Affairs. (3) Lecture, three hours. Conceptual study of seapower, with emphasis on historical development of naval and commercial power. Seapower examined in relation to economic, political, and cultural factors, with focus on current abilities of specific nations to use oceans to attain national objectives. P/NP or letter grading.

Upper-Division Courses


102B. Naval Leadership and Management I. (4) Examination of current and classical leadership and management theories, with emphasis on their application to junior military officer’s role as a leader/manager. Topics include managerial functions, performance appraisal, motivation theories, group dynamics, leadership theories, and their associated auxiliary conditions.

102C. Leadership and Ethics. (4) Lecture, four hours. Recommended requisite for Naval Science ROTC midshipmen: course 102B. Capstone and second of two core courses that provide academic foundation of NROTC leadership development. Integration of intellectual exploration of Western moral traditions and ethical philosophy with military leadership, core values, professional ethics, Uniform Code of Military Justice, and Navy regulations.

103. Evolution of Warfare. (4) Study of evolution of warfare, including historical and comparative consideration of influence that leadership, political, economic, and sociological and technological development factors have had on warfare and influence they continue to exert in age of limited warfare.

104. Fundamentals of Maneuver Warfare. (4) Seminar, four hours. Study of fundamentals of maneuver warfare, with particular emphasis on doctrine, tactics, and equipment used. Examination of topics through study of political and military objectives by focusing on historical examples from Revolutionary War to modern times. Examination of contemporary doctrine through study of recent operations. Letter grading.

197. Individual Studies in Naval Science. (1 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. As-
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 Turkic. To meet increasing demands for a knowledge of this area and its past and present, it treats each language in a wide perspective—as a means of communication, as a vehicle of a cultural heritage, as a research tool for the area, and as an object of research itself.

Undergraduate majors may be taken in Ancient Near East and Egyptology, Arabic, Iranian Studies, Jewish Studies, and Middle Eastern Studies. 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, 310-825-4995; for UCLA-affiliated excavations, contact the departmental academic counselor at 310-825-4165.

Arabic BA

Learning Outcomes

The Arabic major has the following learning outcomes:

- Demonstrated written and oral mastery of the Arabic language
- Demonstrated knowledge of other Arabic dialects such as Iraqi, Egyptian, etc.
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Ability to read texts in Arabic, and to analyze the language and cultural context
- Identification, evaluation, and analysis of historical monuments, time periods, vocabulary, concepts, and historical figures
Preparation for the Major
Required: Arabic 1A, 1B, 1C, and History 9D or Middle Eastern Studies 50C.

Transfer Students
Transfer applicants to the Arabic major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Arabic.

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

The Major
Required: Eleven courses, including (1) Arabic 102A and 102B or 102C or 108, 150 or M151, Islamic Studies M110 and (2) six courses from Anthropology M166Q, Arabic 103A, 103B, 103C, 105, M106, M107, M110, M111A, 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, 1115B, C120. Comparative Literature 100, History 105A, 105B, 105C, M106, 108B, M111A, 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, 140A, 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, 110A, 110B, 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 109, History 191F, Iranian 130, 131, Political Science 121A, 132A, M132B, Semiotics 130, Study of Religion 120, Yiddish 101A, 101B, 101C, 102A, 102B, 102C, 121A, 121B, 121C, 130, 131A, 131B, 131C.

Students are encouraged to take a research tutorial within Jewish Studies 197 or 199. A maximum of two 197 or 199 courses (8 units total) may be applied toward the major.

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 minor. No course for the minor or preparation for the minor may be taken on a P/NP grading basis. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

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 are 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 (10 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 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: (1) language—Arabic 103A, 103B, 103C, Hebrew 103A, 103B, 103C, 111A, 112, (2) literature, arts, and culture—Arabic 120, M123, 130, M145, Hebrew M112, C140, Jewish Studies M150A, 150B, 151B, M162, 175, Middle Eastern Studies C122, (3) politics—Political Science 120B, 132A, M132B, 157, (4) regional and historical setting—History 105A, 105B, 105C, Study of Religion 110, 120. A maximum of 4 graded units of special studies courses (197, 198, 199) approved by the department may be applied toward the minor. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Middle Eastern Studies Minor
The Middle Eastern Studies minor is designed for students who wish to augment their major program in the College of Letters and Science with a group of related courses from various linguistic, literary, archaeological, and historical disciplines of the Near East, from ancient Egypt, Mesopotamia, and biblical studies to the modern Arabic, Armenian, Iranian, Jewish, and Turkish world.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 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:


Students may not substitute a core or elective course with a departmental independent study/directed research course (197, 198, or 199).

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

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

Graduate Degrees
The Department of Near Eastern Languages and Cultures offers Master of Arts (MA), Candidate in Philosophy (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 Ugartic courses.

Lower-Division Courses

**10W. Jerusalem: Holy City.** (8) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 10W. Survey of religious, political, and cultural history of Jerusalem over three millennia as symbolic focus of three faiths: Judaism, Christianity, and Islam. 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 modern two-state experience and experiment. Satisfies Writing II requirement. Letter grading.

**12W. Jerusalem: Holy City.** (8) Seminar, four hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 10W. Survey of religious, political, and cultural history of Jerusalem over three millennia as symbolic focus of three faiths: Judaism, Christianity, and Islam. 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 mythic Jerusalem 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.** (8) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3. Overview of history of medicine and sciences, focusing especially on Ancient Near East, China, and Meso-America. Satisfies Writing II requirement. Letter grading.

**15W. Women and Power in Ancient World.** (8) Lecture, four hours; discussion, one hour. Examination of how feminine power confronts masculine dominance within complex social systems in ancient world. To gain political power, some female rulers used their sexuality to gain access to important men. Other women gained their position as regents and helpers of masculine kings who were too young to rule. Others denied their femininity in dress and manner, effectively androgynizing themselves or pretending to be men so that their feminity would not be obstacle to political rule. Many women were forced to gain throne at end of dynasties after male line had run out entirely, or in midst of civil war when patrilineal successions 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, monothemonism, and urban societies. Letter grading.

**M50B. Origins of Judaism, Christianity, and Islam.** (6) Same as Middle Eastern Studies M50B and Religion M50B.) Lecture, three hours; discussion, one hour. Examination of three major monotheisms of Western cultures—Judaism, Christianity, and Islam—historically and comparatively. Development of religious ideas, 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 grade, P/NP or letter grading.

89. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as a survey of Egyptian art and architecture with lecture or a seminar. P/NP or letter grading.)

89HC. Honors Contracts. (1 Tutorial, three hours. Limited to students in College Honors Program. Designed as an advance to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.)

90. 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 work on 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

CM101A. Art and Architecture of Ancient Egypt, Predynastic Period to New Kingdom. (4) Same as Art History M110A. 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 M110B. Lecture, three hours. Study of architecture, sculpture, painting, and minor arts from New Kingdom to Greco-Roman period. Concurrently scheduled with course C267B. P/NP or letter grading.

M101C. Ancient Egyptian Temple and City of Thebes. (4) Same as Art History M110C. Lecture, four hours; field trips and visits to ancient city of Thebes (modern day Luxor). Theban temples are some of best-preserved cult buildings in all of Egypt, and study illuminates traditions of artistic representation of the dead and development of social and political transformations echoed throughout all of ancient Egypt. Investigation of ritual linking of temples on Nile's eastern and western banks through festival and political transformations echoed throughout all of Egypt, and their study illuminates traditions of artistic representation of the dead. May be repeated for credit. May be applied toward honors credit for eligible students. P/NP or letter grading. (Same as History M101A-M101B-M101C. Lecture, three hours; discussion, one hour (when scheduled). P/NP or letter grading. M110A. History of Achaemenid Empire. From end of Elam and rise of Medes to Macedonian conquest of Achaemenid Persia. Emphasis on political history, state structure, empire's religions, and Greco-Persian interactions. Focus on Cyrus' empire and Darius' world order, age of Persian Wars, Cyrus the Younger, Achaemenid Egypt, Alexander's conquest. M110B. History of Arslanid (Parthian) Empire. From Hellenistic rule in Persia to Sassanian conquest. Emphasis on political history, state structure, empire's religions, interactions with Hellenistic and Roman worlds. Further accent on Parthian conquest of Iran and Mesopotamia, Seleucid demise and Arslan hegemony in East, Sassanian-Roman wars, rise of Sassanians. M110B. History of Early Sassanian Empire—From Ardashir I to Peroz (circa 224–459 CE). From fall of Ardashir to Muslim conquest of Iran. Emphasis on political and economic history, evolution of state structure, empire's religious landscape (Manichaean, Zoroastrian, Achaemenid Zoroastrianism, Mithraism, Persian, Mazdakism), Persian and Roman/BYZantine interactions, Persia and East. Further accent on Persian-Roman conflicts and cooperation, Persia and Huns. M120A-120B-120C. Elementary Ancient Egyptian. (5–5–5) Lecture, five hours. Course 120A is requisite to 120B, which is requisite to 120C. P/NP or letter grading. M120A. Introduction to hieroglyphic script and phonology and morphology of Middle Egyptian. Basic rules of Middle Egyptian syntax, with focus on nominal, adjectival, and adverbial sentences. M120B. Verbal system and syntax of verbal sentences of Middle Egyptian. Reading of authentic Egyptian texts to develop understanding of basic grammatical structures and to acquire familiarity with aims and methods of philology, study of ancient texts. M121A-121B-121C. Intermediate Ancient Egyptian Readings. (5–5–5) Lecture, three hours. Course 121A is requisite to 121B, which is requisite to 121C. Thematic readings in ancient Egyptian historical, religious, and literary texts. May be repeated for credit. P/NP or letter grading. M122. Elementary Ancient Egyptian Grammar. (2 Formerly numbered 8) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Egyptian to qualify for more advanced course equivalent to courses 120A, 120B, and 120C. Introduction to hieroglyphic script and phonology and morphology of Middle Egyptian, with emphasis on verbal systems, pronunciation, reading, and grammar. Offered in summer only. P/NP or letter grading. M123A-C. Coptic, (5–5) Lecture, three hours. Introduction to Coptic, final phase of Egyptian language which is attested from 3rd to 1400 CE. Concurrently scheduled with courses C223A-C223B. P/NP or letter grading. M124A. De- toured to learning Coptic alphabet, grammar, and voiceless, consonants, vocalic, and consonantal oppositions of historical linguistics. M123B. Requisite: course C123A. Introduction to variety of Coptic textual genres, from hagiographies to homilies, magical spells, private letters, legal, medical, and liturgical Gospels found in Nag Hammadi. Readings in texts in dialects other than Sahidic (Bohairic, Fayumic, Akhmimic).

124. Middle Egyptian Technical Language. (4) Lecture, three hours. Intensive course equivalent to CM124A. P/NP grading. M125A. Digital Cultural Mapping Core Course A: Place, Time, and Digital World. (4–4–4) Lecture, three hours; discussion, one hour. Introduction to how emerging digital mapping technologies like geographic information systems (GIS), virtual globes, and web-based mapping systems can be used to create new means of inquiry in the humanities and social sciences. Provides students with critical apparatus needed to effectively, responsibly, and heuristically use technology in digital cultural mapping projects. Analysis of different forms of visual presentation, with focus on data representation through mapping, reasoning, and argumentation to learn to critically assess map-based presentations. Tracing of history of mapping and spatial representation of place to learn how mapping has always been connected with societal structures, politics, economics, and culture because maps not merely represent reality but pro-duce reality by structuring and organizing knowledge about it. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

M125B. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypercubes, and Timelines. (4) Same as Architecture and Urban Design M125B. Laboratory, three hours; discussion, one hour. Enforced requisite: course 125A. Hands-on laboratory-based investigation of emerging digital mapping technologies, including construction in Virtual Globes, geographic information systems (GIS), virtual globes, and web-based mapping systems. Emphasis on data representation through mapping, reasoning, and argumentation to learn to critically assess map-based presentations. Tracing of history of mapping and spatial representation of place to learn how mapping has always been connected with societal structures, politics, economics, and culture because maps not merely represent reality but pro-duce reality by structuring and organizing knowledge about it. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

M125C. Research Mapping Project. (4) Same as Architecture and Urban Design M125C. Laboratory, three hours; fieldwork, one hour. Enforced requisite: course M125B or Architecture and Urban Design M125B. Participation in an open-ended research project in digital cultural mapping (DCM) research project in humanities or social sciences using skills learned in courses 125A and 125B. Gathering and input of datasets from real-world sources. Creating visual presentations 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.
150A-150B. Survey of Near Eastern Literatures in English. (4-4) Lecture, three hours. Each course may be taken independently for credit. P/NP or letter grading. 150A. Mesopotamia/150B. Egypt. Preparation: familiarity with Egyptian history. Enforced requisites: courses M103A, M103B. Survey of 3,000 years of ancient Egyptian literature. Reading of Egyptian texts in transliteration to study Egyptians' intellectual history and trace transformations in its construction of cultural identity. Topics include invention of writing, autobiography, wisdom texts, narratives, royal inscriptions, and hymns. Discussion of text analysis such as narratology.


162. Archaeology, Identity, and Bible. (5) Lecture, three hours; discussion, one hour. Introduction of archaeological record of southern Levant (ancient Israel) from prehistoric through Achaemenid period (ca. 2500-332 BC) with current understandings of genre, authorship, and historical value of Hebrew Bible. Ancient Israelite identities are tracked through combination of archaeological and textual sources. Social, religious, and political traditions of ancient Israel and Judah are interpreted in context of both earlier Bronze Age traditions and Israel's Iron Age neighbors. Archaeological and textual data for Israelite identities, such as Amorites, Canaanites, Phoenicians, Egyptians, Assyrians, and Babylonians, form basis for evaluating construction and maintenance of various identities. Introduction to theoretical and methodological issues involving historical archaeology of ancient Israel and Levant, and possibilities for investigating negotiation of identity in archaeological record. P/NP or letter grading.

CM163. 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 CM100X lecture 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 CM100X lecture 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 Nubia, with focus on ancient visual materials—both objects and architecture—from Predynastic to Roman periods, P/NP or letter grading.

M167. Magic in Ancient World. (4) (Same as Classics M167.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: Classics 10 or 20. Exploration of role of magic in cultures from earliest times to present. Consideration of narrative exhibit and how objects and artifacts relate to magical rituals and practices. P/NP or letter grading.

M168. Introductory Hittite. (4) (Same as Indo-European Studies M168) Lecture, two hours; recitation, one hour. Recommended preparation: knowledge of language with case system. Introduction to Hittite grammar by series of graded lessons covering morphology 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 embezzled them in their scholarly publications or theoretical models. Systematic instruction in digital data management. Basic evaluation of analysis of materials (including geological and biochemical techniques), and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM269. P/NP or letter grading.


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 Representation: Creating Fowler and Virtual Exhibit. (4) (Same as Art History M179.) Lecture, three hours; discussion, one hour. Exploration of what it takes to run museum and connection to different types of museum work, ranging from collecting and curation, to research, conservation, presentation, visitor experience, and management. Students jointly create exhibit based on Fowler Museum collection. Students research and discuss context and different stakeholders that relate to material under consideration. Consideration of narrative exhibit and how objects and their arrangement convey deliberate or accidental messages. Consideration of audiences as well as original context of each object. Focus on people behind objects, technologies, or material characteristics. P/NP or letter grading.

M185D. Religions of Ancient Near East. (4) (Same as History M185D and Religion M185D) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Main polytheistic systems of ancient Near East, with emphasis on Mesopotamia and Syria and to reference to religion of ancient Israel: varying concepts of divinity, hierarchies of gods, prayer and fertility rites, wisdom, and moral conduct. 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 credit 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 reading, papers, or other activities, and graded for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Individual Studies in Ancient Near East. (2 to 4) Seminar, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assessment and mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Ancient Near East. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. downhill paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M201. Archaeological Research Design. (4) (Same as Anthropology M201C and Archaeology M201C) Seminar, three hours. Requisites: Archaeology M101A, M101B. How to design archaeological projects in preparation for MA thesis or Ph.D. phase. Students design exploratory research to select subject, then write research design that could form basis for external 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 theoretical 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-sacid, and Sasanian history. May be repeated for credit. S/U or letter grading.

210. Late Egyptian. (4) Lecture, three hours. Requisites: courses 121A, 121B, 121C, Late Egyptian grammar and reading of both hieroglyphic and hieratic texts. May be repeated for credit. S/U or letter grading.

211A-211B. Egyptian Texts of Greco-Roman Period. (4-4) Lecture, three hours. Introduction to grammar and orthography of hieroglyphic texts from Greco-Roman temples and tombs 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 literature through close readings of texts in original language and evaluation of current scholarship on these texts. Students hone their knowledge of Middle Egyptian grammar and 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 orthography. Reading of texts from various genres. May be repeated for credit with topic change. S/U or letter grading.

C223A-C223B. Coptic. (5-5) Lecture, three hours. Introduction to Coptic, final phase of Egyptian language, which is attested in writing from circa 300 to 1200 CE. Concurrently scheduled with courses C123A-C123B, S/U or letter grading. C223A. Devoted to learning Coptic alphabet, grammar, and vocabulary (Sahidic dialect), with particular emphasis on historical linguistics. C223B. Requisite: course C223A. Introduction to variety of Coptic textual genres, from
hagiographies to homilies, magical spells, 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.


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, two hours. May be repeated for credit. S/U or letter grading.

261. Practical Field Archaeology. (2 to 8) Fieldwork, two hours. Participation in archaeological excavations or other archaeological research in Near East under staff supervision. May be repeated for credit. S/U or letter grading.

262. Seminar: Object Archaeology. (4) Seminar, two hours; laboratory, one hour. Selected topics in analysis and interpretation of Near Eastern archaeological finds in museum collections. Students work with objects in 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 stelae, monumental inscriptions, or pertinent socio-economic texts. May be repeated. S/U or letter grading.

264. Egyptian Museum Collections. (4) Seminar, two hours; research group meeting, one hour. Ancient Egyptian museum collections around world, data sets, provenance and dating studies, collection history and agenda, museology, and exhibition history. May be repeated for credit with consent of instructor. S/U or letter grading.

M265. Depositional History and Stratigraphic Analysis. (4) (Same as Archaeology M265.) Lecture, two hours. Theoretical understanding of depositional processes ("lithofacies") 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 paleontology 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 through New Kingdom. (4) 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. Honors content noted on transcript. 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 CM2102.) Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology to implement them and to appreciate and evaluate results. Emphasis on empowerment of 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.

270. Old Egyptian. (4) Seminar, three hours. Enforced requisites: courses 120A, 120B, 120C, or one year of introductory Middle Egyptian. Advanced reading class in Old Egyptian, earliest of five Egyptian language phases, to prepare students for independent research on Egyptian texts dating to Old Kingdom (circa 2800 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, legal texts, and paintings.

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. P/NP or letter grading.

8. Elementary Standard Arabic: Intensive. (12) Lecture, 10 hours; discussion, one hour. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intermediate formal Arabic, including listening, speaking, reading, and writing. Offered in summer only. 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 M107 and Religion M107.) Lecture, three hours. Honors content noted on transcript. Letter grading.

M107. Islam in West. (5) (Same as Islamic Studies M107 and Religion M107.) Lecture, three hours; discussion, one hour. Acquisition of understanding of basic 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 historical and cultural contexts and institutions in U.S. Development of strong analytical writing and speaking skills. P/NP or letter grading.

108. Summer Intensive Intermediate Arabic. (12) Lecture, and discussion, 20 hours. Enforced requisites: courses 1A, 1B, 1C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intermediate course equivalent to courses 102A, 102B, 102C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intermediate formal Arabic, including listening, speaking, reading, and writing. Offered in summer only. P/NP or letter grading.

C230. Seminar: Ancient Syria/Palestine. (4) Seminar, 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
trends, contemporary indigenous storytelling prac-
tices, and role of this genre in modern Arabic society.
Possibilities of reading or discussing Arabic femi-
nal literature, non-Islamic religious traditions, and
secular works.

117. Summer Intensive Elementary Egyptian Ara-
bic. (4-4-4) Lecture, three hours. Study of Egyptian
colloquial spoken by spoken prehistorical
abic dialect of Egypt. Training in listening, speaking,
and reading. P/NP or letter grading.

112A-112B-112C. Advanced Spoken Egyptian Ara-
bic. (4-4-4) Lecture, three hours. Study of Egyptian
colloquial spoken by spoken prehistorical
abic dialect of Egypt. Training in listening, speaking,
and reading. P/NP or letter grading.

116A-116B-116C. Elementary Arabic Islamic. (5-5-5)
Lecture, five hours. Course 116A is requisite to 116B,
which is requisite to 116C. Introduction to dialect of
Arabic spoken in contemporary Iraq, with emphasis
on conversational proficiency, Recognition and pro-
duction of sounds of Arabic and basic vocabu-
lar, grammar, idiomatic expressions, and relevant
cultural factors through dialogues and other
conversational exercises. P/NP or letter grading.

120. Islamic Texts. (4) Lecture, four hours. Requi-
site: course 103C. Readings from Qur'an, Tafsir,
Ibn Khaldun's Monographs (medieval religion, medicine, philosoph-
y) and monographs. Letter grading.

123. Oral Literature and Performance of Arab World. (4)
(Same as Comparative Literature M123.) Lecture,
three hours. Knowledge of Arabic not required.
Introduction to study of living oral traditions of
troubadours, storytellers, oral poets, and performers
in Arabic-speaking Middle East. P/NP or letter
grading.

130. Classical Arabic Texts. (4) Lecture, four hours. Requi-
site: course 103C. Readings from premodern
literary texts, with grammatical and syntactical analysis.
May be repeated for credit. Letter grading.

132. Philosophical and Kalam Texts. (4) Lecture, three
hours. Requisite: course 120. Readings in pre-
modern philosophy and theology. May be repeated
for credit. P/NP or letter grading.

141. Modern Arabic Literature. (4) Lecture, three
hours. Requisite: course 102C. Conducted in English
and Arabic, with all required readings in original Ar-
bic. Explores recent trends in modern Arabic literature,
variously organized across or around particular trends,
genres, topics, canonical authors, regional, or national
literatures, mixing thematic and formal analyses of lit-
ery and critical texts and making use of film, video-
clip, and song in approaching literary culture. May be
repeated for credit. Concurrently scheduled with
course C241. Letter grading.

142. Arabic Media. (4) Lecture, four hours. Requisite:
course 103A. Development of facility with language
of Arabic press and broadcasting. Activities include
monitoring current materials via Internet; transcribing;
translating, and summarizing; writing original reports
in Arabic; and oral presentations and discussions.
May be repeated for credit. P/NP or letter grading.

148. Contemporary Arab Film and Song. (4) (Same as Comparative Literature M148.) Seminar, three
hours. Exploration of conjunctions between
contemporary Arab film and song and between pop-
cular cultures and cultures of commitment (filzan),
with possible focus on specific genres such as realism/necrorealist Arab film; feminist Arab film or popular Arab
film and song; topics such as nation, gender, and rep-
resentation or democracy and human rights or cen-
sorship, reception, and resistance. Examination of
various of national cinemas such as Tunisian, Egyptian,
Moroccan, Algerian, and Palestinian. Var-
ious musical genres such as Raï, Mizoued, and Hip-
hop also examined. Enforced requisites: course 1C or 8. Course 111A is enforced requisite to 111B, which is enforced requisite to 111C. Not
suitable for heritage speakers. Introductions to spoken Ar-
bic dialect of Egypt. Training in listening, speaking,
and reading. P/NP or letter grading.

150. Classical Arabic Literature in English. (4) Lec-
ture, three hours. Readings in English; knowledge of
Arabic not required. Survey of premodern Arabic cul-
tural production in its political, religious, and social
contexts. Coverage of pre-Islamic Arabia, rise of
Islam, and major themes of Southwest Asian history,
along with significant figures and moments in litera-
ture and culture of pre-Arabic period. Consideration
of selected modern responses to Arabian tradition,
P/NP or letter grading.

151. Modern Arabic Literature in English. (4) (Same as Comparative Literature M151.) Lecture,
three hours. Designed for upper-division literature ma-
jors. Topics may include constructions of otherness in
modern Arab culture; East-West debate; memory, trauma, narrative, and ethics; 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.

155. Al-Andalus: Literature of Islamic Spain. (4)
(Same as Comparative Literature M119.) Lecture,
three hours. Study of literature of Islamic Spain to
learn and utilize Arab and Western and Ar-
bic and Jewish cultures and to recognize Islamic cul-
ture as vital force in European life and letters. P/NP or
letter grading.

171. Culture Area of Maghrib (North Africa). (4)
(Same as Anthropology M166G and History M108C.)
Lecture, three hours. Designed for juniors/seniors. In-
roduction to North Africa, especially Morocco, Al-
geria, Tunisia, and Libya, also known as Maghrib or
Maghreb, and song in approaching literary culture. May be
repeated for credit. Letter grading.

180. Linguistic Analysis of Arabic. (4) Lecture,
four hours. Requisite: course 102C. Linguistic
description of Arabic in both its modern standard and dialect
dialects. Introduction to Arabic phonology, morphology, and
syntax and to linguists' approaches to specific problems posed by
Arabic grammar and dialectology. Letter grading.

181. Translating Arabic. (4) Seminar, three
hours. Preparation: advanced proficiency in English and Ar-
bic (at least three years of Arabic instruction or
equivalent). Open to both native and nonnative
speakers of English and Arabic. Training of students
in methodology of translation from Arabic into En-
lish, with focus on producing accurate and readable
English versions of Arabic texts from variety of fields.
Close reading and written translation of Arabic texts,
with emphasis on both oral and written translation.
Topics also explored: translation ethics, styles of
translation, and translation theory. May be repeated
for credit. 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 literature course.
Individual study with lecture course instructor to explore
topics in greater depth through supplemental read-
ings, papers, or other activities. May be repeated for
maximum of 4 units. Individual honors contract re-
quired. Honors content noted on transcript. Letter
grading.

197. Individual Studies in Arabic. (2 to 4) Tutorial,
one hour. Limited to juniors/seniors. Individual inten-
sions; with scheduling in consultation with faculty
member and student. Assigned reading and tangible evidence of mastery of subject
matter required. May be repeated for credit. Indivi-
dual contract required. P/NP or credit.

199. Directed Research or Senior Project in Ara-
bic. (2 to 4) Tutorial, one hour. Limited to juniors/se-
niors. Supervised individual research or investigation under guidance of faculty member. Culminating paper or project required. May be repeated for credit.
Indi-
vidual contract required. P/NP or letter grading.

Graduate Courses

220. Seminar: Islamic Texts. (4) Seminar, three
hours. Major Islamic thinkers and their works from
classical period to modern times. Coverage of doc-
trines and hermeneutics of various schools of thought
in Islam, such as Ahl al-sunna wa'l-jama'a, Shi'a,
Mu'tazila, and Sufis. May be organized around one
author and his works, multiple authors and their
works, or specific topics with representative readings
from various schools. Exploration of secondary litera-
ture in Arabic and other languages for relevant
research papers. May be repeated for credit.
S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) (Same as Hebrew
M231.) Lecture, three hours. Requisites: course 102C,
Hebrew M108C. Reading and interpretation of Ar-
bic-Arabic texts by Maj-
nonides (medieval religion, medicine, philosophy)
and more recent texts in Judeo-Arabic dialects of Iraq and
Egypt, with discussion of grammar and decla-
sions from forms of classical Arabic. S/U or
letter grading.

240A. Seminar: Arab Historians. (4) Seminar, three
hours. Introduction to very large body of literature on
medieval Islamic history. Selected readings in Arabic
that represent cross-section of Islamic historical writ-
ings, including Ibn Ishaq's Siraj, Waqqi' Maghzai,
Baladurah's Futuh, Tabari's Tarikh, digests of Ya'qubi
and Mas'udi, Ibn Khaldun's Muqaddima, and Ma-
donides' toponymy. Historical texts will be used to deter-
mine their reliability as sources or their view of history
and its theoretical foundations. Exploration of sources, historiography, 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 geographic
graphs written during over number of disci-
plines and various aspects of geography, such as
Surat al-ard, Kitab al-Buldan, al-Masalik wa'l-mamalik,
topolography, and travel accounts. May be repeated for
credit. S/U or letter grading.
241. Modern Arabic Literature. (4) Lecture, three hours. Requisite: course 102C. Conducted in English and Arabic, with all required readings in original Arabic only. Readings in modern Arabic literature, variously organized across or around particular genres, topics, canonical authors, regional, or national literatures, mixing thematic and formal analyses of literary and critical texts and making use of film, video-clip, and song in approaching literary culture. May be repeated for credit. Concurrently scheduled with course C141. Letter grading.

250. Seminar: Premodern Arabic Literature. (4) Seminar, three hours. Readings in Arabic texts from variety of periods and genres along with appropriate secondary literature. Topics include pre-Islamic poetics and oratory, Qur’an, Umayyad and Abbassid poetics and literary prose, Hadith and Fiqh, historiography, biography, geography, medicine, mathematics, theology, asceticism, and mysticism. May be repeated for maximum of 24 units. S/U or letter grading.

251. Seminar: Modern Arabic Literature. (4) Seminar, three hours; discussion, one hour. Requisite: course C141. Selected topics in the modern and contemporary arts of the Arab world. Includes trade press, non-fiction, poetry, short stories, and novels. Conducted in English and may be repeated for credit. Letter grading.

255. Literatures and Cultures of Maghreb. (4) (Same as Comparative Literature M251.) Seminar; three hours. Limited to 20 undergraduate students. Examination of traditionally diverse literatures of Maghreb in their multiple and competing contexts of language and gender politics, religious and cultural formations, Pan-Arabian nationalism and European imperialism, and in English translations from different Maghrebian languages (Arabic, Berber, 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.

275. Encountering Arabic Manuscripts: Introduction to Arabic Paleography and Critical Edition of Manuscripts. (4) Lecture, three hours; discussion, one hour. Requisite: course 103C. Introduction to Arabic paleography and how to prepare editions of medieval manuscripts containing Arabic philosophical and scientific works. During past decades enormous number of previously unknown Arabic manuscripts have been discovered. While vast range of medieval texts have been published in varying quality, vast large number of manuscripts remain unpublished. UCLA has outstanding collections of Near Eastern manuscripts in Arabic, Persian, and Ottoman Turkish, primarily for use in teaching medicine, literature, philosophy, theology, law, and history. It is rich in works related to studies of theologians and scholars at different centers of learning in Iran during Safavid period noted for works of Shiite theology, Islamic sciences, and philosophy. Course opens this treasure to graduate students interested in editing and/or translating manuscripts. S/U or letter grading.

282. Modern Arab Thought. (4) (Same as Comparative Literature M282.) Seminar, three hours. While much has been written and said about resurgence and spread of political Islam after collapse of ideology of secular nationalism and failure of Arab left to apprehend emerging challenges to Arab future at a critical moment, little has been devoted to less sensational topic of modern Arab thought despite unmistakable proliferation of critical output produced by Arab thinkers and writers. Coverage will include early 19th century Arab writers and foes and insightful approaches to unlikely coexistence in Arab contemporaneity of ever-deepening and generalized crisis and of steady and consolidated development of a new effervescence of cultural and artistic production. S/U or letter grading.

496. Arabic Language Pedagogy Course. (2) Seminar, three hours. Taught in English and Arabic. Discussion of multiple topics pertaining to Arabic language teaching and learning. Content designed to address Arabic language pedagogy, with emphasis on practical issues and applications of different language teaching methodologies. Activities include lectures, classroom observations, and teaching demonstrations. Participants collaborate on projects that investigate their context and needs of their students and adapt their teaching techniques, skills such as listening, speaking, reading, and writing. S/U grading.

596. Directed Individual Study. (2 to 8) Tutorial, one hour. May be repeated for credit. S/U grading.

597. Examination Preparation. (2 to 8) Tutorial, one hour. May be arranged. S/U grading.


Armenian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Limited to 20 undergraduate students. Introduction to current intellectual topics, historical and cultural themes and transformation of rise and fall of unique form of Armenian polity established outside homeland and examination of attempts at reconstructing major features of history of Armenian language as reflected in literature created in Armenian throughout written period (5th through 20th centuries). Use of top-down approach beginning with modern state of Armenian language in its two standard versions (Western and Eastern), then retracing of historical development through formation of New Armenian (17th century), Modern Armenian (17th through 20th centuries), and earliest attested form, Grabar, literary version of ancient Armenian (11th through 5th centuries), Discussion of attempts at reconstructing major features of Armenian phonology and morphology in preliterary period. P/NP or letter grading.

10A. History of Armenian Language. (4) Lecture, three hours. Requisite: course 1C or 4C. Exploration of history of Armenian language as reflected in literature created in Armenian throughout written period (5th through 20th centuries). Use of top-down approach beginning with modern state of Armenian language in its two standard versions (Western and Eastern), and fostering insightful approaches to unlikely coexistence in Armenian contemporaneity of ever-deepening and generalized crisis and of steady and consolidated development of a new effervescence of cultural and artistic production. 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. 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.

104A-104B-104C. Elementary Modern Eastern Armenian. (5–5–5) Lecture, five hours. Recommended requisite to 104B, which is recommended requisite to 104C. Students with knowledge of Western Armenian should contact instructor to determine appropriate enrollment level. Designed for students with little or no prior knowledge of Eastern Armenian in following areas of competency: fluency, accuracy, and proficiency. Use of language to engage literary themes and cultural issues of historical and contemporary significance for Armenian speakers. P/NP or letter grading.

105A-105B-105C. Intermediate Modern Eastern Armenian. (5–5–5) Lecture, five hours. Recommended requisite: course 4C. Students with knowledge of Western 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.

106A-106B-106C. Armenian Society and Culture. (4–4–4) Lecture, four hours. Recommended requisite: course 105C. Students with knowledge of Eastern or Western Armenian should contact instructor to determine appropriate enrollment level. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Upper-Division Courses

101A-101B-101C. Elementary Modern Western Armenian. (5–5–5) Lecture, five hours. Course 101A is recommended requisite to 101B, which is recommended requisite to 101C. Students with knowledge of Armenian should contact instructor to determine appropriate enrollment level. Armenian grammar, conversation, and exercises. P/NP or letter grading.

102A-102B-102C. Intermediate Modern Western Armenian. (5–5–5) Lecture, five hours. Recommended requisite: course 1C. Students with knowledge of Eastern or Western Armenian from elementary or high school should contact instructor to determine appropriate enrollment level. 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.

103A-103B-103C. Advanced Modern Western Armenian. (4) Lecture, four hours. Recommended requisite: course 102C. Course 103A is recommended requisite to 103B, which is recommended requisite to 103C. Students with knowledge of Eastern or Western Armenian from elementary or high school should contact instructor to determine appropriate enrollment level. Designed for students with advanced speaking fluency and reading abilities in Armenian. Exploration of advanced Western Armenian in following areas of competency: fluency, literary, accuracy, and proficiency. Use of language to engage literary themes and cultural issues of historical and contemporary significance for Armenian speakers. P/NP or letter grading.
M172. Medieval Armenian Art. (4) (Formerly numbered M173.) (Same as Art History M118A.) Lecture, three hours. Examination of cultural and historical impact of Armenian miniatures paintings. P/NP or letter grading.

M173. Armenian Painting, 17th to 20th Century. (4) (Formerly numbered M172.) (Same as Art History M118B.) Lecture, three hours. Overview of development of modern Armenian painting out of its matrix in 17th and 18th centuries. P/NP or letter grading.

188. Variable Topics in Armenian. (4) Lecture, four hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topically changed offerings. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental reading, discussion, and student preparedness. Limited to maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. 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. Assignment reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Armenian. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

230A-230B-230C. Elementary Classical Armenian. (4–4–4) Lecture, three hours. Course 230A is requisite to 230B, which is requisite to 230C. Introduction to grammar of classical literary language (8th to mid-19th century) guided readings in narrative prose texts. Letter grading.


232A-232B-232C. Advanced Classical Armenian. (4–4–4) Lecture, three hours. Requisite: course 231A or 231B or 231C. In-depth reading and linguistic analysis of texts related to Philhellenic Society of 6th to 8th century and related works up to 19th century. Each course may be taken independently for credit. Letter grading.

250A-250B. Seminars: Armenian Literature. (4–4) Seminar, three hours. Selected topics from various periods of Armenian literature. May be repeated for credit. S/U or letter grading.

251. Armenian Literature and Canon Formation. (4) Lecture, four hours. Examination of fundamental themes and genres around which Armenian literary tradition evolved and modalities by which this has been transformed in second half of 19th century. Special attention to works in vernacular Armenian and Western Armenian and in second half of 19th century. Special attention to how authors of central practitioners’ individual voice, with particular consideration to stylistics, literary theory, and general trends. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

252. Modern Armenian Drama as Vehicle for Social Critique. (4) Lecture, four hours. Examination of formal structure 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 their uses, and interaction between music and culture, society, and history. P/NP or letter grading.


150A. Armenian Literature and Canon Formation. (4) Lecture, four hours. Discussion of fundamental themes and genres around which Armenian literary tradition evolved and modalities by which this has been transformed in course of last two centuries as result of exposure to European thought and expressive forms. Concurrently scheduled with course C251. Letter grading.

152. 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 discussion 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.

153. Art, Politics, and Nationalism in Modern Armenian Literature. (4) Lecture, four hours. Examination of role of literature in modern Armenian society in service to cause or causes, as propaganda for various ideologies, as art for art’s sake, etc. Exploration of contrasting aesthetics implicit in these differing interpretations. Concurrently scheduled with course C153. P/NP or letter grading.


166. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 1C or 4C. Overview of development of Armenian cinematography from first talkie film 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 C166. S/U or letter grading.

199. Directed Research or Senior Project in Armenian. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

230A-230B-230C. Elementary Classical Armenian. (4–4–4) Lecture, three hours. Course 230A is requisite to 230B, which is requisite to 230C. Introduction to grammar of classical literary language (8th to mid-19th century) guided readings in narrative prose texts. Letter grading.


232A-232B-232C. Advanced Classical Armenian. (4–4–4) Lecture, three hours. Requisite: course 231A or 231B or 231C. In-depth reading and linguistic analysis of texts related to Philhellenic School of 6th to 8th century and related works up to 19th century. Each course may be taken independently for credit. Letter grading.

250A-250B. Seminars: Armenian Literature. (4–4) Seminar, three hours. Selected topics from various periods of Armenian literature. May be repeated for credit. S/U or letter grading.

251. Armenian Literature and Canon Formation. (4) Lecture, four hours. Examination of fundamental themes and genres around which Armenian literary tradition evolved and modalities by which this has been transformed in second half of 19th century. Special attention to exposure to European thought and expressive forms. Concurrently scheduled with course C151. S/U or letter grading.

252. Modern Armenian Drama as Vehicle for Social Critique. (4) Lecture, four hours. Examination of formal structure 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 their uses, and interaction between music and culture, society, and history. 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.

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Hebrew Lower-Division Courses

1A-1B-1C. Elementary Hebrew. (5–5–5) Lecture, four hours; laboratory, one hour. Enforced prepara- tion: Hebrew placement test. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Not open to native speakers. Introduction to modern Hebrew, including listening, speaking, reading, and writing. P/NP or letter grading.

2. Elementary Hebrew: Intensive. (10) Lecture, 10 hours. Discussion, 10 hours. Limited to maximum of 20 students. Corre- sponds to courses 1A, 1B, and 1C. Introduction to modern Hebrew, including listening, speaking, reading, and writing. Offered in summer only. 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 or letter grading.

99. 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.

89. 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 readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Tutorial 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 mentors. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this
Graduate Courses


225. Studies in Dead Sea Scrolls. (2 or 4) Seminar, three hours. Requisites: 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. Rabbinc 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. Academic. Reading in Judeo-Arabic texts by Maimonides (medieval religion, medicine, philosophy) and more recent texts in Jewish 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 Rabbinc 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 apocrypha 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 Rabbinc 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.

240. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 102A, 102B, 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.

242. Studies in Modern Hebrew Poetry. (4) Seminar, in specific problems and trends in Hebrew poetry 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.


Irani

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. Concurrently scheduled with course 1A.

8. Elementary Persian: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough
Persian to qualify for more advanced courses. Intensive course equivalent to courses 1A, 1B, and 1C. Introduction to fundamentals of Persian, including pronunciation, grammar, and Persian script, with emphasis on all four basic language skills—speaking, listening, comprehension, reading, and writing. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members. There is a requirement of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20A-20B-20C. Accelerated Elementary Persian. (6–6–6) Lecture, four hours; discussion two hours; laboratory work. Preparation: some knowledge of spoken Persian. Course 20A is enforced requisite to 20B, which is enforced requisite to 20C. Intensive and thorough study of fundamental structure of Persian grammar; reading from a wide range of classical and modern poetry and prose compositions. 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 of greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics of greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. May be counted toward honors credit. P/NP or letter grading.

99. Student Research Program. (1 to 2) Seminar. May be repeated for credit with consent of instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Upper-Division Courses

102A-102B-102C. Intermediate Persian. (5–5–5) Lecture, four hours; conversation, three hours; reading, three hours. Preparation: completion of courses 1A and 1B or consent of instructor. 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. Requirement: course 102C. Students who do not meet minimum requirements of course 102C 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. Readings 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, Arab, and India literature.

M105A. Baha’i Faith in Iran: Historical and Sociological Survey. (4) (Same as Religion M105C) Lecture, three hours. Readings in English. History of Iran. Focus on the major political and religious events depending on time period or locality. 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. 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.


M115A-M115B-M115C. Elementary Azeri. (4–4–4) (Same as Turkic Languages M115A-M115B-M115C,) Lecture, five hours. Preparation of Russian, Turkish, and Iranian helpful. Grammatical competence at elementary level; knowledge of basic facts of Azeri grammar; reading competence with help of dictionary; ability to write simple compositions; basic conversational skill. P/NP or letter grading.

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 art. 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) Lecture, three hours. Preparation: knowledge of Persian equivalent to course 102C. Introduction 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. Preparation: knowledge of Persian equivalent to course 102C. Introduction to Judeo-Persian literature and culture to prepare students to read Judeo-Persian texts. P/NP or letter grading.

133. Intermediate Judeo-Persian Literature and Culture. (4) Lecture, three hours. Preparation: knowledge of Persian equivalent to course 102C. Introduction to Judeo-Persian literature and culture to prepare students to read Judeo-Persian texts. P/NP or letter grading.

141. Persian Analytical Prose. (4) Lecture, three hours. Requirement: course 102C. Study of selected analytical and expository prose texts, with emphasis on philosophy, sciences, literary criticism, and history. May be repeated for credit with consent of instructor. P/NP or letter grading.

142. Persian Popular Ethics. (4) Lecture, three hours. Requirement: 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. Each course may be taken independently for credit.

161A-161B-161C. Elementary Middle Iranian. (4–4–4) Lecture, three hours. Preparation: knowledge of Persian desirable. Course 161A is requisite to 161B, which is requisite to 161C. 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. P/NP or letter grading.

165A-165B. Introduction to History and Culture of Iran. (4) Same as Ancient Near Eastern CM165A-CM165B) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Achaemenid times. Concurrently scheduled with course CM259. P/NP or letter grading.

169. Civilization of Pre-Islamic Iran. (4) Survey of Iranian culture from the beginning through Sasanian era.

170. Religion in Ancient Iran. (4) History of religion in Iran from the beginning to the Mohammedan conquest; Indo-Iranian background, Zoroastranism, Manichaeism, Mazdaism.

178. Elementary Zoroastrian and Ira-

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187. Variable Topics in Iranian Studies. (4) Lecture, three hours. Preparation: variable topics. May be repeated for credit with consent of instructor. P/NP or letter grading.

188FL. Special Studies: Readings in Iranian. (2) Seminar, two hours. Requirement: course 102C. Students must be concurrently enrolled in affiliated main course. Primary readings and advanced training in Iranian. Additional work in Iranian to enrich and augment work assigned in main course, including reading, writing, and other exercises in Iranian. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. 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. May be repeated for credit. P/NP or letter grading.

197. Individual Studies in Iranian. (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
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 Sassanian 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. Comparative study 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. Concurrently scheduled with course CM163. S/U or letter grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Islamic Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M50. Islam and Other Religions. (4) (Same as Arabic M50.) Lecture, three hours; discussion, one hour. Students study Islam in historical context with historical cases and modes of interaction between Muslims and non-Muslims in plural societies. Consideration of axis questions such as how does Qur’an reflect religious plurality; how does it situate Islam vis-à-vis its alternatives; what encounters did rapid expansion of Islam bring about in diverse societies; how did Islam and other religions change through debate, war, and excha...
597. Examination Preparation. (2 to 8) (Formerly numbered Islamics 597.) Tutorial, to be arranged. S/U grading.

598. MA Thesis Research and Preparation. (2 to 8) (Formerly numbered Islamics 598.) Tutorial, to be arranged. S/U grading.

599. PhD Dissertation Research and Preparation. (2 to 8) (Formerly numbered Islamics 599.) Tutorial, to be arranged. S/U 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 yearly-cycle and life-cycle practices. 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 illustrating many paths of discovery at UCLA. P/NP grading.

M67. Popular Jewish and Israeli Music. (5) (Same as Musicology M67.) Lecture, four hours; discussion, one hour. Historical and cultural depth of 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 many contexts. Exploration of music of Jews within last 100 years, with focus on popular music of Jews in America and Israel. Examination of music in Israel, with focus on songs of land of Israel, Israeli rock, and Muzika Mizrachit (Middle Eastern popular music). 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 grade only.

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

M113. Contemporary Israeli Short Stories/Novellas and Films in English. (5) (Same as Hebrew M113.) Lecture, three hours; laboratory, two hours. Exploration of Israeli short stories/ novellas and films (translated into English) written since mid-1980s that use, each to varying degree, postmodernist techniques to undermine 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 format. Films simultaneously display loss of faith in representational dimension of language, including ability of texts to penetrate to its hidden meaning. Using personal discourses, these texts strive to change modernist aesthetic and poetic paradigms. P/NP or letter grading.

135. Jewish Law. (5) Lecture, three hours. Introduction to Jewish law from biblical literature to modern legal systems. Comparison of Jewish legal systems to modern secular systems and ethical dimensions of Jewish law. P/NP or letter grading.

140A-140B. American Jewish History. (4–4) Lecture, three hours. Examination of social and cultural history of American Jewish community from its inception to the present, with emphasis on integration of successive immigrants and development of institutions. P/NP or letter grading. 140A. 1654 to 1914; 140B. 1914 to present.

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—since its foundation in 1948 to present, in context of global political and cultural change and changing Jewish world. Tension between Israel's conception of itself as Jewish state and fact that it is home to wide variety of ethnic and religious groups and to great diversity of cultures; that it was envisaged as safe haven for Jewish people but has been characterized by insecurity and ongoing war; that it is an experiment in 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.

151A-150B. Hebrew Literature in English. (4–4) Lecture, three hours. Each course may be taken independently for credit. M150A. Literary Traditions of Ancient Israel: Bible and Apocrypha. (Same as Comparative Literature M101.) Study of literary culture of ancient Israel as expressed in epic, prophetic, and wisdom traditions of the oral and written traditions. Reading materials from the Bible and the Apocrypha. P/NP or letter grading.

150B. Rabbinic Judaism. Topics include emergence of rabbinic Judaism; its original literary forms; rabbinic worldview; forms of medieval rabbinic literature; modern Jewish religious movements and their attitude to rabbinic Judaism. P/NP grading.

M151A-151B. Modern Jewish Literature in English. (4–4) Lecture, three hours. Each course may be taken independently for credit. M151A. Diaspora Literature. (Same as Comparative Literature M166.) 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 work. P/NP or letter grading.

M151B. Israel Literature. Study of translations from Hebrew literature written in Israel and reflecting cardinal facets of Israeli life: social issues, security problems, identity of the state, role of individual. Analysis of formal aspects of each work. P/NP grading.


M162. Isreal Seen through Its Literature. (4) (Same as Comparative Literature M162.) Lecture, three hours. Attempt to impart profound understanding of Israel's social systems and dynamics. Recognition of several thousand years of literary tradition, including biblical literature to modern Kabbalah and its modern offshoots. P/NP or letter grading.


175. Modern Israeli Literature Made into Films. (5) Lecture, four hours; discussion, one hour. Reading, analysis, and discussion of modern Israeli literature that was made into films, including literary works of prominent Israeli authors (S. Yizhar; A.B. Yehoshua, Amos Oz, and Yitzhak Ben Nier) that were translated into 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 presented. May be repeated for credit. P/NP or letter grading.

M178. Introduction to History and Culture of Iran. (4) (Same as History M178 and Iranian 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 Jewish cultural history, include identity and status, religious tolerance versus forced conversion, Iranian Jewish emancipation, and dynamic symbiosis between Iranian Jews and other Iranian ethnic and religious groups. P/NP or letter grading.

M181. Topics in Jewish History. (4) (Same as History M181.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration 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.

M181SL. Jewish Thought, Politics, and Ethics: From Theory to Practice. (4) (Formerly numbered History M181SL.) Same as History M181, Lecture, three hours; fieldwork, two hours. Designed for juniors/seniors. History of Los Angeles, with special emphasis on pivotal roles Jews have played in shaping Los Angeles and role that Los Angeles has played in redefining 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 ethical and methodological implications of writing history in digital age and learning how to read and analyze these new media works as primary and secondary historical texts. Opportunity to contribute to body of historical work related to Los Angeles Jewish history through research, service work, and development of digital public history projects. P/NP or letter grading.

M182A. Ancient Jewish History. (4) (Same as History M182A and Religion M182A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social, political, and religious developments. P/NP or letter grading.

M182B. Medieval Jewish History. (4) (Same as History M182B and Religion M182B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of unfolding of Jewish history from rise of Christianity to expulsion of Jews from Spain in 1492, 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.

M182C. Modern Jewish History. (4) (Same as History M182C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of early modern Jewish history beginning with enlightenment and learning how to read and analyze these new media works as primary and secondary historical texts. Opportunity to contribute to body of historical work related to Los Angeles Jewish history through research, service work, and development of digital public history projects. P/NP or letter grading.

M184A. Jewish Civilization: Encounter with Great World Cultures. (4) (Same as History M184A and Religion M184A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of dynamic interaction of Jews with great world cultures. Creative adaptations that have lent Jewish culture its distinct and various forms. P/NP or letter grading.
M184B. History of Anti-Semitism. (4) (Same as 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. Historical Methodology. (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 to present. 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 cinematic works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture 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. (4 to 6) Tutorial, one hour. Supervised individual research or investigation under guidance of faculty mentor. Culminating report 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. Survey of great civilizations of ancient Near East—Egypt, Israel, and Mesopotamia—with attention to emergence of writing, monolithism, and urban societies. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) (Same as Ancient Near East M50B and Religion M50.) Lecture, three hours; discussion, one hour. Examination of three major monotheisms of Western cultures—Judaism, Christianity, and Islam—historically and comparatively. Development, teachings, and ritual practices of each tradition up to and including medieval period. Composition and development of various sacred texts, highlighting key themes and ideas within different historical and literary strata of traditions, such as mechanisms of revelation, struggle for religious authority, and common theological issues such as origin of evil and status of nonbelievers. Letter grading.

M50C. 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.

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 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; fieldwork, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating project or paper required. May be repeated for credit. Individual contract required. 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 such as architecture, architectural forms, and building techniques, it is functionally impossible to separate pre-Islamic Christian Egypt from early Islamic Egypt. Although population may have become largely Muslim by 10th century, Egypt remained Coptic in many senses even to 14th century and retains sizeable Christian minority to present. Survey of archaeological remains and standing architecture from 6th to 19th century, charting changes and continuities in material culture and shifts in human geography and land use. P/NP or letter grading.

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 ancient events, and how these are represented by historical scholarship as well as in popular media and public spaces. Struggles over image of past have become central (as in many other societies) to debates about identity in present and directions, goals, and hopes for future. Exploration of ways in which struggles over past have shaped Israeli present. Examination of historiographical definitions and representations 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 modern viewpoints are being adopted and how historians do. Examination of conflicting readings of past and its representation in Israeli historiography and its shaping of Israeli collective memory and identity. Corequisite: scheduled with course C222. P/NP or letter grading.

M133. Bible and Qur’an. (4) (Same as Religion M133.) Lecture, three hours. Survey of Hebrew Bible/Old Testament, New Testament, and Qur’an to familiarize students with content of scriptures of Judaism, Christianity, and Islam, and sociocultural background from which these multifarious texts emerged, and to explore major themes and consider variety of approaches to scripture. Development of appreciation for role scripture plays in these religious systems and in American culture and society. P/NP or letter grading.

M142. Modern Israel: Politics, Society, Culture. (4) (Same as Jewish Studies M142.) Lecture, three hours. Examination of evolution of Israel—its changing society, volatile domestic and foreign politics, and dynamics of Israeli society—from its foundation to present in context of global political and cultural change and changing Jewish world. Tension between Israel’s conception of itself as Jewish state and fact that it is home to wide variety of ethnic and religious groups, and to great diversity of cultures; that it was envisaged as safe haven for Jewish people but has been characterized by insecurity and ongoing war; that, founded as democracy, it contends with multiple strains on its democratic system, such as tensions between Jews and Arabs, secular and religious Jews, and disparate ethnic groups. P/NP or letter grading.

M143. Zionism: Ideology and Practice in Making of Jewish State. (4) (Same as Jewish Studies M144.) Lecture, three hours; discussion, one hour. History of Zionism on backdrop of European, world, and Jewish 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 schedule. Clasically defined fields and topics in range of Middle Eastern studies. May be repeated for credit with topic change. P/NP or letter grading.

M178. Variable Topics. (4) (Same as Religion M178.) Seminar, three hours. Interdisciplinary approach to some major topics in study of religion and Middle Eastern studies. May be repeated for credit with topic change. P/NP or letter grading.

M179SL. Movement in Art, Philosophy, and Daily Life. (8) (Same as Comparative Literature 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 control over movements. In living animals, sentence of consciousness is to integrate often complex input and decide on course of action. Similarly, ownership and agency are inseparably associated with biological systems that control our movements. Movements play vital part in constructing psychosocial environment that permeates and surrounds us. Exploration of how humans and animals move, and how movement, as well as limitations of mobility, relate to personal and community identity. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
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. Israeli society was born in effort to reshape images of Jewish past and has been shaken by many debates over history, recent and ancient events, and how these are represented by historical scholarship as well as in popular media and public spaces. Struggles over image of past have become central (as in many other societies) to debates about identity in present and directions, goals, and hopes for future. Exploration of ways in which struggles over past have shaped Israeli present. Examination of historiographical debates and their reflections in range of media to make some sense of ever-changing past, ways in which it shapes political, ideological, and cultural identities in present, and where medieval to modern period discourses and work historians do. Examination of conflicting readings of past and its representation in Israeli historiography as it is self-definition as an 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. Folklore is the speech of the people, a concern of cosmos, origins of mankind, and boundaries between divine and human realms. Answers to questions concerning origins of evil, pursuit of wisdom, expectations for life beyond death, and quest for immortality are all sought in folklore of ancient religions. Directed readings of ancient literatures. S/U or letter grading.

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 CM214 and Slavic CM214.) Lecture, three hours. Topics relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLLs and HLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLs and HLLs; most represented among UCLA students; institutional and instructor attitudes toward HLLs; impact of student motivation and effort on curricular design and teaching approaches; similarities and differences between HLLs and foreign language learners (FLLs) regarding teaching methods and materials; diagnostic testing and needs assessment; oral/aural proficiency as springboard for literacy instruction; optimization of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM114. S/U or letter grading.

M248. Anthropology and History of Mediterranean. (4) (Same as Anthropology M248 and History M248.) Seminar, three hours. Introduction to historical and anthropological writings about Mediterranean. Draws on variety of classic and contemporary theories, histories, and ethnographies about Mediterranean. Topics include geographical and imaginary boundaries, Mediterranean honor/shame concepts, colonial and post-colonial Mediterranean, thalassology, Mediterraneanism, French Mediterraneans, Jewish Mediterranean, medieval and post-colonial seas and migrants and mobility. Focus on critical history of anthropological study of Mediterranean and scholarly literature that emphasizes southern shores of Mediterranean. 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.


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. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Semitics

Lower-Division Courses

189H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater...
depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Graduate Courses


215B. Syriac. (4) Lecture, two hours. Morphology and syntax of Syriac language; readings in Syriac translation. Course may be repeated for credit. S/U or letter grading.


230. Seminar: Ancient Semitic Languages and Literatures. (4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

240. Seminar: Akkadian Language. (4) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. May be repeated for credit. S/U or letter grading.

240X. Seminar: Akkadian Language. (1 Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. Course for students who participate regularly in class meetings but without the homework required in course 240. May be repeated for credit. S/U or letter grading.

241. Seminar: Akkadian Literature. (4) Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. May be repeated for credit. S/U or letter grading.

241X. Seminar: Akkadian Literature. (1 Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. Course for students who participate regularly in class meetings but without the homework required in course 241. May be repeated for credit. S/U or letter grading.

280A. Seminar: Comparative Semitics. (4) Seminar, two hours. S/U or letter grading.

596. Directed Individual Study. (To 8) Tutorial, to be arranged. S/U or letter grading.

597. Examination Preparation. (To 8) Tutorial, to be arranged. S/U or letter grading.

599. PhD Dissertation Research and Preparation. (To 8) Tutorial, to be arranged. 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 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. S/U or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


215B. Syriac. (4) Lecture, two hours. Morphology and syntax of Syriac language; readings in Syriac translation. May be repeated for credit. S/U or letter grading.


230. Seminar: Ancient Semitic Languages and Literatures. (4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

240. Seminar: Akkadian Language. (4) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. May be repeated for credit. S/U or letter grading.

240X. Seminar: Akkadian Language. (1 Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. Course for students who participate regularly in class meetings but without the homework required in course 240. May be repeated for credit. S/U or letter grading.

241. Seminar: Akkadian Literature. (4) Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. May be repeated for credit. S/U or letter grading.

241X. Seminar: Akkadian Literature. (1 Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. Course for students who participate regularly in class meetings but without the homework required in course 241. May be repeated for credit. S/U or letter grading.

280A. Seminar: Comparative Semitics. (4) Seminar, two hours. S/U or letter grading.

596. Directed Individual Study. (To 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.

597. Examination Preparation. (To 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.

599. PhD Dissertation Research and Preparation. (To 8) Tutorial, to be arranged. S/U or letter grading.

Upper-Division Courses

101A-101B-101C. Elementary Turkish. (5–5–5) Lecture, five hours. Course 101A is requisite to 101B, which is requisite to 101C. Grammar, reading, conversation, and elementary composition drills. P/NP or letter grading.


111A-111B-111C. Elementary Uzbek. (4–4–4) Lecture, three hours; laboratory, two hours. Elementary grammar, reading, and composition exercises; elementary conversation.


M115A-M115B-M115C. Elementary Azeri. (4–4–4) (Same as Russian M115A-M115B-M115C.) Lecture, five hours. Knowledge of Russian, Turkish, and Iranian helpful. Grammatical competence at elementary level; knowledge of basic facts of Azeri grammar; reading competence with help of dictionary; ability to write simple compositions; conversational skill, P/NP or 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.


180. Modern Turkish Languages and Peoples. (4) Lecture, three hours. Required of students in Turkic program and recommended for students in Soviet studies. Ethnic and linguistic survey of the Turkish peoples.

189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Individual contract required. P/NP or letter grading.

586 / Near Eastern Languages and Cultures
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

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Neurobiology

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Felix E. Schweizer, PhD
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M.D. Studies

Michael V. Sormin, MD, PhD
Cata Sterrnin, 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
Yrve Z. O’Neill, PhD
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Assistant Professors

Jeffrey M. Donlea, PhD
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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 with diverse research backgrounds in cellular and molecular biology, psychology, and engineering; utilize the most sophisticated technologies available to work in concert with colleagues throughout UCLA and the world to enhance the understanding of the brain and its role in health and disease.

Medical History

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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

Upper-Division Courses

107A-107B. Historical Development of Medical Sciences. (4-4) Lecture, three hours. Major contributions of medicine and medical personalities from earliest times. P/NP or letter grading. 107A. Contributions of medicine and medical personalities 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 Neuroscience M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nervous systems, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

Graduate Course

596. Directed Individual Studies in Medical History. (2 to 12) Tutorial, to be arranged. Investigation of subject matter required. May be repeated for credit. Individual reports and conferences. S/U or letter grading.

Neurobiology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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

Upper-Division Courses


M169. History of Neurosciences. (4) Same as Medical History M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nervous systems, 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 under-graduate fellows in Howard Hughes Undergraduate Research Program. Presentations of scientific data from primary research articles and from students’ own research. May be repeated for credit. P/NP grading.

197. Individual Studies in Neurobiology. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Neurobiology. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Studies in anatomy and related subject areas appropriate for training of particular students, which includes reading assignments or laboratory work leading to final oral or written report. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

M200A. Synapses, Cells, and Circuits. (4) (Same as Neuroscience M204.) Lecture, three hours; laboratory, two hours. Fundamental topics concerning subcellular, cellular, and structural organization of nervous system. Specific topic areas include neuronal ultrastructure, cellular neurobiology, neuroanatomy, neural circuitry, and imaging.

M200B. Cell, Developmental, and Molecular Neurobiology. (6) (Same as Neuroscience M202.) 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.
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.

Neurosciences, Undergraduate Interdepartmental Undergraduate Program

College of Letters and Science

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Kate M. Wassum, PhD (Psychology)
Joseph B. Watson, PhD (Psychiatry and Biobehavioral Sciences)
Stephanie A. White, PhD (Integrative Biology and Physiology)

Scope and Objectives

Neuroscience seeks to understand the brain in health and in disease. Topics of fundamental interest include perception, cognition, learning, memory, motor control, and regulation of body function. The undergraduate interdepartmental program seeks to explore the principles and concepts of this broad range of nervous system function at many levels of analysis, includ-
ing molecular, cellular, synaptic, network, computational, and behavioral.

Information on the graduate program in this discipline can be found in the Neuroscience graduate interdisciplinary 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, Psychological Science 111A can be substituted.

Elective Options: One course from each of the following three options:


Molecular, Cell, and Developmental Neuroscience: Molecular, Cell, and Developmental Biology 162, Neuroscience M130, M145, C177, 180, 181, 182, 186, M187, 191C, Physics C186, Physiological Science M106, 121, C126, C127, M145, 146, 147, 174, 175, M181, Psychology M117J, M162, 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 must take three upper-division electives, chosen from the following:

No more than eight courses may be from any combination. 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 a 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 biology, life sciences, and physics are prerequisites to the upper-division course requirements.

Required Upper-Division Courses (approximately 31 units): Neuroscience M101A, M101B, M101C (5 units each) and four elective courses selected from 101L, 102, 199A and 199B, and from any of the three elective options listed under the Neuroscience major.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Neuroscience

See the Neuroscience graduate interdisciplinary 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 Physiological Science M180A or Psychology M175A) or Psychological 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 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 an independent study course; one to three hours of individual study with lecture course instructor to ex-
plain 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. Independent 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

M101A-M101B-M101C. Neuroscience: From Mole-
cules to Mind. (3-5-5) Same as Molecular, Cell, and Developmental Biology M175A-M175B-M175C, Physiological 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. Requi-
sites: Chemistry 14A or 30A (1A may be taken con-
temporaneously), Science 2 or 7C, Physics 1B or 1BH or 6B or 5C. Not open for credit to students with credit for Physiological Science 111A. For Neurosci-
ence and Physiological Science majors, grade of C- or better is required to proceed to Neuroscience M101B or Physiological Science 111B. Cellular neuro-
physiology, 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 Neuro-
science. (5) Lecture, four hours; discussion, 90 minutes. Requi-
sites: course M101A (or Molecular, Cell, and De-
velopmental Biology M175A or Physiological Science M180A or Psychology M117A; Neuroscience majors must have grade of C- or better) or Physiological Sci-
ence 111A or Psychology 115. Life Sciences 3 and 4 (may be taken concurrently), or 7C. Molecular bi-
ology of channels and receptors: focus on voltage depen-
dent channels and neurotransmitter receptors. Molecular genetics of neurodevelopmental disorders and synaptic transmission, axonal transport, cytoskeleton, and muscle. Classical experiments and modern mo-
.lecular approaches in developmental neurobiology. P/NP or letter grading.

M101C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requi-
sites: course M101A (or Molecular, Cell, and De-
velopmental Biology M175A or Physiological Science M180A or Psychology M117A; Neuroscience majors must have grade of C- or better) or Physiological Sci-
ence 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 to students with credit for Neuro-
science 111L. Introduction to laboratory methods in neuroscience. Laboratory exercises range from mo-
.lecular and cell biological to behavioral. Hands-on ex-
perience with techniques commonly used in current experi-
mental 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. Corequi-
site: course M101A. Not open to freshmen. Overview of human nervous system; relation of behavior to higher cognitive function. Development of primate and human brain during past few million years; evolu-
tyionary aspects of neuroanatomical structures and ef-
efects of behavior and cultural attitudes of modern man. P/NP or letter grading.

M119L. Human Neuropsychology. (4) (Same as Psychology M119L.) Lecture, three hours. Recom-
mented requisite: courses M101A and M101C (or Psychology 115), Psychology 120A or 120B. De-

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 num-
bered M123.) Same as Physiological Science CM123.) Lecture, three hours; discussion, one hour. Requi-
sites: courses M101A and M101B or Physiolog-
ical Science 111A and 111B or consent of instructor. Detailed look into science of sleep. Cellular and mo-
.lecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakeful-
hess, and homeostatic regulation of sleep. How our sleep needs shape with respect to age, sex, and gender. Latest insights into question of function of sleep, critical role sleep plays in memory formation and, close association between sleep and metabo-
ism; sleep disorders and how they provide insights into mechanisms underlying sleep. For back-
ground on science of sleep and circadian rhythms, completion of Physiological Science C126 is highly recommended. Concurrently scheduled with course CM222. Letter grading.

M130. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Bi-
ology M175, Physiology M175, Psychiatry M181, and Psychology M117J.) Lecture, three hours. Requisite: course M101A (or Molecular, Cell, and De-
velopmental Biology M175A or Physiological Science M180A or Psychology M117A or Physiological Sci-
ence 111A or Psychology 115. Underlying brain sys-
tems involved in psychiatric symptoms and neurolog-
ical disorders, including schizophrenia, depression, bipolar disorder, obsessive/compulsive disorder. Pro-
vides basic understanding of brain dysfunctions that contribute to disorders and rationales for pharmaco-
treatments. P/NP or letter grading.

M135. Dynamical Systems Modeling of Physiologi-
cal Processes. (5) Same as Psychobiology Science M135.) Lecture, four hours; laboratory, two hours. Ex-
amination of the role of sensory transduction, the brain, and the body to integrate environmental signals into bodily responses. Focus on methods, applications, assumptions, and limitations of dynamical systems models. P/NP or letter grading.

M145. Neural Mechanisms Controlling Movement. (5) (Same as Physiological Science M145.) Lecture, four hours. Requisite: course M101A or Physiological Science 111A or M180A. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.

M161. Personal Brain System. (4) (Same as Psychiatry M182.) Seminar, four hours. Basic over-
view of brain function and consideration of some management methods that exist already, and what fu-

M170. Music and Brain. (4) (Same as Music In-
dustry M170.) Seminar, three hours; outside study, nine hours. Multidisciplinary approaches to understanding brain mechanisms mediating music percep-
tion, performance, and cognition. Students’ natural interest in music serves as springboard for learning basic concepts about how brain works. Focus on specific topics such as harmony perception, rhythm perception, emotion and meaning in music, and cre-
avity. Designed to help students understand meth-
odological approaches currently used to study brain mechanisms mediating music-related cognitive and emotional functions. Letter grading.

C172. Drugs of Abuse; Translational Neurobiology. (4) Lecture, four hours. Requisite: course M101A. Course ranges from synaptic to society. Provides in-
troduction, current research, and basis for understanding substance abuse and blends that ma-
terial with relevant topics such as epidemiology, co-
occurrence disorders, treatment, intervention, 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 to students with credit for course 191A, seminar 1. Emphasis on human electro-
encephalogram (EEG) and various forms of sensory-
evoked potentials. Introduction to number of experi-
mental paradigms that allow for recording of different brain signals from brainstem to cortex. Letter grading.

Clinical Neuroscience: New Concepts in Neu-
rologic Disorders. (4) Not for credit to students with credit for course M101A. Not open for credit to stu-
dents with credit for course 191A, seminar 2. Intro-
duction to neurological diseases. Description of dis-
cases from clinical perspective, description of dis-
order, dealing with clinical population, and discussion of treatments and underlying causes. Mechanisms and new treatments. Letter grading.

180. Genetics, Molecular, and Genomic Approaches to Neural Development and Disease. (4) Seminar, three hours. Enforced requisites: courses M101A, M101B. Not open for credit to students with credit for course 191C, seminar 1. In-depth study of genetic, molecular, and genomic approaches to studying ner-
vous system development and disease. Overview of current technologies used to generate mouse models for human diseases and phenotypic models and genetic techniques for studying development and disease. Inte-
grative genomic approaches for identifying and char-
acterizing gene(s) involved in these processes. Em-
phasis on mouse models, but other model organisms considered as well. Letter grading.

181. Cellular and Molecular Mechanisms of Learn-
ing and Memory. (4) Seminar, four hours. Enforced requisite: course M101A. Not open for credit to stu-
dents with credit for courses 191C, seminar 1. Focus on cellular models of learning and memory. Genetic and molecu-

umin 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: 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 112). 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. Examination 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. (4-4-4) Seminar, three hours; laboratory, one hour. Enforced requisites: courses M101A or Physiological Science 111A. 191B. Systems and Integrative Neuroscience. Requisite: course M101A or Physiological Science 111A. 191C. Molecular, Cell, and Developmental Neuroscience. Enforced requisite: course M101B.

191H. Honors Seminars: Neuroscience. (4) Seminar, four hours. Preparation: one statistics course (Statistics 10 or equivalent). Limited to neuroscience honors program students. Instruction in principles of scientific method, ethics, and written and oral communication; critique of current journal articles and research. Emphasis on development of culminating project. May be applied as elective only in specific area of group 2. Each course may be repeated once for credit, P/NP or letter grading. 191A. Behavioral and Cognitive Neuroscience. Requisite: course M101A or Physiological Science 111A. 191B. Systems and Integrative Neuroscience. Requisite: course M101A or Physiological Science 111A. 191C. Molecular, Cell, and Developmental Neuroscience. Enforced requisite: course M101B.

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 periodic reports of their experience. 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 drug abuse to students at local high schools. Designed as follow-up to course C177 where students learned didactic material on mechanisms of action and translational aspects of drugs of abuse. Students meet on regular basis with supervisors and provide periodic reports of their experience. May not be applied toward major requirements. May be repeated twice for credit. Letter grading.


198A. 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 member. For departmental honors, students must also take course 191H. Minimum 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).

198B. Honors Research in Neuroscience. (4) Tutorial, 12 hours minimum in laboratory. Requisite: course 198A. Continued reading and research that culminates 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).

199A. 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. Minimum of 8 units of courses 199A, 199B, 199B, 199A may be applied toward major. Individual contract required. In Progress grading (credit to be given only on completion of course 199B).

199B. Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum. Enforced requisites: course 199A. 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 199A, 199B, 199A, 199B may be applied toward major. Individual contract required. Letter grading.

199C. Continued Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum in laboratory. Enforced requisites: courses 199B or 199B. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. Continued reading and research that culminates in report under direct supervision of faculty mentor. May not be applied toward major. May be repeated for credit. Individual contract required. Letter grading.

NEUROSCIENCE, GRADUATE

Interdepartmental Graduate Program

David Geffen School of Medicine

1329 Gonda Center
Box 951761
Los Angeles, CA 90095-1761

Neuroscience Graduate IDP
310-825-8153

Program e-mail

Felix E. Schweizer, PhD, Chair
Thomas J. O’Dell, PhD, Vice Chair

Faculty Committee
Hugh T. Blair, PhD (Psychology)
Dean V. Buonomano, PhD (Neurobiology, Psychology)
S. Thomas Carmichael, Jr., MD, PhD (Neurology)
Christopher J. Evans, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
David L. Glanzman, PhD (Integrative Biology and Physiology, Neurobiology)
Ming Guo, MD, PhD (Molecular and Medical Pharmacology)
Karen H. Gylys, PhD (Nursing)
Kelsey C. Martin, MD, PhD (Biological Chemistry, Psychiatry and Biobehavioral Sciences)
Paul E. Micevych, PhD (Neurobiology)
Thomas J. O’Dell, PhD (Physiology)
Alvaro Sagasti, PhD (Molecular, Cell, and Developmental Biology)
Felix E. Schweizer, PhD (Neurobiology)
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 neural function and the biological basis of disease. Students select their research mentor from the list of all neuroscience faculty at UCLA.

Information on the undergraduate program in this discipline can be found in the Neuroscience undergraduate interdepartmental program section.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Graduate Degree
The Neuroscience Program offers the Doctor of Philosophy (PhD) degree in Neuroscience.

Neuroscience
See the Neuroscience undergraduate interdepartmental program for more undergraduate courses.

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in 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 research 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.


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 and relationships between ascending and descending nerve tracts in various 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, neuronanatomy, neuronal circuitry, and imaging. Letter grading.


M206. Neuroengineering. (4) (Same as Bioengineering M260 and Electrical and Computer Engineering M253.) 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-electron stimulation, and prosthetics. Letter grading.

207. Integrity of Scientific Investigation: Education, Research, and Career Implications. (2) Discussion, two hours for each quarter. Students debate on topics related to ethical conduct of scientific investigation, with emphasis on critical thinking. Topics include scientific misconduct, mentoring, data ownership, authorship, authorship lists, and animal research misconduct. Letter grading.


215. Variable Topics Research Literature Seminars: Neuroscience. (1) Seminar, two hours. Critical discussion and analysis of current literature for various neuroscience research topics. Only one topic may be taken twice for credit and applied toward neuroscience graduate requirements. S/U grading.

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. Further discussion on topics in sensory systems neurobiology, including sensory transduction, taste and olfaction, audition, vision, and somatosensory system. Letter grading.

223. Neurobiology of Sleep. (4) (Same as Physiological Science M210.) Lecture, four hours; discussion, one hour. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakefulness, and homeostatic regulation of sleep. How our sleep needs shift by the evolutionary history, age, and gender. Latest insights into question of function of sleep, critical role sleep plays in memory formation and, in general, sleep and metabolism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, prior course M101A and Physiology M210 is highly recommended. Concurrently scheduled with course CM213. Letter grading.

230. Molecular and Cellular Mechanisms of Neu- ral Integration. (5) (Same as Physiological Science M210 and Physiological Science M215.) 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, molecular biology and physiology of receptors, cellular basis of integration in sensory perception and learning, neural nets and oscillators, and molecular events in development and sexual differentiation. Letter grading.


240. 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 approach commonly used in study of nervous system, including imaging modalities such as two-photon microscopy, methods for imaging and stimulating neuronal activity, and advanced microscopy approaches such as FRET and 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.


M273. Neural Basis of Memory. (4) (Same as Psychiatry M270.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurological data integrated into models for how behavioral phenomena of memory arise. 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 on 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 intercellular 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 critical didactic and scientific 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.
**NEUROSURGERY**

David Geffen School of Medicine

562 Wasserman Building
Box 956901
Los Angeles, CA 90095-6901

**Neuroscience**

310-267-9449

Linda A. Liau, MD, PhD, MBA, Interim Chair

**Scope and Objectives**

Neuroscience 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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Linda P. Sarna, RN, PhD, FAAN, Dean

Lynn V. Doering, RN, PhD, FAAN, Associate Dean, Academic and Student Affairs

**Professors**

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Courtney H. Lyder, ND, ScD(H), FAAN
Janet C. Mentes, PhD, APRN, FAAN, FGSA
Jack Needleman, PhD, FAAN
Wendie A. Robbins, RN, PhD, NP, FAAN, FAAONH (Audrienne H. Moseley Professor of Biological Nursing Science)

Linda P. Sarna, RN, PhD, FAAN (Lulu Wolf Hasenplug Professor of Nursing)

Dorothy J. Wiley, RN, PhD, FAAN

Mary A. Wool, RN, PhD, FAAN

**Professors Emeriti**

Nancy L.R. Anderson, RN, PhD, NP-C, AOCN, FAAN
Lina K. Badr, RN, DNsC, FNP-C, FAAN
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Peggy A. Compton, RN, PhD, FAAN
Jacquelyn H. Flasketud, RN, PhD, FAAN
Deborah Konikai-Griffith, RN, EdD, FAAN (Audrienne H. Moseley Professor Emerita of Women's Health Research)

Mary A. Lewis, RN, DrPH, FAAN
Sally L. Malski, RN, PhD
Donna K. McNeese-Smith, RN, EdD, CNA
Joyce A. Newman Giger, RN, EdD, FAAN
Carol L. Pavlish, RN, PhD, ONC, FAAN
Linda R. Phillips, RN, PhD, FGSA, FAAN (Audrienne H. Moseley Professor Emerita of Nursing)

Sharon J. Redder, RN, PhD, FAAN
Gwen M. Van Servellen, RN, PhD, FAAN
Frances M. Wiley, RN, MN
Ann B. Williams, RNC, EdD, FAAN

**Associate Professors**

We-Ti Chen, RN, CNM, PhD, FAAN
Sarah E. Choi, RN, PhD, FNP
Jo-Ann O. Eastwood, RN, PhD, CNS, ACNP-BC, FAAN
Suzette V. Glisner-Edwards, PhD, in Residence
Mary Sue V. Heilemann, RN, PhD
Eunice Eugenin Liao, RN, MS, DNSc, GNP, CS
Paul M. Macey, PhD, in Residence
Hubrie C. Pieters, RN, MSN, DPhil, PhD
Nancy A. Pike, RN, PhD, FNP-C, CPNP-AC
Sophie Sokolov, PhD, MPHarm

**Assistant Professors**

Nalo M. Hamilton, PhD, MSN, APRN-BC
Su Yong Jung, PhD
Mary Rez-Hammar, NP, PhD
Christine Samuel-Nakamura, RN, FNP-BC, PhD
Elizabeth Anne Thomas, RN, PhD, ANP-BC, COHN-S, FAAN
Rosarina Torres, RN, MSN, PhD

**Lecturers**

Jeffrey A. Adams, RN, MSN
Stephanie C. Au, RN, MSN, FNP-C
Theresa A. Brown, RN, MSN, NP
Nancy J. Bush, RN, MA, AOCN, OCN, FAAN
Mary M. Canobbio, RN, MSN, FAAN
Carol Lynn W. Cunningham, RN, PHN, MSN, FNP-C
Barbara L. Demman, RN, MSN, ACNP
Elizabeth L. Dixon, RN, MSN, MPH, FAAN
Nursing to promote biopsychosocial health and disease prevention, they should utilize the nursing process in health systems, and social environmental, cultural and human diversity to the nursing process. They should identify practice-based problems and hypotheses and critique research on issues of importance to nursing and health care delivery; participate effectively in relevant professional and community organizations and/or interest groups; demonstrate leadership as a member of the health team to plan, manage, and evaluate care of individuals, families, and communities for culturally diverse populations; and practice their work based on the principles of ethics, social justice, and law.

Nursing BS Prelicensure Capstone Major
The focus of the prelicensure program is on the preparation of nurse generalists with special skills in primary, secondary, and tertiary prevention and care within an individual- and population-based context while developing the basics for a strong leadership role. Students learn the art and science of nursing using the latest research findings to guide their practice.

Learning Outcomes
The Nursing major has the following learning outcomes:

- Selection, evaluation, and application of appropriate theory and research findings concerning individual- and population-based health promotion and disease prevention, biobehavioral and health systems, social environmental, and cultural and human diversity to the nursing process with a variety of clients, families, and communities from diverse cultural backgrounds.
- Use of the nursing process to promote biopsychosocial health and disease prevention, and to support client resources in community and hospital settings.
- Demonstrated effective communication and collaboration skills with clients, families, research participants, health professionals, and policymakers.
- Identification of practice-based problems and hypotheses, and critique research on issues of importance to nursing and health care delivery within hospital and community settings.
- Effective participation in professional and community organizations and interest groups relevant to health care delivery and modification of nursing standards and practices in keeping with current trends.
- Demonstrated leadership as a health team member to plan, manage, and evaluate care of individuals, families, and communities.
- Practice of hospital- and community-based nursing using principles of ethics, social justice, and law.

Admission
The School of Nursing strives to attract a culturally and ethnically diverse student population. Admission is designed for freshman students and transfer students at the junior level. Freshman applicants are expected to fulfill the University of California admission requirements. Transfer applicants are expected to fulfill the Intersegmental General Education Transfer Curriculum (IGETC). Students must have a grade of C or better in each requisite course and an overall grade-point average of 3.5 or better.

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, 54B on entry. Students may request to pursue a minor in a related field if the coursework can be completed within the 216-unit limit.

The curriculum at UCLA must be completed with a minimum overall grade-point average of 2.0 (C) or better in all courses taken while a student in the School of Nursing.

Each required nursing course in the school must be completed with a grade of C or better (C– grade is not acceptable).

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

Graduate Degrees
The School of Nursing offers the Master of Science in Nursing (MSN) degree, the Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Nursing, and the Doctor of Nursing Practice (DNP) degree. A concurrent degree program (Nursing MSN/Management MBA) is also offered.

Nursing
Lower-Division Courses
3. Human Physiology for Healthcare Providers. (5) Lecture, three hours; laboratory, two hours. Basic understanding of human physiological processes, with emphasis on applications to patient evaluation and care. Introduction to normal functions and how alterations in these normal functions can affect body systems. Knowledge and understanding of these normal human processes is basic to providing quality nursing care. Examination of system variations across lifespan. Letter grading.

10. Introduction to Nursing and Social Justice I. (2) Lecture, two hours. Within context of history of nursing, introduction to practice of nurses, including role of advocacy. Discussion of effective use of self as professional nurse in relation to ethics, cultural competence, and human diversity. Introduction to ethical principles (justice, autonomy, veracity, beneficence, confidentiality) and professional values (truth, autonomy, human dignity, integrity, and social justice) in relation to nursing practice throughout history in health/illness and end-of-life contexts. Letter grading.

13. Introduction to Human Anatomy. (5) Lecture, three hours; laboratory, two hours. Structural presentation of human body, including musculoskeletal, nervous, circulatory, respiratory, digestive, renal, and reproductive systems. Laboratory uses virtual cadaver dissection and examination. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members from schools, departments, and programs. May be outlined in announcements, the Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Upper-Division Courses
105. Human Physiology. (4) Lecture, three hours; discussion, one hour. Designed for nursing students. Lecture and discussion, with emphasis on a correlational approach to anatomy and physiology of human body. P/NP or letter grading.

115. Pharmacology and Therapeutics. (5) Lecture, four hours. Requires: courses 54A, 54B. Clinical pharmacology for undergraduate nursing students, beginning with emphasis on major pharmacologic principles. For classes, and their mechanism of action, pharmacokinetcs, adverse effects, and clinical issues. Letter grading.

150A. Fundamentals of Professional Nursing I. (4) Lecture, three hours; laboratory, three hours. Requires: 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. Requires: courses 150A, 152A, 152B, 174. Continuation of course 150A. Expansion of student knowledge on practice of professional nursing, as theory-based goal-directed method for assisting patients to meet basic human needs at various levels of health continuum. Concepts of communication, interdisciplinary communication and collaboration, interpersonal relationships, cultural competence, and nursing process with critical thinking skills as clinical decision-making strategies essential to practice of professional nursing. Characteristics and roles of professional nursing. Development of caregiver, teacher, and collaborator roles in learning experiences in nursing skills laboratory and clinical settings. Continued work on mathematical calculations and terminology with addition of intravenous drip medication calculations used in clinical setting. Letter grading.

152A. Health Promotion: Growth and Development in Culturally Diverse Populations. (2) Formerly numbered 152A. An introduction to primary prevention strategies as they pertain to health and wellness across lifespan, using population-based approach to nursing care of diverse populations. Priorities include those that affect health in all communities and more independently in communities or within institutions. Analysis of influence of overarching political, societal, and governmental systems within U.S. Letter grading.


C155. Global Health Elective: Globalization, Social Justice, and Human Rights. (3) Seminar, two hours. Exploration of theories, issues, debates, and pedagogy associated with globalization, social justice, and human rights and how these perspectives influence human health and well-being. Provides students with unique opportunity to explore these topics within classroom, via Internet and other technologies, and in other classrooms located around globe. Students, through collaborative projects with peers around world, reflect on how globalization shapes and transforms local communities and societies. Concurrency with course C255. Letter grading.

160. Secondary Prevention. (4) Lecture, four hours. Requires: courses 150A, 150B, 152A, 152B. Screening and early detection of illness to prevent chronic or acutely determine the need for interventions to prevent onset of disease and improve quality of life. Focus on role of contemporary nursing in relation to ethics and social justice. Analysis of ethical principles (justice, autonomy, veracity, beneficence, confidentiality) and professional values (truth, autonomy, human dignity, integrity, and social justice) in relation to nursing practice throughout history in health/illness and end-of-life contexts. Letter grading.


162A. Foundational Concepts for Tertiary Prevention and Care of Medical-Surgical Patients and Families. (4) Lecture, three hours; clinical, three hours. Requires: 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. Exploration 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 apply in practice and 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. Requires: course 162A. Pathophysiological and psychological aspects of assessment and management for selected acute and emergent problems of adult patients with complex illness, including multifaceted assessment, health his-
nary, 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 as applied to care of acutely ill medical surgical patients, with complex and comorbid conditions, and their families. Emphasis on critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical reasoning, evidence-based practice, and clinical thinking that maximize patient safety and education. Assessment and management of health care problems managed by master’s-level clinical nurses in acute care settings. 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 developmental influences. Students integrate knowledge of pathophysiology, pharmacology, stress and adaptation, adult development theory, therapeutic interventions, and communication concepts as applied to care of older adult patients and their families. Emphasis on concept of nurse as nurse scientist with critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical research, evidenced-based practice, and clinical thinking that maximize patient safety and quality care for older adults are employed during clinical experiences. Letter grading.

164. Maternity Nursing. (5) Lecture, three hours; clinical, six hours on campus. courses 160, 162B, 162C. Nursing assessment and management for selected acute and emergent problems in maternity/newborn patients, with emphasis on social, cultural, and developmental influences. Introduction of basic knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, and communication concepts as applied to childbearing families, with application of nursing process, evidenced-based practice, problem-solving strategies, and critical thinking. Supervised clinical practicum experience within setting of multidimensional team, with focus on application of theory in clinical interventions of assessment and diagnostic data for purpose of planning, implementing, and evaluating nursing care for maternity/newborn patients. Intermediate-level assessment, health maintenance, and management of symptoms in this population. Letter grading.

165. Pediatric Nursing. (5) Lecture, three hours; clinical, seven hours; courses 160, 162B, 162C. Nursing assessment and management of acute, chronic, critical, and emergent illnesses in infants, children, and adolescents with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, and family-centered care concepts as applied to care of infants, children, and adolescents. Nursing process, evidenced-based practice, and problem-solving and critical-thinking strategies to improve patient safety, care quality, and health outcomes. Supervised clinical practicum experience within setting of multidimensional team in clinical interpretation, assessment, and diagnostic data for purpose of planning, implementing, and evaluating nursing care for 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, delegating, conflict resolution, healthy work environments, 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) as a 350-hour supervised practicum experience. Letter grading.

169. Clinical Internship: Integration. (12) Clinical, six hours. Requisites: courses 161, 162C, 163, 164, 165. Supervised practicum experience within clinical setting as part of inter-disciplinary health care team. Focus on application of theory in clinical setting and interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Students design and complete quality improvement project that contributes to unit’s goals and objectives. Students implement advanced-level assessment, health maintenance, and management of symptomatology across lifespan. P/N grading.

171. Public Health Nursing. (6) Lecture, three hours; clinical, nine hours. Requisites: courses 161, 162C, 163, 164, 165. Theoretical content focuses on population-based approach to 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/N 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 audiovisual aids, 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 specific health status, assessment, and examination of health status, as well as detailed physical examination techniques. Individual study, use of audiovisual aids, 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 exploratory course. May be repeated for credit. P/N grading.

190. Research Colloquia in Nursing. (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/N 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 speakers. May be repeated for credit. P/N grading.

196. Research Apprenticeship in Nursing. (2 to 4) Tutorial, four hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/N 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/N 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. Culumminating paper or project required. May be repeated for credit. Individual contract required. P/N 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 disciplining of nursing in relation to their influence on scientific reasoning and methods of inquiry, both quantitative and qualitative, used by nurse scientist to create new knowledge. Analysis of contemporary schools of thought and modern and postmodern tension in 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, nonparametric tests, principles of database design, management using statistical packages program. 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 interrelationship 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 of data collection and analysis (interviews, participant observation, focus groups), data analysis, and data interpretation. Scientific rigor and ethical concerns for research with human participants critically examined. Letter grading.

205B. Advanced Qualitative Research: Grounded Theory Methodology I. (4) Lecture, four hours. Requisite: course 205A or equivalent approved by instructor. Students design and implement qualitative projects that build on grounded theory methodology. Symbolic interactionism and constructivism as foundation with grounded theory as guide to recruit small samples, 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.

205C. Advanced Qualitative Research: Grounded Theory Methodology II. (4) Lecture, four hours. Requisites: courses 205A, 205B, or equivalent as approved by instructor. Students 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.

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. Emphasis on 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.


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 complicated 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 research, practice, 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 state of science for health service, biological, vulnerable populations, and biobehavioral research topics. Students explore research on particular phenomenon, analyze current and historical scholarly findings in literature, critique significance of focus on this phenomenon for nursing science, identify crucial and meaningful gaps in knowledge through systematic review of research literature, and provide recommendations for future nursing 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. Requisite: consent of instructor. In-depth synthesis of published research relevant for health service, biological, vulnerable populations, and biobehavioral research 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 relevant to development of investment in women’s health issues during reproductive years. Clinical topics include gynecology, family planning, pregnancy, and postpartum care, with emphasis on health promotion and reproductive rights and responsibilities in primary care settings. Letter grading.

212. Family Healthcare Perspectives. (2) Lecture, two hours. Overview of conceptual frameworks related to contemporary family structure and function, with particular emphasis on health. Family is defined broadly to include nontraditional families; consideration of cross-cultural views of families as well. Identification of limitations of current theory and research in family, and develop applicability of current knowledge to various problems encountered in care of families. Letter grading.


218A. Theories of Instruction and Learning in Nursing. (4) Lecture, four hours. Preparation: consent of instructor. In-depth analysis of published research relevant to teaching and learning in clinical settings. Emphasis on review current knowledge in teaching and learning strategies related to the patient care environment. Students explore research on particular phenomenon, analyze current and historical scholarly findings in literature, critique significance of focus on this phenomenon for nursing science, identify crucial and meaningful gaps in knowledge through systematic review of research literature, and provide recommendations for future nursing research in biologic, biobehavioral, vulnerable populations, and health services research. Letter grading.

218B. Project Administration, Management, and Leadership in Advanced Practice Nursing. (4) Lecture, four hours. Emphasis on synthesis of theoretical and management theories in relation to clinical practice, including ethics and administration decision making. Focus on issues inherent to professional practice, and international healthcare management. Letter grading.


219A. Essentials of Accounting and Budgeting in Healthcare Organizations. (4) Lecture, four hours. Focus on review and synthesis of current knowledge to various problems encountered in caring for older patients. Letter grading.


M221. Qualitative Research Design and Methodology for Indigenous Communities. (3) Same as American Indian Studies M220 and Health Policy and Management M220. Seminar, three hours. Introduction to some key theoretical and methodological studies and exploration of methods that can be used to incorporate them in research on American Indian cultures, societies, languages, and other issues.
Quantitative methods (design, appropriate use), with emphasis on qualitative research methods, ethics, and special considerations in conducting research in American Indian country. Design of research and exploration of feasibility of researching topics. Letter grading.


225A-225B. Advanced Pharmacology I, II. (2–2) Lecture, three hours (course 225A) and two hours (course 225B). Course 225A is required for 225B. Emphasizes basic pharmacological principles in addition to clinical knowledge and skills necessary for patient-centered care in acute or chronic conditions. Focus on major pharmacological classes, their mechanism of action, pharmacokinetics, indications, and adverse effects. Discussion of quality and safety of pharmacological interventions 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 of interest (e.g., acute care, oncology, occupational health, and 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. Ethnic Genomic Nursing. (4) Lecture, three hours. Requisite: course 219. Identification of unique content related to minority aging using Giger and Davidhizar Transcultural Assessment Model. Examination of transcultural nursing viewed as culturally competent practice among client centered and research focused. Exploration of difference between Eurocentric lens and ethnocentric lens when providing nursing care to ethnically and racially diverse elders. In-depth exploration 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 exploration 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 missing data, 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, testing, and repeated measures. Letter grading.

229A-229B-229C. System-Based Healthcare I, II, III. (1–1–1) Seminar, two hours. System-based healthcare where in context of critical decision making, including team, hospital, culture, politics, economics, law, and personal bias. Topics include legal, political, and moral aspects of sexual assault and abortion; economics 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 (systems-based practice) and emotional responses and preferences (professionalism). S/U grading.

230A. Advanced Pathophysiology I. (3) Lecture, three hours. Corequisite: course 219. Exploration of health conditions taken within last three years. Course 230A is required for 230B. In-depth exploration of general pathophysiological processes that underlie human illness and diseases across all ages. Includes cellular adaptation, fluid and electrolyte balance, acid-base balance, immunity, inflammation, infection, wound healing, genetics, neoplasms, temperature regulation, somatosensory and pain, stress, and disease and activity and fatigue regulation. Detailed study and analysis of manifestations of, and responses to, processes of cellular and molecular pathology at extracellular, systemic and human levels. Letter grading.

230B. Advanced Pathophysiology II. (2) Lecture, two hours. Requisite: course 230A. In-depth examination of pathophysiological processes that underlie human illness and disease, with detailed study of these in major body systems. Examination of manifestations of, and responses to, processes of cellular and molecular pathology at extracellular, systemic, and human levels with implications for advanced practice registered nursing. Letter grading.

231. Advanced Pathophysiology for Advanced Practice Registered Nurses. (4) Lecture, four hours. In-depth examination of pathophysiological processes that underlie human illness and disease, with detailed study of these in major body systems. Analysis of manifestations of, and responses to, processes of cellular and molecular pathology at extracellular, systemic, and human levels with implications for advanced practice registered nursing. 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 in gerontological nursing. Letter grading.

233. Human Responses to Aging and Chronic Illness, (2 or 4) Lecture/discussion, four hours. Biopsychosocial concepts and nursing management of healthy, disabled, and/or chronically ill older adults, elderly population, and special populations. Analysis of health problems. Implications for advanced practice in gerontological nursing. Letter grading.

234. Pediatric Primary Care for Family Nurse Practitioners. (4) Lecture, four hours. Preparation of family nurse practitioners to assume responsibility for health promotion and illness prevention, and maintenance and management of common developmental, behavioral, acute, and chronic health problems of infants, children, and adolescents in primary healthcare settings. Presentation of condition or disease, etiology and incidence, clinical findings, differential diagnosis, pharmacologic and nonpharmacologic treatment, and preventive 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.

238A. Assessment and Management in Pediatric Healthcare I. (4) Lecture, four hours. Requisite: course 238A. Anticipatory guidance for children and families to promote child health and assessment, diagnosis, and management of common pediatric illnesses. Demonstration of application and evaluation of evidence-based and clinical guidelines in pediatric population. 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 required for 239B, which is required for 239C. 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 Neuropsychiatry I. (4) Lecture, four hours. Biological and behavioral theories and research from variety of disciplines, including nursing, for application to neuropsychiatric assessment and diagnosis. Exploration of theoretical and research evidence underlying development and diagnosis of cognitive, addictive, and affective dysfunctions, with emphasis on developing behavioral nursing approach. Letter grading.

241F. Biobehavioral Foundations of Neuropsychiatry Assessment. (4) Lecture, four hours. Biological and behavioral theories and research from variety of disciplines, including nursing, for application of neuropsychiatric assessment and diagnosis. Exploration of research underlying assessment and diagnosis of cognitive, addictive, and affective dysfunctions, with emphasis on developing a behavioral 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 practice, 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 developing a behavioral nursing approach to management of biobehavioral symptoms in advanced nursing practice. Letter grading.

242F. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (4) Lecture, four hours. Biological and behavioral theories and research from variety of disciplines, including nursing, for application to neuropsychiatric assessment and diagnosis. Exploration of research underlying assessment and diagnosis of cognitive, addictive, and affective dysfunctions, with emphasis on developing a behavioral nursing approach. 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 settings which include culturally diverse populations. Letter grading.

246. Meeting Health-Related Needs in Undererved Populations. (4) Lecture, four hours. Examination of systemic barriers within healthcare settings that limit access to disease assessment, 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-
sioned to address these clinical problems and improve outcomes in culturally competent manner. Presentation of context of healthcare financing, limited access, and public policy. Letter grading.


252A. Health Promotion: Growth and Development in Culture. (3) Lecture, two hours. Introduction to primary prevention 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 and management; 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. Letter grading.


254A. Theoretical Foundations of MSN/MECN 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 as related to roles in professional nursing. Discussion of role of research in practice, nursing process as clinical decision-making strategies, and critical thinking skills as essential to practice of professional nursing. Learning experiences in nursing skills laboratory and in clinical setting. Introduction to mathematical calculations and terminology used in clinical setting. Letter grading.

254B. Theoretical Foundations of MSN/MECN Role and Fundamentals of Professional Nursing Lecture/Clinical Skills Practicum II. (4) Lecture, three hours; laboratory, three hours. Enforced requisite: course 254A. Expansion of student knowledge of practice of professional nursing as theory-based goal-directed process for assisting patients to meet basic human needs at various levels of health continuum, with emphasis on application of relevant theories to master’s entry clinical nurse (MECN) practice roles in health care systems through case study analysis, with focus on application to clinical practice settings that involve culturally diverse populations. Focus on communication, nursing process as clinical decision-making strategy, and critical thinking skills as essential to practice of professional nursing. Learning experiences in nursing skills laboratory and in clinical settings. Introduction to mathematical calculations and terminology used in clinical setting. Letter grading.

C255. Global Health Elective: Globalization, Social Justice, and Human Rights. (3) Seminar, two hours. Exploration of theories, issues, debates, and pedagogy 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 theoretical topics within classroom, via Internet and other technologies, and in other classrooms located around globe. Students, through collaborative projects with peers around world, reflect on how globalization shapes and transforms local communities and national cultures. Concurrently scheduled with course C155. Letter grading.

260. Secondary Prevention. (4) Lecture, four hours. Requisites: courses 252A, 252B. Review of theory and evidence-based practice strategies for early detection of disease to reduce morbidity and mortality across lifespan and to develop effective strategies for promoting health and illness prevention. Use of interrelated conceptual frameworks addressing individual, family, community, health care systems factors, social environmental systems, and policies to identify factors influencing screening and valuing health disparities in order to adapt plans for care. Nursing interventions for promoting screening address barriers and facilitators, controversies, as well as utilize existing strengths and support interventions for effecting change and adaptation in diverse populations. Examination and application of specific micro-level factors including screening for physical health and mental health disorders along with associated behavioral and care practices at micro-level, built environment influences. Letter grading.

264. Professional Role Issues in Advanced Practice Registered Nursing. (3) Lecture, three hours. Requisites: course 414A or 438A or 439A. Assessment of organizational and healthcare policy, issues in relation to delivery of healthcare services by advanced practice registered nurses in evolving healthcare system. Letter grading.

266. Healthcare Systems/Organizations. (3) Lecture, three hours. Emphasis on evolution of health delivery systems in terms of effects of policy, economic factors, structure and financing of organizations, characteristics of patients/populations, and services provided. Examination of roles and practice of clinical nurse leaders. Letter grading.


269. Quality Improvement and Population-Based Practice. (4) Lecture, three hours. Requisites: courses 252A, 252B. Focus on the theoretical foundations of primary, secondary, and tertiary prevention as related to role of nurse as advocate for social justice and improvement in acute care settings for master’s entry clinical nurse (MECN). Emphasis on application of relevant theories to delivery of healthcare services by advanced practice registered nurses in evolving healthcare system. Letter grading.

269A. Managed Care: Medical and Specialty. (3) Seminar, three hours; discussion, one hour; laboratory, three hours. Discussion of management and delivery systems in terms of effects of policy, economic factors, structure and financing of organizations, characteristics of patients/populations, and services provided. Examination of roles and practice of clinical nurse leaders. Letter grading.

290. Interdisciplinary Research Seminar. (2–2–1) Seminar, three hours; laboratory, three hours; discussion, one hour. Enforced requisite for CNL certification. Letter grading.
assist students to prepare for careers as scientists, with focus on research methodology and mentorship. S/U grading.

299D. Nursing Education Seminar. (2) Seminar, two hours; discussion, one to two hours. Seminar to assist students to prepare for careers in academic settings, with focus on teaching. 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 gain under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


409. Health Care Policy for Advocacy in Health Care. (3) Seminar, three hours. Requisite: doctoral standing. Focuses on critical analysis of health policy in support of student professional goals. Covers health policy analysis within context of economic, legal, social justice, and ethical issues and stimulates debate for decision-making and action. Students partner with organizations to develop projects to (i) identify evidence, (ii) synthesize and apply evidenced-based health policies and interventions to current health care issues. Health policy framework is analyzed from governmental, institutional, and organizational perspective. Letter grading.

410. Dissemination and Translation of Clinical Scholarship. (2) Lecture/seminar, two hours. Requisite: doctoral standing. Students gain ability to demonstrate conceptual and technical skills to critically appraise and translate evidence practice. Evidence-based practice appraisal framework. Students build capacity to design clinical research and evidence translation, intervention strategies, and instruments, as well as analysis of quality management system models in health care. Evaluation of principles of change theory, strategies for change, and models of practice. Exploration of innovative opportunities to change current practice. Exploration of students' personal belief systems about high-level collaboration and team performance. Addresses relationship between interprofessional education, practice, and healthcare outcomes and processes to prepare DNP graduate to assume leadership roles. 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 improvement projects and support administrative decision-making. Students gain ability to demonstrate conceptual and technical skills to develop and execute evaluation plan involving data extraction from practice systems and databases. Letter grading.

414A-414B. Clinical Practicum: Adult/Gerontology Acute Care Oncology Nurse Practitioners. (6-8) Clinic practicum, 16 hours (course 414B). Enforced requisite: course 414C. Course 414A is enforced requisite to 414B. Assesses and therapeutic interventions in oncology settings with diverse adults/gerontology populations. Management of cancer risk, side effects of treatment and 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), four hours (course 416B). Enforced requisite: course 440. Course 416A is enforced requisite to 416B. Assessment and therapeutic interventions for selected health problems in acute adult/gerontology populations. 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. Enforced 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.

416E. Adult/Gerontology Acute Care Nurse Practitioner Practicum V. (6 to 8) Clinic practicum, 15 to 24 hours. Enforced requisite: course 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 to 240 direct clinical hours. Letter grading.

418A–418B–418C. Nursing Administration Practicum. (3 or 4 each) Clinic practicum, eight or 11 hours; clinical conference, one hour. Letter grading. 418A–418B–418C. Clinical Experience in Organization Setting. (3 or 4 each) Clinic practicum, eight or 11 hours; clinical conference, one hour. Letter grading. 418A–418B–418C. Experience in Organization Setting. (3 or 4 each) Clinic practicum, eight or 11 hours; clinical conference, one hour. Letter grading.

429A. Family Nurse Practitioner Practicum I. (4) Clinic practicum, 17 hours; clinical conference, one hour. Letter grading. 429A. Family Nurse Practitioner Practicum II. (4) Clinic practicum, 17 hours; clinical conference, one hour. Letter grading. 440. First of five clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework of care for those who experience chronic 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 chronic 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) Clinic practicum, 18 hours (courses 429C, 429D) and 27 hours (course 429E). Requisite: course 429C; course 429B; for 429C: course 429C; for 429E: course 429D. Third, fourth, and fifth 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 lifespans. Use of family-focused framework for work of care for 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 to critically analyze and adapt healthcare interventions based on individualized assessments of individual/family needs. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. For courses 429C and 429D, students complete minimum of 160 direct clinical hours; for course 429E, they complete minimum of 240 direct clinical hours. Letter grading.


438B. Pediatric Nurse Practitioner Clinical Practicum II. (6) Clinic practicum, 18 hours. Corequisite: course 238A. Complex assessment and intervention in selected pediatric populations. Developmental, health promotion, and chronic illness, disability, and developmental transitions. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments of individuals across lifespan. Students complete minimum of 160 direct clinical hours. Letter grading.

439D. Adult/Gerontology Primary Care Nurse Practitioner Practicum III. (6) Clinic practicum, 18 hours. Requisite: course 439B. Corequisite: course 239C. Third clinical practicum course for advanced practice nurses, with focus on nursing assessment and intervention in common illness-associated symptoms and complex patient/family presentations. Analysis, evaluation, and integration of current theory and research to provide basis for development of interdisciplinary treatment plan and interventions for acute and chronic problems across lifespan. Students complete minimum of 160 direct clinical hours. Letter grading.

439D. Adult/Gerontology Primary Care Nurse Practitioner Practicum IV. (6) Clinic practicum, 27 hours. Requisites: courses 439A through 439D. Designed to prepare adult/gerontology primary care nurse practitioners to provide clinical care and competencies necessary to assume role of primary healthcare providers for young adults, adults, and older adults. Use of patient-centered framework of care for prevention of common acute and chronic illness, disability, and developmental transitions. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to 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 Acute 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 or treatment of complex conditions, with emphasis on complications, and follow-up care in laboratory setting. 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 pathophysiology, pharmacology, nursing, and clinical knowledge. 17 units complete minimum of 500 unique CNS hours required for professional certification. Letter grading.

450. Advanced Practice Registered Nursing: Clinical Elective Independent Study. (2 to 10) Clinic practicum, eight hours. Clinical elective designed to enhance skills and competencies in student-selected advanced practice specialty or related practice dimension, with emphasis on application and integration of theory and evidence-based practice knowledge. S/U grading.


463. Nursing Care of Geriatric Patients and Families. (3) Lecture, two hours; clinical, one hour. Requisites: courses 252A, 252B, 260, 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 aspects of assessment and management for selected acute and emergent problems of maternity-newborn patients, with emphasis on social, cultural, and developmental influences. Promotes development and research, evidenced-based practice, and clinical reasoning. Nursing process, ethical principles, clinical knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, and communication concepts as applied to care of childbearing families. Application of theory, research, evidenced-based practice, and problem solving in clinical setting, interpretation of assessment and diagnostic data for purposes of planning, implementing, and evaluating care for maternity-newborn individuals and families. Emphasis on knowledge, skill, and attitude to enhance skills and competencies in student-selected populations. Assessment, health maintenance, and management of symptomatology among childbearing women and newborns. 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, diagnostics, pharmacology, therapeutic interventions, family-centered care, and ethical and legal principles as applied to pediatrics. Students demonstrate leadership, evidence-based practice, problem-solving, and critical thinking strategies to improve patient safety, quality care, and health outcomes. Supervised practicum experience within setting of multidisciplinary team in clinical interpretation of assessment and diagnostic data for purposes of planning, implementing, and evaluating nursing care in pediatrics. Effective communication, teamwork, and collaboration with other health care systems. Integration of information management and technology to facilitate effective communication and support clinical decision making. Letter grading.
465A. Foundational Concepts for Tertiary Prevention and Care of Medical-Surgical Patients and Families. (4) Lecture, three hours; clinical, three hours. Corequisite: course 254B. Examination of nursing assessment and management of common health problems of acute and chronic illness setting in acute and community settings, health history, and diagnostic reasoning for selected health problems, with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, stress and adaptation, adult development theory, therapeutic interventions, and communication concepts as applied to care of hospitalized patients and families across adult lifespan. 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 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.


465C. Tertiary Prevention and Care of Complex Medical-Surgical Patients and Families. (8) Lecture, four hours; clinical, 12 hours. Corequisites: courses 204, 260, 465B. Examination of nursing assessment and management of acute and chronic health problems of acutely ill adults. Theory content in assessment, health history, and diagnostic reasoning, with emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, pharmacology, stress and adaptation, adult development theory, therapeutic interventions, patient safety, evidence-based practice, and communication concepts as applied to care of acutely ill medical-surgical patients, with complex and comorbid conditions, and focus on 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 maximize patient safety and quality care for acutely ill adults employed during clinical experiences. Letter grading.


470A. DNP Scholarly Project Course I: Project Conceptualization and Planning. (6) Lecture, two hours; clinical, four hours. Requisites: courses 401, 402, 404, 405, 407. Preparation: successful completion of first year of DNP didactic coursework. DNP students gain skills to plan research necessary to develop evidence-based project proposal and plan, which addresses practice issue affected by care microsystem. Provides structured didactic content and application of student's DNP scholarly project. Letter grading.

470B. DNP Scholarly Project Course II: Project Proposal. (8) Lecture, two hours; clinical, six hours. Requisite: course 470A. DNP students develop full DNP scholarly project proposal that reflects synthesis of student's knowledge from prior coursework and work in area of interest or expertise under direction of faculty mentor. Provides structured didactic content and application of student's DNP scholarly project. Letter grading.

470C. DNP Scholarly Project Course III: Project Implementation. (8) Lecture, two hours; clinical, six hours. Requisite: course 470B. Continued development of knowledge, skills, and abilities to implement chosen DNP scholarly project proposal. Students assume role of leadership in interprofessional collaboration, consultation, and partnership. Students receive direction from faculty mentor and direct 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. (6) Lecture, two hours; clinical, six hours. Requisite: course 470C. Students complete evidence-based DNP scholarly project. Students complete implementation phase, evaluate project, and write final DNP scholarly project manuscript. Students receive individual direction from faculty committee chair and peer feedback as final DNP scholarly project paper is written. Students are also mentored in making professional presentations and writing for publication. Letter grading.

495. Nursing Education Practicum. (2) Seminar, six hours. Supervised student teaching internship in preparation for academic roles. In-depth opportunity to gain skills in role of nurse educator within university setting, including application of instructional strategies and evaluation methods. S/U grading.

496A-496B-496C. Education Practicum in Nursing Practice I, II, III. (1-1-1) 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, including support of nurses in practice leadership. Emphasis on application of educational theory, program structure, content, appropriate curriculum development, methods of teaching and evaluation that can be applied in variety of different settings in which DNP advanced practices nurses teach. In progress (courses 496A, 496B) and letter (496C) grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA assistant dean for academic affairs, appropriate letter of reference from 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.

595. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Opportunity for individual graduate nursing students to pursue special studies or research interests. May be repeated for credit, but only 4 units may be applied toward graduate degree requirements. S/U grading.

597. Individual Study for Comprehensive Examination. (2 to 4) Tutorial, to be arranged. Opportunity for individual graduate nursing students to prepare for comprehensive examination. May be repeated once for credit, but only 4 units may be applied toward MSN degree requirements. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 12) Tutorial, to be arranged. Individualized faculty supervision of PhD dissertation research by student's chair. May be repeated for credit, but only 8 units may be applied toward PhD degree requirements. S/U grading.

OBSTETRICS AND GYNECOLOGY

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Obstetrics and Gynecology
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Erin N. Saleebly, MD, MPH, Vice Chair, Harbor-UCLA

Scope and Objectives

The medical student program in the Department of Obstetrics and Gynecology is designed to provide students with firm background in the essentials of women's health. The educational objectives are set forth by the Association of Professors of Gynecology and Obstetrics (APGO). Through a combination of didactic instruction and supervised clinical experience, students acquire the relevant clinical skills of history taking and physical examination and learn reproductive physiology from infancy to the postmenopausal period; antepartum, intrapartum, and postpartum obstetric care; and recognition and management of various gynecologic disorders. Third-year students work in ambulatory clinics and on inpatient services during a six-week core clerkship. Greater depth of experience is provided by elective clerkships during the fourth year that emphasize subspecialties such as maternal/fetal medicine, reproductive endocrinology and...
infertility, gynecologic oncology, and reproductive health.

For more details on the Department of Obstetrics and Gynecology, see the department website.

Obstetrics and Gynecology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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

Upper-Division Course

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

Oral Biology

School of Dentistry

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Associate Professors

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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

Jiong Li, PhD
Fang Wei, PhD

Scope and Objectives

Oral biology is the area of knowledge that deals with the development, structure, and function of the oral tissues and their interrelationships with other organ systems in normal and disease states. It is a multidisciplinary field that includes cell biology, bone biology, molecular biology, biochemistry, neuroscience, immunology, microbiology, and virology. The objective of the graduate program is to provide students with a sound foundation in these areas in order to pursue an academic or research career.

Graduate Study

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

Graduate Degrees

The Section of Oral Biology in the School of Dentistry offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Oral Biology. A combined DDS/Oral Biology MS or PhD or advanced certificate training/Oral Biology MS or PhD is also offered.

Oral Biology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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

Graduate Courses

201A. Advanced Oral Biology: Ontogenesis. (3) Lecture, three hours. Evolutionary perspective of cellular development from simple molecules that were formed during first billion years of Earth to development of cells, tissues, and organs of invertebrates and vertebrates. Development of vertebrate feeding apparatus from comparative anatomy and physiological point of view, followed by embryogenesis of orofacial and dental structures of humans. S/U or letter grading.

201C. Advanced Oral Biology: Pathobiology. (3) Lecture, three hours. Molecular basis for pathogenic processes in tissues of oral cavity. Topics include microbially mediated demineralization of hard tissues, soft tissue infections, carcinogenesis, colonization of mucosal substrates by opportunists, etc. S/U or letter grading.

M204. Mechanisms and Relief of Pain, (2) [Same as Neuroscience M233.] Lecture, two hours. Advanced treatment of neuroanatomical, neurophysiological, and biochemical bases of pain perception. Topics include classical pain theories, pain receptors and pathways, endogenous mechanisms of pain modula- tion, and pharmacological basis for treatment of pain disorders. Letter grading.

205A. Methodology in Research Design and Data Analysis. (2) Lecture, two hours. Designed for gradu- ate oral biology students. Integration of didactic lec- tures in descriptive and inferential statistics and in re- search design (emphasis on experimental design), presentation, and open discussion of specific needs of oral biology students when they design their research. Letter grading.


205C. Advanced Seminar: Comparative Effective- ness and Evidence-Based Research. (2) Seminar, one hour. Required coursework for courses 205A, 205B (may be taken concurrently). Hands-on experience in process of systematic review, as shared method in comparative effectiveness and evi- dence-based medicine. Specialized topics include level and quality of evidence assessments, accept- able sampling analysis, meta-analysis and meta-re- gression, and Bayesian-derived decision making follow- ing 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) Lec- ture, two hours. Preparation: basic immunology. Dis- cussion and analysis of current research dealing with immunological issues related to oral health, including HIV, opportunistic oral infections, periodontal pa- thology, oral immunopathology, caries immunology; endodontic immunology, etc. Letter grading.

208. Genomics and Proteomics in Oral Biology Re- search. (2) Lecture, one hour; discussion, one hour. Introduction to fundamentals and technical aspects of genomics and proteomics and analysis of data de- rived therefrom. Discussion of implications and applica- tions of genomics and proteomics in diagnostic protocols such as salivary diagnostics. Letter grading.

209. Scientific Ethics. (2) Seminar, two hours. Required coursework for graduate stu- dents in Oral Biology MS and PhD programs and for NRSHA trainees in School of Dentistry. Letter grading.

211. Biology of Temporomandibular Joint. (2) Lec- ture, two hours. Preparation: biology, 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) Sem- inar, one hour; discussion, one hour. Introductory course for graduate MS students. Guest seminars on topics of research in oral biology (pain pathways, im- munology, 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 hematopoiesis, 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 auto- immunity, cancer, and immunodeficiency syndromes. Letter grading.

215B. Current Advanced Research Topics in Im- munology. (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 de- velopments in immunology. Letter grading.

220. Integrative Biology and Biomaterials Science in Relation to Dentistry. (2) Lecture, one hour; labora- tory, 90 minutes. Introduction to integrative biology and biomaterials science by bringing together the diversity of disciplines that complement one another to un- ravel complexity of biology in biomaterials in relation to dentistry. Integration of bioengineering, materials sciences, and dental materials. Fundamentals of materials science in relation to dentistry, stem cell bi- ology, 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 individ- uals for academic and research careers in dental ma- terials science or broader area of biomaterials rele- vant to clinical dental practice. Fundamentals of dental materials and knowledge necessary to partici- pate in research and product development. Introduc- tion to materials science, with focus on major classes of materials used in dentistry, including polymers, metals, and ceramics, and providing up-to-date infor- mation 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 devel- opment of craniofacial region. Students required to present seminars on assigned topics that aid their un- derstanding and appreciation of course content that has application to their specific and professional fields. Letter grading.

227. Dental Embryology and Histology. (2) Lecture, two hours. Preparation: clinical immunology and histology 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.


229A. Culture, Ethnicity, and Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour; discussion, one hour. Examination of sociocul- tural, biological, and linguistic anthropology to under- stand factors that influence health and well-being, ex- perience and distribution of illness, prevention and treatment of sickness, healing processes, social rela- tions of therapy management, and cultural impor- tance and utilization of pluralistic medical systems. Theory, perspectives, and methods from clinical med-icine, public health, epidemiology, demography, and social sciences. Letter grading.

229B. Anthropological Perspectives on Global Health: Implications for Oral Biology and Medi- cine. (2) Seminar, one hour; discussion, one hour. What factors determine health, illness, and disease in global context, including political ecology of infec- tious diseases, climate change, mental health and reproductive health, global trade in legal and il- legal drugs, demography and health transition, struc- tural adjustment, problems associated with globaliza- tion of pharmaceuticals, antibiotic resistance, and globalization and health equ. Letter grading.

234. Seminar: Developmental Neuroendocrinime- nunology. (2) Seminar, two hours. Designed for graduate students. Psychological and physiological processes interwine, and one important aspect of psychoneuroimmunological research is characteriza-
Pathology and Laboratory Medicine

David Geffen School of Medicine

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Pathology and Laboratory Medicine
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E-mail contact

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PATHOLOGY AND LABORATORY MEDICINE

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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.

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 molecular, cellular, 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

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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.

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Pathology and Laboratory Medicine

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Graduate Courses


222. Hematopoiesis: Basic Biology and Clinical Implications. (4) Lecture, three hours; discussion, one hour. Required of graduate students. Considered on case by case basis. In-depth study of concepts and paradigms in hematopoietic development. Mammalian hematopoiesis and normal development, with focus on one aspect of clinical relevance of cellular development and equal emphasis on conceptual and experimental aspects of knowledge in field. Discussion of important pathological states within hematopoietic system, as well as established and novel avenues for therapy. Topics include hematopoietic stem cells and niche, transcriptional and epigenetic regulation of hematopoiesis, B- and T-lymphocyte development, myeloid, erythroid, and platelet development, immune responses, myeloid and lymphoid neoplasia, and bone marrow transplantation/gene therapy. S/U or letter grading.

M229. Molecular Mechanisms of Host/Pathogen Interaction. (4) (Same as Microbiology M229.) Lecture, two hours; discussion, two hours. Enforced requisites: Molecular Biology 254A through 254D. Molecular mechanisms of microbial interactions with eukaryotic host cells that result in disease or pathogen survival. Topics include pathogenesis of common vi-ruses, bacteria, fungi, and parasites, basis of toxin-mediated cell death, and immune suppression of microbial tissue damage. Letter grading.

M237. Cellular and Molecular Basis of Disease. (4) (Same as Biological Chemistry M237.) Lecture, two hours; laboratory, two hours. Preparation: one course each in molecular biology, cell biology, and biological chemistry. Discussion of key issues in disease mechanisms, with emphasis on experiments leading to understanding of these mechanisms. Identification of important questions still remaining unanswered. Letter grading.

238. Histology and Pathology for Graduate Students. (2) Laboratory, two hours. Designed for UCLA ACCESS or Cellular and Molecular Pathology graduate students. Knowledge of normal tissue, pathologic processes, and animal models as observed by light microscopy. Letter grading.

240. Transplantation Immunology from Benchside to Bedside. (4) Lecture, three hours; laboratory, one hour. Preparation: knowledge of basic immunology. Limited to graduate students. New developments in organ transplantation, updates on basic science of immune mechanisms, integration of basic science principles with clinical practice. Letter grading.

M255. Mapping and Mining Human Genome. (3) (Same as Human Genetics M255.) Lecture, three hours. Basic molecular genetic and cytogenetic techniques of mapping and mining of human genome. Review of current human genomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from mouse to human. Discussion of localization of disease genes. S/U or letter grading.

256. Seminar: Viral Oncology. (2) Seminar, two hours. Advanced research seminars designed to consider current developments in multiple areas of research in the cancer field. Students are responsible for presenting reports in class on current research, in addition to normal and abnormal blood cell development. S/U grading.


M258. Pathologic Changes in Toxicology. (4) (Same as Pharmacology M258.) Lecture, two hours; discussion, two hours. Enforced requisites: Pharmacology 220A, 220B, and 254A through 254D. Disease mechanisms and recognition of toxicant specific organ systems. Letter grading.

260. Immunopathology. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Enforced requisites: Microbiology 261. Advanced information for graduate and advanced undergraduate students regarding immune system anatomy, lymphocytic development, acute and chronic inflammation, hypersensitivity, and autoimmunity. Letter grading.

262. Cytogenetics and Genomics. (3) Lecture, three hours. Comprehensive guide so students gain sufficient knowledge in conventional and state-of-the-art cytogenetic and genomic principles and techniques and their utility in clinical research. Focus on relationship between various chromosomal and genomic abnormalities in humans as identified by basic and advanced technologies such as fluorescence in situ hybridization (FISH), chromosomal microarray analysis (CMA), and next-generation sequencing (NGS). All aspects of molecular cytogenetics and cytogenomics through didactic teaching sessions, journal seminars, and interactive discussions. S/U or letter grading.

270. Basic and Clinical Aspects of Developmental Hematology. (4) Lecture, two hours. Graduate- and postgraduate-level course that covers broad range of topics in both basic and clinical aspects of developmental hematology. Pediatric hematologic disorders provide important paradigm to study other development systems. Subjects include hematopoiesis, basic stem cell biology, angiogenesis, alternative models to study developmental hematology (zebrafish and Drosophila), basic physiology of normal and abnormal red cells, platelets, and white cells, leukemogenesis and new therapeutic strategies to treat leukemia, basic and clinical stem cell transplantation, state-of-the-art methods in developmental hematology (genomics, proteomics, and gene therapy, design of clinical trials, and biomathematical modeling) and statistics in developmental hematology. Letter grading.

M272. Stem Cell Biology and Regenerative Medicine. (4) (Same as Molecular, Cell, and Developmental Biology M272.) Lecture, two hours; discussion, two hours. Preparation for graduate students. Presentation of current knowledge of embryonic and adult stem cells and their roles in growth and development. Major emphasis on how advances in cell and molecular biology and tissue engineering can be applied to use of stem cells in regenerative medicine. Bioethical and legal issues related to stem cell research. S/U or letter grading.

280. Clinical Aspects and Molecular Biology of Bone Marrow Failure Syndromes. (4) Lecture, two hours. Limited to graduate students. Coverage of broad range of topics on both clinical and molecular aspects of bone marrow failure syndromes. Studies provide important paradigms to understand fundamental mechanisms of human disease in addition to normal blood cell development. Topics include basic biology and clinical features of aplastic anemia, myelodysplastic syndromes, Diamond Blackfan Anemia, Schwachman Diamond Syndrome, Fanconi Anemia, Dyskeratosis Congenita, Paroxysmal Nocturnal Hemoglobinuria, flow cytometry, and research approaches to study bone marrow failure syndromes. Journal club sessions include discussion of two journal articles per meeting—one clinical and one basic/translational. Students present at least one journal article and lead group discussion. S/U grading.


296. Research Topics in Pathology. (1 to 2) Research group meetings, one to two hours. Limited to departmental graduate students. Advanced study and analysis of current topics in pathology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (4 to 12) Tutorial, to be arranged. Individual research with members of the staff or of other departments, the latter for purpose of supplementing programs available in department. S/U grading.


PEDiATRICS

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Pediatrics
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PEDIATRICS

Scope and Objectives

The Department of Pediatrics has faculty members at seven teaching hospitals: Cedars-Sinai, Harbor-UCLA, Kaiser Permanente Los Angeles, and Olive View-UCLA medical centers; UCLA Mattel Children’s Hospital; UCLA Medical Center, Santa Monica; and Venice Family Clinic. For second-year medical students, the fundamentals of pediatric history and physical examination are taught at all sites as part of the pediatric clinical skills course. For third-year medical students, the required six-week clinical clerkship in pediatrics is offered at the following five sites: Cedars-Sinai, Harbor-UCLA, and Kaiser Permanente Los Angeles medical centers; UCLA Mattel Children’s Hospital/Olive View-UCLA Medical Center; and UCLA Medical Center, Santa Monica. For fourth-year medical students, in-depth subspecialty electives offered by the Department of Pediatrics are listed in the School of Medicine Handbook of Clinical Courses, as are advanced clinical clerkships. For more details on the Department of Pediatrics and courses offered, see the department website.

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

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

M215. Interdepartmental Course: Tropical Medicine. (2) (Same as Medicine M215 and Pathology M215.) Lecture, two and one half hours. Preparation: basic courses in microbiology and parasitology of infectious diseases in School of Medicine or Public Health. Study of current knowledge about diseases prevalent in tropical areas of world. Major emphasis on infectious diseases, with coverage of problems in nutrition and exotic noninfectious diseases. Syllabus supplements topics covered in classroom. S/U grading.

PHARMACOLOGY

See Molecular and Medical Pharmacology

PHILOSOPHY

College of Letters and Science

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Philosophy

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Mark D. Greenberg, JD, DPhil
Barbara Herman, MA, PhD (Gloria and Paul Griffin Professor of Philosophy)
Pamela Hieronymi, PhD
David B. Kaplan, PhD (Hans Reichenbach Professor of Scientific Philosophy)
Gavin Lawrence, DPhil
Calvin G. Normore, PhD (Brian P. Copenhaver Professor)
Michael A. Resscorla, PhD
Sherrilyn Roush, PhD
Seana Shiffrin, JD, DPhil
Sheldon R. Smith, PhD

Professors Emeriti

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Joseph Almog, DPhil
Brian P. Copenhaver, PhD (Steven F. and Christine L. Udvar-Hazy Professor Emeritus)
Donald A. Martin, BS
Herbert Morris, LLB, DPhil
Terence D. Parsons, PhD

Associate Professors

Samuel J. Cummings, PhD
Alexander J. Julius, PhD
Sean Walsh, PhD

Assistant Professors

Joshua D. Armstrong, PhD
Adam D. Crager, PhD
Daniela J. Dover, PhD
Katrina J. 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 undergraduate 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.
Contract courses (199) may be applied toward the major but not toward a group requirement. A maximum of 8 units of course 199 may be applied toward the major but not toward a group requirement. Courses 100A, 100B, 100C may not be applied toward any group requirement. No course used to satisfy the major or preparation requirements may be taken on a P/NP basis.

Students intending to do graduate work in philosophy should consult with both the graduate and undergraduate advisers.

Honors Program

Admission

To be admitted to the honors program, students must have taken at least three upper-division philosophy lecture or seminar courses at UCLA with an overall grade-point average of 3.7.

Requirements

To be awarded honors in philosophy at graduation, Philosophy majors must (1) have a 3.7 grade-point average in UCLA philosophy courses and a 3.7 GPA in upper-division UCLA philosophy courses; (2) satisfy the honors directed study requirement by taking Philosophy 198A and 198B in conjunction (usually, but not necessarily concurrently) with two different regular upper-division philosophy courses supervised by the instructors of those courses; and (3) receive a grade of A– or better in each course applied toward satisfaction of the honors requirement.

Students may substitute Philosophy 191 for either course 198A or 198B or, alternatively, may complete up to two philosophy graduate seminars in lieu of courses 198A and/or 198B. For an undergraduate or graduate seminar to be applied toward the honors directed study requirement, the consent of both the seminar instructor and the faculty honors adviser is required in advance. Students may also substitute up to one 4-unit Philosophy 199 course in which they produce a substantial paper that represents an original piece of research or its equivalent.

Exceptional work done to satisfy the honors requirement may be submitted to the department chair for consideration for highest honors.

Philosophy Minor

To enter the Philosophy minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (8 units): Philosophy 7 or 21, and 22 or 31.

Required Upper-Division Courses (24 units): Five courses, including at least one from each of three of the four groups into which the undergraduate and graduate courses are divided (Philosophy 100A, 100B, 100C apply toward Group I); one additional upper- or lower-division philosophy course.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

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

Graduate Degrees

The Department of Philosophy offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Philosophy. A concurrent degree program (Philosophy PhD/Law JD) is also offered.

Philosophy

Lower-Division Courses

1. Beginnings of Western Philosophy. (5) Lecture, three hours; discussion, one hour. Origins of Greek cosmology and philosophy, beginnings of systematic thought and scientific investigation concerning such questions as origin and nature of the material world, concept of laws of nature, possibility and extent of knowledge. Concentration on pre-Socratic philosophers, particularly Anaximander, Heracitus, the Pythagoreans, Parmenides, Empedocles, and Greek atomists, during first two thirds of course and on Socrates and some of the 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. Survey of selected problems concerning the character and reliability of scientific understanding, such as nature of scientific theory and explanation, reality of theoretical entities, inductive confirmation of hypotheses, and occurrence of scientific revolutions. Discussion at nontechnical level of episodes from history of science. P/NP or letter grading.

9. Principles of Critical Reasoning. (5) Lecture, four hours; discussion, one hour. Nature of arguments: how to analyze them and assess soundness of reasoning they represent. Common fallacies that often occur in arguments discussed in light of what counts as good deductive or inductive inference. Other topics include use of language in argumentation to arouse emotions as contrasted with conveying thoughts, logic of scientific experiments and hypothesis-testing in general, and some general ideas about probability and its application in making normative decisions (e.g., betting). P/NP or letter grading.

10. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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. Recommended 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.

23. Meaning and Communication. (5) Lecture, three hours; discussion, one hour. Theory of meaning and its relationship to philosophy more generally; nature, origins, and acquisition of language. Additional topics may include nonlinguistic and nonhuman systems of communication; theories of interpretation in law, literature, and art; use of theoretical terms in science. P/NP or letter grading.

M24. Language and Identity. (4) (Same as Linguistics M74) 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; raging 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 of quantification; forms of reasoning and structure of language. P/NP or letter grading.
89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with consent of instructor. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Freshman Seminar. (4) Variable topics; consult Schedule of Classes or "Department Announcements" for topics to be offered in a specific term. May be repeated for credit with consent of instructor.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours. 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). Enrollment required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A. History of Greek Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Survey of origins of Greek metaphysics from pre-Socratics through Plato and Aristotle. P/NP or letter grading.

100B. Medieval and Early Modern Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended requisite: course 100A. Survey of development and transformation of Greek metaphysics and epistemology within context of philosophical theology, and 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, 1650 to 1800. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended requisite: course 100B. Courses 100A, 100B, and 100C may be repeated for credit with consent of instructor. May be repeated for credit with consent of instructor. P/NP or letter grading.

101. Philosophy of Science. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. May be concurrently scheduled with course C214. P/NP or letter grading.


103. Kant. (4) Lecture, four hours. Preparation: one philosophy course. Study of Kant’s major works. May be repeated for credit with consent of instructor. 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 interaction of Islam with ancient philosophy to period of hegemony of Ottoman Empire. Figures examined may vary but usually include many of al-Kindi, Ibn Sina (Avicenna), al-Ghazali, ben Maimon (Maimonides), Ibn Rushd (Avernoes), and Suhrawardi. 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 to 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.

108. 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 C209. P/NP or letter grading.

109. Descartes. (4) Lecture, four hours; discussion, one hour. Preparation: course 21 or two philosophy courses. Study of works of Descartes, with discussion of issues such as problem of skepticism, foundationalism, nature of existence of God, relations 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: course 21. Study of philosophy 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: 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. May be repeated for credit with consent of instructor. P/NP or letter grading.

115. Kant. (4) Lecture, three hours; discussion, one hour. Preparation: course 21 or 22. Study of Kant’s views on related topics in theory of knowledge, ethics, and politics. May be repeated for credit with consent of instructor. Concurrently scheduled with course C215. P/NP or letter grading.

116. 19th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in 19th-century thought.

117. Late 19th- and 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: Boltzmann, Frege, Husserl, Meinong, G. Moore, early Russell, and Wittgenstein. May be repeated for credit with consent of instructor.

118. Kierkegaard. (4) Preparation: one philosophy course. Philosophical study of some major works of Kierkegaard, with emphasis on interpretation of the texts.

C119. Topics in Modern Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics 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 C219. P/NP or letter grading.

Group II: Logic, Semantics, and Philosophy of Science

124. Philosophy of Science: Historical. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Historical introduction to philosophy of science. Several general topics discussed in context of actual episodes in development of natural sciences. May be repeated for credit with consent of instructor.

125. Philosophy of Science: Contemporary. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Two philosophy courses. Discussion of topics in philosophy of social sciences (e.g., methods of social sciences in relation to physical sciences, value-bias in social inquiry, concept formation, theory construction, theory evaluation and prediction, nature of social laws).

C127A. 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, indirect discourse, indexical terms, semantical paradoxes. May be repeated for credit with consent of instructor. Concurrently scheduled with course C222B. P/NP or letter grading.

C127B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Preparation: course 31 and 124. Introduction to contemporary philosophy of science, focusing on problems of central importance. May be repeated for credit with consent of instructor.

126. Philosophy of Science: Social Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Survey of topics in philosophy of social sciences (e.g., methods of social sciences in relation to physical sciences, value-bias in social inquiry, concept formation, theory construction, theory evaluation and prediction, nature of social laws).

C127A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course. 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 C222B. P/NP or letter grading.

C127B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course. Recommended: course C217A or C217B. Selected topics similar to those considered in course C217B, but with focus on contemporary issues. May be repeated for credit with consent of instructor. Concurrently scheduled with course C222C. P/NP or letter grading.

128. Topics in 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, arithmetical reductionism, ramified type theory, and predicative definition (Russell, Poincaré, early Weyl); intuitionism
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 recent work 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.

132. Logic, Second Course. (4) (Formerly numbered 137.) Lecture, four hours; discussion, one hour. Enforced requisite: course 131 (preferably during preceding term). Syntactic logic: extension of systematic development of course 31. Quantifiers, identity, definite descriptions. P/NP or letter grading.

133. Topics in Logic and Semantics. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Possible topics include formal theories, definitions, alternative theories of descriptions, many-valued logics, deviant logics. May be repeated for credit with consent of instructor. P/NP or letter grading.


135. Introduction to Metalogic. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Strongly recommended requisite: course 132 or Mathematics M114S. Lecture, three hours; discussion, one hour. Enforced requisite: course 131 or Mathematics 110A or the theory of formal systems as framework for mathematical concepts; relations and functions, numbers, cardinality, axiom of choice, transfinite numbers. 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. Possible topics 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 explication and interpretation of the texts. May be repeated for credit with consent of instructor.

178. Phenomenology, (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Introduction to phenomenological method of approaching 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, relativism, 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. May be repeated for credit with consent of instructor. 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

M187. Philosophical Analysis of Issues in Feminist Theory, (4) (Same as Gender Studies M110C) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Examination of 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 for credit 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 from 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. Preparation: one Honors Program. Designed as advanced seminar for Honors students. Tutorials will be 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 honors program students. Critical study of one course to be taken in conjunction with upper-division philosophy lecture course, either concurrently or in subsequent term, under direct supervision of lecture course instructor. Advanced study is critical study of lecture course, further reading, and preparation of 12- to 15-page paper representing original research. Courses 198A and 198B must be taken in conjunction with two different lecture courses, and both must be taken to satisfy departmental honors requirement. May be repeated for credit. Individual contract required. Letter grading.

198C. Honors Research in Philosophy, (4) Tutorial, four hours. Limited to junior/senior philosophy honors program students. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Philosophy, (4) Tutorial, four hours. Preparation: one or two philosophy courses. Critical study of one topic or two related topics. May be repeated for credit. May be repeated for credit. Letter grading.

201. Seminar: History of Medieval Philosophy, (4) Seminar, three hours. Limited to and required of all first-year graduate philosophy students. Selected topics in metaphysics and epistemology, history of philosophy, and ethics. S/U or letter grading.

Group I. History of Philosophy

201. Plato, (4) Seminar, four hours. Study of later dialogues, S/U or letter grading.


206. Topics in Medieval Philosophy, (4) Lecture, four hours. Study of philosophy and theology of one or several medieval thinkers such as Augustine, Aquinas, Abelard, Aviceira, Scotus, or Ockham or study of single area such as logic or theory of knowledge in several medieval philosophers. Topics announced each term. May be repeated for credit with consent of instructor. S/U or letter grading.

207. Seminar: History of Medieval and Renaissance Philosophy, (4) Seminar, four hours. Selected problems and philosophers. May be repeated for credit with consent of instructor. S/U or letter grading.

208. Hobbes, (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. History of political philosophy, especially that of Hobbes, with attention to its relevance to contemporary political philosophy. May be concurrently scheduled with course C108. S/U or letter grading.

210. C209HC. Honors Contracts, (1) Tutorial, four hours; discussion, one hour. Study of works of Descartes, with discussion of issues such as problem of skepticism, foundations of knowledge, existence of God, relation between mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C109. S/U or letter grading.

210. Spinoza, (4) Lecture, three hours. Selected topics in philosophy of Spinoza. May be concurrently scheduled with course C110, in which case there is 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: one or two philosophy courses. Study of philosophy of Hume. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C114. S/U or letter grading.

215. Kant, (4) Lecture, three hours; discussion, one hour. Preparation: two or three courses. 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 two philosophy courses. Study of one or more topics of pre-1900 philosophy. May be 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. 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. Preparation: Mathematics M114S. Sets, relations, functions, partial and total orderings; well-orderings. Ordinal and cardinal arithmetic, finiteness and infinity, countability, hypothesis of the continuum. 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. Preparation: M114S. Development of contemporary axiomatic set theory by examining selected writings of Cantor, Russell, Zermelo, Gödel, and several others. Origins and significance of certain key ideas, such as the set-theoretic paradoxes, axiom of choice, and reaction to paradoxes, formal first-order axiomatic set theory as opposed to informal axiomatics, type theory and rank
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. Selected topics on normative issues in practical rationality or philosophy of action. Topics may include moral and practical dilemmas, nature of reasons for action, rationality of moral actions, rationality of one’s own actions, and the role of rationality in 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. Requisite: course 227B. May be repeated for credit with consent of instructor. S/U or letter grading.

254. Legal Theory Workshop. (1 to 8) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

255. Philosophy of Legal Theory. (4) Lecture, three hours. Examination of topics such as concept of law, nature of justice, problems of punishments, legal reasoning, and obligation to obey the law. May be repeated for credit with consent of instructor.

257. 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 each) (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, remedial approaches to breaches including larger role for unjust enrichment, and contract law’s treatment of fraud and deception. Readings from legal and philosophical literature. S/U or letter grading.

259. Philosophical Research in Ethics and Value Theory. (2 to 4) Seminar, two hours. Preparation: completion of proposition requirement. Presentation of ongoing research by graduate students. Participants make presentations, 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 letter grading.

Group IV. Metaphysics and Epistemology

271. Seminar: Topics in Metaphysics and Epistemology. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

272. Topics in Philosophy of Mind and Language. (4) Seminar, three hours. One or more selected topics in philosophy of mind and/or language. May be repeated for credit with consent of instructor. May not be used to satisfy special area requirement. S/U or letter grading.

275. Human Action. (4) Preparation: two upper-division philosophy courses. Examination of theories, concepts, and problems concerning human actions. Topics may include analysis of intentional actions; determinism and freedom; nature of explanations of intentional actions. May be repeated for credit with consent of instructor.

280. 20th-Century Continental Philosophy. (4) Seminar, three hours. Selected topics in 20th-century Continental European philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

281. Seminar: Philosophy of Mind. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

282. Seminar: Metaphysics. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

283. Seminar: Theory of Knowledge. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

284. Seminar: Philosophy of Perception. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

285. Philosophy of Psychoanalysis. (4) Seminar, three hours. Examination of topics such as nature and validity of psychoanalytic explanations and interpretations, psychoanalysis and language, metapsychological concepts such as the unconscious, ego, id, superstructure, defense mechanisms, and psychoanalytic conception of human nature. S/U or letter grading.
286. Philosophy of Psychology. (4) Seminar, four hours. Relevance of computer simulation to accounts of thinking and meaning; relations between semantic theory and learning theory; psychological aspects of theory of syntax; behaviorism, functionalism, and alternatives; physiology and psychology. S/U or letter grading.

287. Seminar: Philosophy of Language. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

288. Seminar: Wittgenstein. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

289. Seminar: Philosophy of Religion. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

290. Workshop: Philosophy of Language. (2 or 4) Seminar, two hours. Ongoing discussion of current issues in philosophy of language based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U grading.

291. Workshop: Philosophy of Mathematics. (4) Seminar, three hours. Ongoing discussion of current issues in philosophy of mathematics based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U or letter grading.

299. Seminar: Philosophical Research. (4) Seminar, three hours. Preparation: advancement to candidacy. Presentation of ongoing research by graduate students. May be repeated for credit. S/U grading.

310. Critical Thinking. (3) Lecture, three hours. May be repeated for credit. S/U grading.

495. Teaching College Philosophy. (2 to 4) Seminar, two hours. Observation and discussion of current issues in college teaching. May be repeated for credit with consent of instructor. S/U or letter grading.


502. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. Properly qualified graduate students who wish to pursue one problem through reading or advanced study may do so if their proposed project is acceptable to one staff member. May be repeated for credit. S/U or letter grading.

503. Directed Studies for Graduate Examinations. (2 to 8) Tutorial, to be arranged. Preparation for MA comprehensive examination or PhD oral qualifying examinations. S/U grading.

504. Research for PhD Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: advancement to PhD candidacy. May be repeated for credit. S/U grading.

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Dolores Bozovic, PhD, Vice Chair, Resources
James E. Larkin, PhD, Vice Chair, Astronomy
Ian S. McLean, PhD, Vice Chair, Academic Affairs

**Professors**
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Dolores Bozovic, PhD
Stuart E. Brown, PhD
Robijn F. Bruinsma, PhD
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Ferdinand V. Corolinit, PhD
Robert D. Cousins, PhD
Eric D’Hoker, PhD
Sergio Ferrara, PhD
Christian Fronsdal, PhD
Steven R. Furlanetto, PhD
Walter N. Gekelman, PhD
Graciela B. Gelmini, PhD
Andrea M. Ghez, PhD
(Saurabh Bose, PhD, Associate Professor)
George Gruner, PhD
Michael Gutperle, PhD
Bradley M. Hansen, PhD
Jay Haeuser, PhD
Karoly Holczer, PhD
Huan Z. Huang, PhD
Eric R. Hudson, PhD
Frank S. Jenko, PhD
David C. Jewitt, PhD
Hong-Wei Jiang, PhD
Per J. Kraus, PhD
Alexander Kusenko, PhD
James E. Larkin, PhD
Alexander J. Levine, PhD
Matthew A. Malkan, PhD
Jean-Luc Margot, PhD
Thomas G. Mason, PhD
Ian S. McLean, PhD
Mayank R. Mehta, PhD
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George J. Morales, PhD
Warren B. Mori, PhD
Mark R. Morris, PhD
Pietro Musumeci, PhD
William I. Newman, PhD
Christoph Niemann, PhD
Rene A. Ong, PhD
Seth J. Puttermann, PhD
James Rosenzweig, PhD
David Saltzberg, PhD
Alice E. Shapley, PhD
E.T. Tomboulis, PhD
Tommaso L. Treu, PhD
Yaroslav Tserkovnyak, PhD
John J. Turner, PhD
Vladimir V. Vassilev, PhD
Kang L. Wang, PhD
Gary A. Williams, PhD
Giovanni Zocchi, PhD

**Professors Emeriti**
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Eric E. Becker, PhD
Rubin Braunstein, PhD
Charles D. Buchanan, PhD
W. Gilbert Clark, PhD
John M. Cornwall, PhD
Robert J. Finkelstein, PhD
Roy P. Haddock, PhD
George J. Igo, PhD
Steven A. Moszkowski, PhD
C. Kumar N. Patel, PhD
Roberto Peccei, PhD
Claudio Pellegrini, PhD
William E. Slater, PhD
Reiner L. Stenzel, PhD
Roger K. Ulrich, PhD
Alfred Y. Wong, PhD
Chun Wa Wong, PhD
Edward L. Wright, PhD (David S.axon Presidential Professor Emeritus of Physics)
Benjamin M. Zuckerman, PhD

**Associate Professors**
Michael P. Fitzgerald, PhD
Brian C. Regan, PhD
Rahul Roy, PhD
Hilke E. Schlichting, PhD

**Assistant Professors**
Michail Bachits, PhD
William C. Bardeen, PhD
Thomas D. Dumitrescu, PhD
Paul Hamilton, PhD
Zhongbo Kang, PhD
Smsdrar Naoz, PhD
Ni Ni, PhD
Shenshen Wang, PhD
Nathan Whitehorn, PhD

**Adjunct Professors**
Elinu Abrahams, PhD
David Schriver, PhD
Slava G. Turyshev, PhD

**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 supermassive black holes; course 5 concentrates on the problem of life in the universe; course 6 discusses the structure and evolution of the universe.
Astronomy 81 and 82 are general survey courses recommended for science majors in their second year. They systematically introduce astrophysics and require a good background in physics and mathematics (at least two terms of the Physics 1 series and two terms of the Mathematics 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, Chemistry and Biochemistry 20A, 20B, 30A, 30B; Life Sciences 7A, 7B, 7C; Mathematics 31A, 31B, 32A, 32B, 33A, 33B. Recommended: Physics 18L.

Transfer Students
Transfer applicants to the Biophysics major with 90 or more units must have completed the following introductory courses prior to admission to UCLA: two years of calculus, one and
one half years of calculus-based physics with laboratory for majors, one year of general biology with laboratory for majors, and one year of general chemistry with laboratory for majors. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Physics 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 condense 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. Preapproved plans of study are available from the departmental 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.

Honors Programs

- 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

Required: Physics 105A, 105B, 110A, 110B, 112, 115A, 115B, 115C, 131, one course from Physics 118 and 180A through 180Q, which should be taken in the senior year; (3) there must be three additional upper-division courses in the plan, preferably selected from Physics 108, 114, 117, M122, 123, 124, 126, 127, 128, 132, 140A, 140B, 144, 150, C187A, 188A; (4) there must be written rationale for the plan. Except for the Physics 180 laboratories, the courses need not be in the Physics and Astronomy Department. However, it is expected that the courses fit into a coherent structure. It is important that the structure and rationale are thought out carefully, as the plan must be endorsed by the designated adviser and be approved by the departmental academic affairs committee. Preapproved plans of study are available from the departmental 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

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 intended to major in physical sciences, on develop-
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 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 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 honors contract required. Honors content noted on transcript. Letter grading.

90. Research Colloquia in Astrophysics. (2) Seminar, two hours. Designed to bring together students unfamiliar with advanced 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.

94. Research Group Seminars: Astrophysics. (1) Research group meeting, one hour. Designed for undergraduate students who are part of research group/lab. Discussion of research of faculty members or students with regard to understanding methodology in field and/or laboratory equipment. May be repeated for credit. P/NP grading.

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). Probability distributions, partition functions, black body radiation, Saha equation, degeneracy. Applications to stellar atmospheres, stellar interiors, and interstellar medium. P/NP or letter grading.


148A-148Z. Lower Division Seminars. (2 each) Seminar, two hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. P/NP or letter grading.

188A. Cosmic Evolution. (2 Seminar, two hours. Limited to freshmen. Varied astronomical and physical processes of 13.8 billion years. Observation of how over billions of years, basic mechanisms of cosmic evolution have transformed universe from tenuity at Big Bang into abode for intelligent life. P/NP or letter grading.

188B. Lower Division Seminars. (2) Seminar, two hours. Variable topics; consult Schedule of Classes for topics to be offered in specific 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 individual meetings, group discussions, and other activities and led by lecture course instructor. May be repeated for credit. Individual honors contract required. Honors content noted on transcript. Letter grading.

May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Astrophysics. (2) Seminar, two hours. Designed to bring together students unfamiliar with advanced 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.

194. Research Group Seminars: Astrophysics. (1) Research group meeting, one hour. Designed for undergraduate students who are part of research group/lab. Discussion of research of faculty members or students with regard to understanding methodology in field and/or laboratory equipment. May be repeated for credit. P/NP grading.

198. Research Apprenticeship in Astrophysics. (2 to 4) Tutorial, 12 hours. Limited to juniors/seniors with minimum overall 3.0 grade-point average. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

199. Directed Research or Senior Project in Astronomy. (2 to 4) Tutorial, two hours. Limited to juniors/seniors with minimum overall 3.0 grade-point average. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses


596A. Directed Individual Studies. (4 to 10) Tutorial, to be arranged. May be repeated for credit. S/U grading.


296. Research Topics in Astronomy. (2) Seminar, three hours; discussion, one hour; laboratory, two hours. Requisite: consent of department. S/U grading.

Lecture, three hours. Enforced requisites: courses 1A or 1AH, 1B or 1BH, Mathematics 31A, 31B, 32A, 32B. Enforced corequisite: course 31C. Required corequisite: course 1B or 1BH. Recommended corequisite: course 1A or 1AH. Enforced corequisite: course 32A, 32B. Enforced corequisite: course 1C. Recommended corequisite: Mathematics 33A. Enforced enrichment for upper-division physics courses. Same material as course 1 but in greater depth; recommended for Physics majors and other students desiring such coverage. P/NP or letter grading.


2B. Physics Laboratory for Scientists and Engineers: Electricity and Magnetism. (2) Laboratory, three hours. Enforced requisites: courses 1A or 1AH, 1B or 1BH, 1CH. Experiments on measuring current, acceleration, and size for educational purposes. Experimental techniques. Detection and statistics of many objects. Habitable zones. Letter grading.


296. Research Topics in Astronomy. (2) Seminar, three hours; discussion, one hour; laboratory, two hours. Requisite: consent of department. S/U grading.

596A. Directed Individual Studies. (4 to 10) Tutorial, to be arranged. May be repeated for credit. S/U grading.


296. Research Topics in Astronomy. (2) Seminar, three hours; discussion, one hour; laboratory, two hours. Requisite: consent of department. S/U grading.
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 physical principles. P/NP grading.

98. Lower Division Seminar: Current Topics in Physics. (2) Limited to freshmen/sophomores. Intensive exploration of a particular theme or topic based on semester research. Consult Schedule of Classes for topics to be offered in a particular term. P/NP or letter grading.

99. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as an adjunct to lower-division lecture courses 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.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an adjunct to lower-division lecture course. Individual study with lower-division instructor to 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. Students work in small groups on 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; discussion, one hour. Enforced requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32A, 32B. Open to lower-division students under guidance of faculty mentor. 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.

98XB. PEERS Collaborative Learning Workshops for Physical Sciences and Engineering Majors. (1) Laboratory, three hours; discussion, one hour. Open to lower-division students under guidance of faculty mentor. 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.

109. Optical Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110B. Interaction of light with matter; dispersion theory, oscillator strength, line widths, molecular scattering. Coherence theory. Kirchhoff formulation of diffraction theory, crystal optics, optical rotation, electro and magneto optical effects. Additional topics of fundamental or current interest. P/NP or letter grading.

110A. Electricity and Magnetism. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). 131, Mathe- matics 32B, 33A, 33B. Electrostatics and magnetostatics. 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. Three-dimensional problems. Application 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; introduction to basic electronic concepts, principles of information science, and their practical applications. P/NP or letter grading.
118. Electronics for Physical Measurements. (4) 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 simple electronic circuits with use of operational amplifiers, digital 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 followers, cosmic ray detector. P/NP or letter grading.

M122. Introduction to Plasma Electronics. (4) (Same as Electrical Engineering 101A.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 110A or Electrical Engineering 101A. Senior-level introductory course on electron dynamics of ionized gases and applications to materials processing, generation of coherent radiation and particle beams, and renewable energy sources. Letter grading.

123. Atomic Structure. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Theory of atomic structure. Interaction of radiation with matter. P/NP or letter grading.

124. Nuclear Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Nuclear properties, nuclear forces, nuclear structure, nuclear decays, and nuclear reactions. P/NP 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/NP or letter grading.

140A. Introduction to Solid-State Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 112. Introduction to basic theoretical concepts of solid-state physics with applications. 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. How physical properties of polymers can be derived from mathematical models of chains and coils. Comparison of these models to calculations of specific heat and problem and used to predict mechanical characteristics of large molecules. Study of networks of polymers and polymeric fluids, with focus on their viscoelastic properties and the movement of individual polymers within melts. Study of examples of more complex structures, such as polymer fractals. Consideration of applications of this work to biology, with focus on evolution and the role of radiation. Letter grading or P/NP.

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), 110A, 110B, 115A, 115B. Physics of charged-particle and laser beams presented as a unified subject. Basic physics of charged-particle beams, covering: beam physics in electro-magnetic fields, transverse focusing, acceleration mechanisms, linear and circular accelerators, and advanced topics. Some fundamentals of laser physics, including: laser physics, measurement of mechanical resonances of bar, FM transmitter, speed of sound using radio-frequency pulsed ultrasound, sun-following followers, cosmic ray detector. P/NP or letter grading.

151. Energy in Modern Economy. (4) (Same as Environment M155.) Lecture, three hours. Requisites: courses 1A and 1B (or 6A and 6B), Mathematics 3A and 3B (or 31A and 31B), Statistics 12 or 13. Examination of physics of energy, history of energy development, and our society. Discussion of energy particularly in transportation and power grid. Prospects for decreasing availability of fossil fuels and impact of global warming on energy development. Current and potential sources of energy, and their relative strengths and weaknesses and use of them to understand link between neural circuits, their emergent neural dynamics, and behavior in example model systems. Discussion of mechanisms of interaction between neural circuits and their role in cognition, learning, and sleep. Computer laboratory component where students learn to write simple codes to quantify neural activity patterns. Concurrently scheduled with course C285. Letter grading.

C187A. Biological Physics I: Life at Rest. (4) (Formerly numbered 187B.) Lecture, three hours. Enforced requisites: courses 105A, 110A, 115A, Chemistry 14A or 20A, Mathematics 3A, 3B, 3C, 33A. How does mind emerge from brain? Provides summary of basic biophysics of neurons, synapses, and plasticity. Introduction to commonly used experimental and theoretical techniques of measuring, quantifying, and modeling neural activity, and their relative strengths and weaknesses. Use of them to understand link between neural circuits, their emergent neural dynamics, and behavior in example model systems. Discussion of mechanisms of interaction between neural circuits and their role in cognition, learning, and sleep. Computer laboratory component where students learn to write simple codes to quantify neural activity patterns. Concurrently scheduled with course C287A. P/NP or letter grading.


188A. Physics of Energy. (4) Lecture, three hours; discussion, one hour. Limitation to junior/senior Astrophysics and Physics majors. Departmentally sponsored temporary courses such as pilot courses or those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

188B. Physics of Electronics. (4) Lecture, three hours; discussion, one hour. Limitation to junior/senior Astrophysics and Physics majors. Departmentally sponsored temporary courses such as pilot courses or those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

190A. Computational Physics and Astronomy Laboratory. (4) (Formerly numbered 188B.) Lecture, one hour; laboratory, six hours. Requisites: courses 105A, 105B, 110A, 110B, 112 (or Astronomy 115), 115A, 115B. Prior experience in working with computers helpful but not required. Designed to give first-hand experience in solving physics and astronomy problems on computers. Project-based course, with projects selected from core areas of classical mechanics, electromagnetics, quantum mechanics, statistical physics, and astronomy. Introduction to problems and to required numerical methods in lectures so students can write programs in one modern programming language of their choice (Fortran or C) and carry out numerical experiments with it, with results documented in reports. P/NP or letter grading.

190Q. Quantum Optics Laboratory. (4) Lecture, two hours; laboratory, six hours. Requisites or corequisites: course 115C. Limited to junior/senior Astrophysics and Physics majors. Use of techniques of quantum optics to demonstrate concepts of quantum mechanics, including: superposition, quantum measurement, hidden variable theories, and Bell’s inequality. Examination and use of modern optics, including lasers, optics, fibers, polarization manipulation, and photon counting. Letter or P/NP grading.

190S. Computational Physics and Astronomy Laboratory. (4) Lecture, three hours. Enforced requisites: courses 1A, 1B, and 1C, 17, Mathematics 31A, 31B, 32A, 32B, 33A. Description of underlying physical systems are based on well-known undergraduate-level physics principles such as mechanics, electromag-
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/NP or letter grading.

188L. Special Laboratory Courses in Physics
Lecture, one hour; laboratory, two hours. Limited to junior/senior departmental majors. Departmentally sponsored temporary laboratory courses such as pilot courses taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study under guidance of faculty mentor. May be repeated for credit. P/NP or 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/NP or letter 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 for credit by petition. P/NP or letter grading.

192. Undergraduate Practicum in Physics. (2 to 4) Seminar, three hours. Limited to juniors/seniors. Training and experience for future under-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/NP or letter grading.

193. Journal Club Seminars: Physics. (2) Lecture, three hours. Designed to explore in greater depth topics presented in modern physics research areas, with emphasis on those actively pursued at UCLA. S/U grading.


213B. Advanced Atomic Structure. (4) N+ symbols, continuous groups, fractional parentage coefficients, n electron systems. S/U or letter grading.


244. Introduction to Strong Interaction. (4) Lecture, three hours. Evidence concerning strong interac- tion, particularly as exemplified in nuclear/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 Lagrangians, conformal field theory, and topological aspects of anomalies. S/U or letter grading.

231A. Methods of Mathematical Physics. (4) Lecture, three hours. Not open for credit to students with credit for Mathematics 266A. Linear operators, review of functions of a complex variable, integral transforms, partial differential equations. S/U or letter grading.


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 quantum fields and supersymmetry 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.


237B. String Theory. (4) Lecture, four hours. Requisite: course 237A. Topics include toroidal compactification, t-duality and d-branes, supersymmetric strings, orbitifolds, 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 statistical mechanics 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 emphasizing interplay among design goals, component performance, and operational experience. S/U grading.

269D. Strobe Seminar Series: Frontiers in Imaging and Microscopy. (4) Seminar, one hour. Discussion with leading figures of frontiers of imaging and microscopy fields, including multi-dimensional electron microscopy at atomic resolution, real-time functional microscopy with X-rays, and new varieties of advanced materials, advanced optical nano-imaging, and integrative approaches and underpinning technologies for different imaging modalities. May be repeated twice for credit. S/U grading.

269E. 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 dynamics. Plasma waves and nonlinear phenomena. Advanced probe, microwave and plasma diagnostics.

269F. Foundations of Physics. (4) Lecture, three hours. Historical development and philosophical sources of classical and modern physics. Concurrently scheduled with course C187A.

269G. Neuropsychophysics. Brain-Mind Problem. (4) Formerly numbered CM286.) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C, or 5A, 5B, and 5C. Chemistry 14A or 20A, Mathematics 3A, 3B, 3C, 33A. How does mind emerge from brain? Provides summary of basic biophysics of neurons, synapses, and plasticity. Introduction to commonly used experimental and theoretical techniques of measuring, quantifying, and modeling neural activity, and their relative strengths and weaknesses and use of them to understand link between neural networks and behavior in example model systems. Discussion of mechanisms of interaction between neural circuits and their role in cognition, learning, and sleep. Computer laboratory component where students learn to write simple codes to quantify neural activity patterns. Concurrently scheduled with course C186, S/U or letter grading.

267A. Biological Physics I: Life at Rest. (4) Lecture, three hours. For enrolled requisites: courses 105A, 110A, 115A, Chemistry 110A, Molecular, Cell, and Developmental Biology 100 or M140 or M165A. Equilibrium phenomena. Application of basic mechanics, optics, and thermodynamics to biological design: structure of skeleton, scaling of bone and muscle mass, swim bladders, and animal vision. Application of elementary statistical physics, electrostatics, and electricity to structure of cell walls, DNA, and biomembranes. Concurrently scheduled with course C187A. 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 theoretical. May be repeated for credit. S/U grading.

291. Research Tutorial: Elementary Particle Theory. (2 or 4) Requisites: courses 226A, 230A, 230B. Required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion by staff, postdoctoral fellows, and graduate students. May be repeated for credit. S/U grading.

292. Research Tutorial: Spectroscopy, Low-Temperature, and Solid-State Physics. Required of each graduate student doing research in these fields, ordinarily during second or third year. Seminar and discussion by staff and students on problems of current research interest in spectroscopy, low-temperature, and solid-state physics. May be repeated for credit. S/U grading.
PHYSICS AND BIOLOGY IN MEDICINE

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Program e-mail

Michael McNitt-Gray, PhD, Chair
Magnus Dahlbom, PhD, Graduate Adviser

Faculty Committee
Magnus Dahlbom, PhD (Molecular and Medical Pharmacology)
Dieter R. Enzmann, MD (Radiological Sciences)
Michael McNitt-Gray, PhD (Radiological Sciences)
Michael E. Phelps, PhD (Biomathematics, Molecular and Medical Pharmacology)
Michael L. Steinberg, MD (Radiation Oncology)

Scope and Objectives
The Physics and Biology in Medicine MS/PhD Program is a CAMPEP-accredited interdepartmental graduate program supported by the departments of molecular and medical pharmacology, radiation oncology, and radiological sciences. It offers training in four specialties: medical imaging, molecular and cellular oncology, molecular imaging, and therapeutic medical physics. Specialized facilities for training and research are available in the departmental laboratories, as well as in the Crump Institute for Molecular Imaging, Center for Medical Countermeasures against Radiation, and Center for Computer Vision and Imaging Biomarkers, among others. Highly specialized equipment includes state-of-the-art medical imaging modalities such as MRI, CT angiography, and PET/CT in both clinical and preclinical settings, as well as advanced radiotherapy treatment and planning facilities. The program prepares students for careers as independent researchers or professional medical physicists, and graduates pursue academic, industrial, governmental, and clinical careers, regardless of which specialty they pursue.

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

Graduate Degrees
The Physics and Biology in Medicine Program offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Physics and Biology in Medicine.

Physics and Biology in Medicine

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA.

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

Upper-Division Course
199. Directed Research in Biomedical Physics. (2 to 4) (Formerly numbered Biomedical Physics 199.) Tutorial, two hours. Limited to upper-division students under guidance of faculty mentor. May be repeated for credit. S/U or letter grading.

Graduate Courses
200A. 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 radiations and their interaction with matter, nuclear decay processes, nuclear reactions, and compartment models. Physical and chemical properties of radioactive solutions used in nuclear medicine. Basic principles of nuclear medicine imaging, SPECT, and PET. S/U or letter grading.

200B. Nuclear Medicine Instrumentation. (4) (Formerly numbered Biomedical Physics 200B.) Lecture, two hours; laboratory, three hours. Requisites: course 200A. Introduction to nuclear medicine instrumentation, including well ionization chambers, probe and well scintillation detectors, scintillation cameras, and single photon and positron emission computed tomography. S/U or letter grading.

201. Medical Radiation Accelerator Design. (4) (Formerly numbered Biomedical Physics 201.) Lecture, three hours. Requisite: course 216. Overview of physical principles involved in design of current par-

202A. Nuclear Medicine. (4) (Formerly numbered Biomedical Physics 202A.) Clinic, four hours. Requisite: course 200B. S/U or letter grading.


204. Introductory Radiation Biology. (4) (Formerly numbered Biomedical Physics 204.) Lecture, four hours. Effect of ionizing radiation on chemical and biological systems. S/U or letter grading.

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 enhancement procedures, X-ray protection. Laboratory experiments illustrate basic theory. S/U or letter grading.

206. Advanced Instrumentation. (4) (Formerly numbered Biomedical Physics 206.) Lecture, three hours; discussion, one hour. Requisite: course 205. Introduction to recent advances in digital diagnostic imaging systems, topics centered on instrumentation including digital subtraction angiography (DSA) methods of producing three-dimensional images. S/U or letter grading.

207. Monte Carlo Methods with Applications for Radiological Sciences. (4) (Formerly numbered Biomedical Physics 207.) 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 enhancement procedures, X-ray protection. Laboratory experiments illustrate basic theory. S/U or letter grading.

208A. Medical Physics Laboratory: Medical Imaging. (4) (Formerly numbered Biomedical Physics 208A.) Discussion, two hours; laboratory, four hours. Requisite: course 205. Hands-on experience performing acceptance testing and quality control checks of imaging equipment such as fluoroscopy, digital subtraction angiography, mammography, ultrasound, magnetic resonance imaging, computed tomography, and computed radiography. S/U or letter grading.

208B. Medical Physics Laboratory: Radiation Therapy. (4) (Formerly numbered Biomedical Physics 208B.) Discussion, two hours; laboratory, four hours. Requisite: course 203. Hands-on experience calibrating treatment planning and radiation therapy equipment. S/U or letter grading.

209. Signal and Image Processing for Biomedicine. (4) (Formerly numbered Biomedical Physics 209.) Lecture, three hours. Preparation: basic calculus or linear algebra and undergraduate probability. Mathematical and statistical foundations of basic concepts in biomedicine and experimental approaches in biomedicine. S/U or letter grading.

210. Computer Vision in Medical Imaging. (4) (Formerly numbered Biomedical Physics 210.) Lecture, three hours; discussion, one hour. Introduction to the field of computer vision and its applications in medical imaging. Topics include image processing, segmentation, feature extraction, and machine learning. S/U or letter grading.

211. Medical Ultrasound. (4) (Formerly numbered Biomedical Physics 211.) Lecture, 90 minutes; laboratory, two hours. Preparation: one calculus course. Production of real-time ultrasound images, transducer modeling and design, Doppler and color flow imaging, instrumentation, biohazards of ultrasound, ultrasound phantom design, and ultrasound tissue characterization techniques. Laboratory included. S/U or letter grading.

212. Biochemical Basis of Positron-Emission Tomography (PET). (4) (Formerly numbered Biomedical Physics 212.) Lecture, three hours; discussion, one hour. Introduction to the field of radiotracer kinetic modeling and application of radiotracers to noninvasively study metabolic processes via PET. Validation of kinetic models to derive quantitative information from PET. S/U or letter grading.

213. Quantitative Autoradiography. (4) (Formerly numbered Biomedical Physics 213.) Lecture, three hours; discussion, one hour. Application of quantitative autoradiography using positron-emission tomography (PET) to study metabolism in nonhuman and human cells. S/U or letter grading.

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. Discussion of aperture-based diagnosis and image quantization, as well as application of pattern classification techniques (neural networks and discriminant analysis). Examination of problems from several image processing modalities (CT, MRI, CR, and mammography). S/U or letter grading.

215. Breast Imaging Physics and Instrumentation. (4) (Formerly numbered Biomedical Physics 215.) Lecture, three hours; laboratory, two hours. Requisite: course 209. 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, mammography, X-ray equipment, 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 interactions of radiation and matter and introduction to fundamentals of radiation dosimetry. Overview of dosimetry instrumentation as well as radiation sources. S/U or letter grading.

217. Statistics and Data Analysis in Biomedical Physics. (2) (Formerly numbered Biomedical Physics 217.) Lecture, two hours; laboratory, one hour. Requisite: course 11A. Basic statistical concepts and their application to the analysis of experimental data. Techniques for analyzing biological data with emphasis on the role of computer software. S/U or letter grading.

218. Radiologic Functional Anatomy. (4) (Formerly numbered Biomedical Physics 218.) Lecture, three hours; discussion, one hour. Introduction to human anatomy, cell biology, and terminology as 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.) Lecture, three hours; discussion, one hour. Introduction to magnetic resonance imaging (MRI), physics, and image formation. Emphasis on hardware, Bloch equations, analytic expressions, image contrast mechanisms, spin and gradient echoes, Fourier transform imaging methods, structure of pulse sequences, and various scanning parameters. Introduction to advanced techniques in rapid imaging, quantitative imaging, and spectroscopy. Letter grading.

220A-220B. Laboratory Rotations in Biomedical Physics. (2–2) (Formerly numbered Biomedical Physics 220A-220B.) Laboratory, two hours. Laboratory project to provide students with introduction to field. One oral and one written presentation required. S/U or letter grading.

220C. Bioengineering. (4) (Formerly numbered Biomedical Physics 220C.) Lecture, three hours; discussion, one hour. Requisite: course 216. Basics of radiation safety as applied to medical applications. Introduction to all regulatory issues pertaining to medical uses of radioactivity. Letter grading.


223. Seminar: Radiation Biology. (4) (Formerly numbered Biomedical Physics 223.) Seminar, four hours. Exploration of physiologic and molecular mechanisms that impact on response of normal and malignant tissues to ionizing radiation, with particular emphasis on cellular and molecular changes when delivering treatment, and how such responses can be modified in a therapeutic setting. Understanding of rationale for integrating biologic information into process of treatment planning and delivery. S/U grading.

225. Contrast Mechanisms and Quantification in Magnetic Resonance Imaging. (4) (Formerly numbered Biomedical Physics 225.) Lectures, four hours. Requisite: course M219. Introduction to magnetic resonance contrast mechanisms and quantification techniques in magnetic resonance imaging. Topics include exogenous and endogenous contrast mechanisms, magnetic resonance spectroscopy, perfusion, diffusion, functional imaging; and metabolically sensitive imaging. S/U or letter grading.

226. Human Disease: Current and Future Role of Biomedical Physics. (4) (Formerly numbered Biomedical Physics 226.) Lecture, three hours; discussion, one hour. Present and future roles of biomedical physics in diagnosis and treatment of human disease, with focus on interdisciplinary contributions. Exploration of two diseases in depth with detailed description of roles of physics-based diagnostic imaging and therapeutic options for each disease. Description of current and future strategies and techniques that exploit interaction between diagnosis and therapy. Letter grading.
M229. Advanced Topics in Magnetic Resonance Imaging. (4) (Formerly numbered 229.) (Same as Bioengineering M229.) Lecture, four hours. Prerequisite: course M219. Designed for students interested in pursuing research related to development or translation of new imaging techniques (MI) or functional imaging in molecular imaging. Basic tools and understanding of recent MRI developments that have had high impact on field, involve novel pulse sequence design or image reconstruction algorithms, and in vivo imaging. Course prerequisites include exposure to general principles of MRI, in vivo imaging, and different approaches to image acquisition and processing. Lecture, four hours. Computed tomography is a three-dimensional imaging technique being widely used in radiology and is becoming active research area in biomedical engineering. It involves computed tomography (CT), various reconstruction algorithms, special characteristics of CT, physics in CT, and various biomedical applications. S/U or letter grading.

M230. Computed Tomography: Theory and Applications. (4) (Formerly numbered Biomedical Physics M230.) Lecture, four hours. Course provides theoretical and practical understanding of treatment planning techniques utilized in radiation therapy. Topics include clinical treatment planning work flow, general planning principles and strategies, and specific considerations for treatment delivery errors and advanced treatment techniques. Detailed discussion on dose calculation algorithms and inverse planning and optimization. Clinical treatment planning demonstration using commercial treatment planning systems used to provide practical understanding of clinical applications and implementation. S/U or letter grading.

M248. Introduction to Biological Imaging. (4) (Formerly numbered Biomedical Physics M248.) (Same as Biophysics M248.) Lecture, four hours. Prerequisites: courses 203, 216. Designed to provide theoretical and practical understanding of treatment planning techniques utilized in radiation therapy. Topics include clinical treatment planning work flow, general planning principles and strategies, and specific considerations for treatment delivery errors and advanced treatment techniques. Detailed discussion on dose calculation algorithms and inverse planning and optimization. Clinical treatment planning demonstration using commercial treatment planning systems used to provide practical understanding of clinical applications and implementation. S/U or letter grading.

M249. Seminar: Medical Imaging. (1) (Formerly numbered Biomedical Physics 249.) Seminar, one hour. Continuous registration required of students in medical imaging specialty. Topics of current interest in medical imaging, with lectures from department, other universities, and private industry. S/U or letter grading.

M285. Functional Neuroimaging: Techniques and Applications. (3) (Formerly numbered Biomedical Physics M285.) (Same as Bioengineering M284, Neuroscience M285, Psychiatry M285, and Psychology M278.) Lecture, three hours. In-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Strong focus on understanding techniques, how to design activation imaging paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiment. S/U or letter grading.

M286. Image Registration Techniques. (4) (Formerly numbered Biomedical Physics 286.) Lecture, four hours. Preparation: strong understanding of medical imaging background. Examination of state-of-art image registration methods that exist today. Mathematical descriptions of each class of different registration methods and two-dimensional/three-dimensional/four-dimensional implementation details. Programming of registration methods in MATLAB/C/C++/CUDA/JAVA interfaces so students learn all registration methods currently in investigations. Letter grading.

M424. Functional Magnetic Resonance Imaging Journal Club. (2) (Formerly numbered Biomedical Physics M424.) (Same as Psychiatry M424.) Discussion, 90 minutes. Limited to 10 students. Current topics in functional neuroimaging, with emphasis on novel applications, analysis, and acquisition methods. Presentation and critique of student papers. Overall emphasis on understanding techniques and avoiding artifacts. Programming example areas include tractography through diffusion tensor imaging, jittered event-related experimental designs, parallel receiver MRI imaging, integrated electrophysiological and imaging experiments on animals and model systems in other universities, and private industry. S/U or letter grading.

M495. Special Studies in Biomedical Physics. (4) (Formerly numbered Biomedical Physics 495.) Seminar, two hours; laboratory, four hours. Teaching assistance in graduate laboratory courses under supervision of faculty mentor. S/U grading.

M569. Research in Biomedical Physics. (4 to 12) (Formerly numbered Biomedical Physics 569.) Tutorial, to be arranged. Directed individual study or research. Only one 596 course may be applied toward MS degree requirements. May be repeated for credit. S/U or letter grading.

M596. Research for and Preparation of MS Thesis. (4) (Formerly numbered Biomedical Physics 596.) Tutorial, to be arranged. May not be applied toward MS degree requirements. May be repeated. S/U grading.

M597. Preparation for PhD Qualifying Examinations. (4) (Formerly numbered Biomedical Physics 597.) Tutorial, to be arranged. May not be applied toward MS degree requirements. May be repeated. S/U grading.

M598. Research for and Preparation of MS Thesis. (4 to 12) (Formerly numbered Biomedical Physics 598.) Tutorial, to be arranged. May not be applied toward MS degree requirements. May be repeated. S/U grading.


PHYSIOLOGICAL SCIENCE

See Integrative Biology and Physiology

PHYSIOLOGY

David Geffen School of Medicine

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Physiology

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Stephen C. Cannon, MD, PhD, Chair
Thomas J. O’Dell, PhD, Executive Vice Chair
Nancy L. Wayne, PhD, Vice Chair, Instruction

Scope and Objectives

Physiology is the science of the functional activities of the human body. This covers a wide range, including observations on humans and experiments on animals and model systems in order to understand principles. Physiology is the science most directly relevant to human medicine in all its specialties and to understanding all environmental factors affecting human life. It is also a pure science of great challenge because of the complexity of its problems and its extensive interaction with mathematical, physical, biochemical and engineering sciences, as well as with other branches of biology.

Within the prescribed curriculum, students may specialize in cellular and molecular physiology, theoretical and mathematical physiology, and organ systems and integrative phenomena, including neuroscience and behavioral physiology.

The Department of Physiology offers post-doctoral training in research and welcomes students interested in articulated MD/PhD programs.

Applicants interested in pursuing graduate study may apply directly to the interdepartmental Molecular, Cellular, and Integrative Physiology PhD program.

Physiology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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

Upper-Division Courses

199. Directed Research in Physiology. (2 to 4) Tutorial, to be arranged. Limited to 10 students. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.
**Graduate Courses**

M210. **Molecular and Cellular Mechanisms of Neural Integration.** (5) (Same as Neuroscience M230 and Physiological Science M210.) Lecture, four hours; discussion, one hour. Requisite: Neuroscience M202. Introduction to mechanisms of synaptic processing. Selected problems of current interest, including regulation and modulation of transmitter release, molecular biology and physiology of receptors, cellular basis of integration in sensory perception and learning, neural nets and oscillators, and molecular events in development and sexual differentiation. Letter grading.

220. **Methods in Cell Physiology.** (6) Linear circuit analysis, including admittance, transfer admittance, transfer function, and filters using transform methods. Application of these concepts to electronic analog circuits in lectures and laboratory, with emphasis on operational amplifiers. Applications to electrophysiology include microelectrode amplifiers, voltage clamp and patch clamp techniques, with circuit analysis and noise considerations. Digital electronics cover logic gates, sequential circuits, and A/D and D/A conversion, with introduction to sampling theory.

221. **Cell Physiology: Excitability.** (6) Requisite: course 220. In-depth coverage of general properties of excitable cells, linear cable properties, nonlinear conductance and single channel properties of excitable cells, linear cable properties, nonlinear 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.

598. **Thesis Research for MS Candidates.** (2 to 12) Tutorial, to be arranged. S/U grading.

599. **Dissertation Research for PhD Candidates.** (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. (5) 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, public policy, political institutions, and public administration. P/NP or letter grading.

6R. Introduction to Data Analysis—Research Version. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 50R. Not open for credit to students with credit for course 6. Introduction to collection and analysis of political data, with emphasis on application of statistical reasoning to study of relationships among political variables. Use of computer as aid in analyzing data from comparative politics, P/NP or letter grading.

10. Introduction to Political Theory. (5) Lecture, three hours; discussion, one hour. Exposition and analysis of selected political theorists and concepts from Plato to the present. P/NP or letter grading.

19. 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 or letter grading.

20. World Politics. (5) Lecture, three hours; discussion, one hour. Readings of all students concentrating in Field II. Introduction to problems of world politics. P/NP or letter grading.

30. Politics and Strategy. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Introduction to study of strategic interaction in political applications. Use of game theory and other formal modeling strategies to understand politics. P/NP or letter grading.

40. Introduction to American Politics. (5) Lecture, three hours; discussion, one hour. Basic institutions and processes of democratic politics. Treatment of themes such as constitutionalism, representation, participation, and leadership coupled with particular emphasis on the American case. P/NP or letter grading.

50. Introduction to Comparative Politics. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 50R. Comparative study of constitutional principles, government institutions, and political processes in selected countries. P/NP or letter grading.

50R. Introduction to Comparative Politics—Research Version. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 6R. Not open for credit to students with credit for course 50. Comparative study of constitutional principles, government 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. (5) Lecture, three or four hours; discussion, one hour (when scheduled). To study question of can’t we all just get along, students play games of cooperation, coordination, collaboration, and competition and examine whether and how diversity, disagreement, and democracy influence human 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 to inform and be informed by computer simulations. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Seminar, three hours. Limited to 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 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

M105. Economic Models of Public Choice. (4) (Same as Economics M135.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparing students for lower-division preparation in algebra, calculus. 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/seniors. Democracy was invented in ancient Greece as political form grounded on equality before law, citizenship, and freedom. It came into existence as struggle by demos, people, aware of its excellence and proud of its power, kratos. It became only regime capable of including all members of community while disregarding wealth, status, and 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 processes of 20th-century democratic societies. 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-
nions/seniors. Intense and individualized examination of politically significant films with respect to central issues in political theory such as power and truth in light of relevant political theorists. P/NP or letter grading.

114A. American Political Thought I, 1620 to 1865. (Formerly numbered 114.) 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.

114B. American Political Thought II, 1865 to Present. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Course 114A is not requisite to 114B. Designed for juniors/seniors. Exposition and critical analysis of American political thinkers from Reconstruction to present. 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 themes of political life over time, and search for works for thinking about citizenship in era of markets and globalization. P/NP or letter grading.

115D. Diversity, Disagreement, and Democracy: Can't We All Just Get Along? (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Can't we all just get along? Study of diversity, disagreement, and democracy. Diversity covers individual differences, cultural differences, and human universals; groupism, factionalism, and identity politics; multiculturalism and one-world ethics. Disagreement includes moral, ideological, and partisan disagreement; resolvable and irresolvable 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 irreolvable 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, sociability, science, republican self-fashioning) and promotion of civil 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 their relevance for world that many describe as posthumanist? What form of civic culture is most appropriate for North American citizens in 21st century? P/NP or letter grading.

116A. Marxism. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical analysis of origins, nature, and development of Marxist political theory. P/NP or letter grading.

116B. Continental Political Thought. (4) Lecture, three or four hours; discussion, one hour (when scheduled). 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.

117. Jurisprudence. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of law and legal systems; consideration of fundamental legal concepts; contributions and influence of modern schools of legal philosophy in relation to law and government. Letter grading.

118. Laws of War and Peace from Covenant of America to Declaration of Human Rights (1945). (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Designed for juniors/seniors. Examination of theories of international law, policy 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. Recommended requisite: course 10. Designed for juniors/seniors. Intensive examination of one or more special problems appropriate for role of student 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 represented political thought of ancient Greek and Roman thinkers. Topics include effects of intellectual and social changes of modem reception of classical antiquity. P/NP or letter grading.

Field II: International Relations

120A. Foreign Relations of U.S. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of factors and forces entering into formation and implementation of American foreign policy, with special emphasis on contemporary problems. P/NP or letter grading.

120B. World Politics and U.S. Foreign Policy after September 11. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Leading scholars as well as live lectures and discussion on complex problems such as terrorism, nuclear proliferation, and Arab-Israeli conflict. P/NP or letter grading.

121A. Studies in Formation 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). Requisite: course 20. Designed for juniors/seniors. Study of problems of international system seen as community capable of cooperation and development. P/NP or letter grading.

122B. Global Environment and World Politics. (4) (Same as Environment M116.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 20. 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.

122B. Global Environment and World Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 20. 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.

123A. International Law. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Study of law and practice in conduct of international relations. P/NP or letter grading.

123B. International Organizations. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Overview of both theory and functioning of international organizations in promoting international cooperation. Required readings include both statistical and formal models. P/NP or letter grading.

124A. International Political Economy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. 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/seniors. Interaction of international and domestic factors in political and economic evolution of Latin America. P/NP or letter grading.

125A. Arms Control and International Security. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Arms control and international security in nuclear age. Nuclear arms race; relationship between deterrence doctrines and nuclear war; roles of technology and ideology; nuclear proliferation; outer space. P/NP or letter grading.

126. Peace and War. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Theory and research on causes of war and conditions of peace.

127A. Atlantic Area in World Politics: Western Europe. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. External relations of United Kingdom, West Germany, France, Italy, and other European 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). 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). Requisite: course 20 or 137A. Designed for juniors/seniors. Analysis of roles of diplomacy, military, and political factors in history of diplomatic institutions, advantages of public and private diplomacy, bilateral and multilateral settings, and theory and practice of deterrence and coercion. Use of game theoretic reasoning and historical analysis. Prior exposure to both useful but not required. P/NP or letter grading.

132A-M132B. International Relations of Middle East. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. 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.

134. Foreign Policy Decision Making and Tools of Statecraft. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Study of the policy process and major institutional and group decision-making. Impact of strategic interaction and situational factors on 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). Requisite: 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). Designed for juniors/seniors. Examination of various theoretical approaches to international relations. P/NP or letter grading.

138A. International Politics, 1815 to 1914. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Classic 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 period. P/NP or letter grading.
139. Special Studies in International Relations. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: 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 in 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 138. 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 court decisions.

M141A–M141E. 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. Examination of political, social, and economic factors influencing political and social attitudes, political behavior, and development of political and social skills. Focus on the implications of political socialization 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 public opinion in elections, relationship of public 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 138 or 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 for isolating points of contact, conflict, and pressure for action. Not open to students who have taken 141B.

141D. Elections, Media, and Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 138 or 40. Designed for juniors/seniors. Analysis of elections and media, including game-theoretic analysis and 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. Not open to students who have taken 141B.

142A. Political Parties and Interest Groups. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 138 or 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 and strategies, and the 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 public life cycle is shaped by (1) economic development and by the activities of various actors: 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 political, social, economic, and cultural factors influence metropolitan cities and suburbs. Analysis of metropolitan cities and suburban areas. Study of some major issues in metropolitan governance through classic and contemporary readings on political power, political economy of cities, and racial/ethnic segregation, as well as political incorporation and racial/ethnic coalitions. P/NP or letter grading.

143C. Politics of American Suburbanization. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of how public issue life cycle is shaped by (1) economic development and by the activities of various actors: 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.

143D. Understanding Public Issue Life Cycle. (4) 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 public life cycle is shaped by (1) economic development and by the activities of various actors: 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.

143E. Political Psychology. (4) (Same as Psychology M138.) 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 development of basic concepts of law which were received from that system in U.S. and remain relevant today. 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. Constitutional questions concerning separation of powers, federalism, and relationship between government and property. P/NP or letter grading.

145B. Constitutional Law—Civil Liberties. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Constitutional rights of persons suspected, accused, and convicted of crimes, with attention to how protections have changed through history. P/NP or letter grading.

145C. Constitutional Law—Civil Liberties. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Protection of civil and political rights and liberties under constitution. P/NP or letter grading.

145D. Judicial Oversight of Bureaucracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Legal controls of administration action. Substantive and procedural limits on administrative discretion imposed by legislation, executive and judicial agencies, and sources of legal powers of administrative bodies within these limits. P/NP or letter grading.

146A. Constitutional Law—Rights of Accused. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Constitutional rights of persons suspected, accused, and convicted of crimes, with attention to how protections have changed through history. P/NP or letter grading.

146B-146D. Organization Theory, Public Policy, and Administration. (4–4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended preparation: courses 10, 40. Designed for juniors/seniors. P/NP or letter grading.

146E. Bureaucracy and Public Management. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: familiarity with American government. Requisite: course 40. Designed for juniors/seniors. Nature of bureaucracy in modern government, with emphasis on U.S.; explanation of why government agencies behave as they do. Focus on real and imagined problems with bureaucratic rule; evaluation of commonly proposed solutions for these problems. Examples from schools, armies, welfare bureaus, regulatory agencies, and intelligence services, among others. P/NP or letter grading.

146D. Politics of American Suburbanization. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of how public issue life cycle is shaped by (1) economic development and by the activities of various actors: 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.

146E. National Policy Development and Implementation. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Introduction of complex process of policy development and implementation in U.S., including roles of federal, state, and local agencies as well as private organizations. Subsections offered on particular policy areas, with topics announced in preceding term. P/NP or letter grading.

147A-147B-147C. American Political Development. (4–4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. P/NP or letter grading.

147A. Overview. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. P/NP or letter grading.

147B. Period Inquiry. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of one period in American political history. Critical features fostering stability and change. Discussion of contributions to structure and content of contemporary American politics. Possible periods: Founding, Reconstruction, Progressive Era, New Deal, and Cold War. Consult Schedule of Classes for topics to be offered in specific term. P/NP or letter grading.

147C. Transformation and Development. (3–3–3) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. P/NP or letter grading.

147D. Special Topics in American Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Two courses in Field II. Requisite: course 40. Designed for juniors/seniors. P/NP or letter grading.

Field IV: Comparative Politics

150. Political Violence. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. 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). Requisite: course 40. Designed for juniors/seniors. P/NP or letter grading.
151A. Government and Politics of Africa. (4–4) 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. Comparative study of government and politics in contemporary Africa, with special attention to state/society relations, interaction of politics and economic development, political institutions, and conflict and conflict resolution. Letter grading.

152. Comparative Government and Politics of Western Europe: West European Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. The interaction of economic and political factors in African development, with special attention to political basis of inappropriate economic policy during early post-independence period and change toward a more appropriate economic strategy in recent times. Letter grading.

151C. Special Topics in African Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consent of instructor required. Selection of topics announced in preceding term. May be repeated for credit with change in topics. Letter grading.

153A. Comparative Government and Politics of 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 practice. P/N or letter grading. 154A. States of Middle America. Enrolled requisite: course 50 or 50R. 154B. States of South America.

156A. Government and Politics of Post-Communist States: Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Special attention to political attention to legacy of Soviet Union. P/N or letter grading.

157. Government and Politics in the Middle East. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Current study of institutions and political development in Russia, with special attention to the Soviet legacy. P/N or letter grading.

158. Southeast Asian Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of government in the Arab States, Turkey, Israel, and Iran. P/N or letter grading.

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 political problems. 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 during era of European colonialism and resulting shifts in identity during social change. Change in political parties in Greece and transformation of party system in Singapore are examples of how different countries become democratic at different times, and why some remain authoritarian. P/N or letter grading.

163B. 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 resulting shifts in identity during social change. Change in political parties in Greece and transformation of party system in Singapore are examples of how different countries become democratic at different times, and why some remain authoritarian. P/N or letter grading.

164A. Roots of Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of development of democracy around world from its beginnings in ancient Greece to present day. Techniques of comparative politics used to argue about why different countries become democratic at different times, and why some remain authoritarian. P/N or letter grading.

164B. Fascism and Right-Wing Extremism: Historically and Present Day. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical roots of Fascism in Germany, Italy, Japan, and Eastern Europe; its social support and ideological appeal. Focus on Germany, including Nazi economic policy (Tooze, *Wages of Destruction*). Do today's xenophobic movements in Europe and U.S. resemble earlier movements in ideology and social basis? P/N or letter grading.

165. Islam and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Religious and spiritual foundations of Islamic legal and political institutions: legitimacy of historical and contemporary Islamic religious, movements, and ideologies; political strategies of Islamic activism. P/N or letter grading.

166. Comparative Constitutional Design. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparison of major institutional structures such as presidencialism versus parliamentary, unicameralism versus bicameralism, proportional versus majoritarian systems, federal versus unitary systems, plurality versus proportional electoral systems, etc. Method of analysis is rational choice (political actors are assumed to optimize their results given institutional constraints and action of other actors). Result is that institutions affect political outcomes in systematic ways. P/N or letter grading.

M167C. Political Economy of Development. (4) Same as International Development Studies M120.) Lecture, three or four hours; discussion, one hour (when scheduled). Political economy approach to problems of growth and development: why some countries are rich and others are poor and why, among others, are some agents have been able to achieve rapid rates of economic growth and others have not. Explanation and review of logic behind most important arguments that have been advanced to account for differences across countries in rates and levels of economic development. May be applied toward either Field IV or V. Letter grading.

167D. Political Institutions and Economic Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one statistics course. Designed for juniors/seniors. Empirical analysis of question of why some countries are rich and others are poor, with special attention to evidence about how governments and political institutions affect economic development. May be applied toward either Field IV or V. Letter grading.

168. Comparative Political Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparison of one or more series of social and political movements used to evaluate major arguments about how different ways of counting and social and political movements convince people to participate? Consideration of various theoretical perspectives, including game-theoretic, social network, structural, and identity approaches, illustrated by case studies. P/N or letter grading.

171A. Applied Formal Models of Collective Action and Social Movements. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. How do social and political movements convince people to participate? Consideration of various theoretical perspectives, including game-theoretic, social network, structural, and identity approaches, illustrated by case studies. P/N or letter grading.

171B. Collective Choice and Majority Rule. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. How do different ways of counting and social and political movements convince people to participate? Consideration of various theoretical perspectives, including game-theoretic, social network, structural, and identity approaches, illustrated by case studies. P/N or letter grading.

171C. Legislative Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. How do politicians get policy changes passed by legislatures, city councils, and other voting bodies? Applications of game-theoretic reasoning to normative strategies and tactics in legislative settings. P/N or letter grading.

171D. Negotiation. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Study of negotiation and bargaining in different contexts, Experimental exercises with emphasis on various aspects of negotiation, including communication, honesty, and role of agents. P/N or letter grading.

172. Strategy and Conflict. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced requisite: course 30. Designed for juniors/seniors. Intermediate topics applied to political problems, with special attention to strategic consequences of incomplete information and information asymmetries. P/N or letter grading.

179. Special Topics in Methods and Models. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Intensive examination of one or more
special problems related to methods and models in political science. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

Field VI: Race and Ethnic Politics

M180A. African American Political Thought. (4) (Same as African American Studies M114C and Labor and Workplace Studies M114C.) Lecture, three or four hours; discussion (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. Preparation: course 40. Prerequisite: course 40. P/NP or letter grading.

M181A. 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 the 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; neo-conservative attitudes; Development, Relief, and Education for Alien Minoros (DREAM) Act and subsequent DREAMer movement; and response by Latinos today, with discussion of role of Latinos in recent presidential elections. P/NP or letter grading.

M182. Ethnic Politics: African American Politics. (4) (Same as African American Studies M114B.) Lecture. Three or four hours; discussion, one hour (when scheduled). Development of the identity of African Americans in the U.S. political system. Topics include historical analysis of the African American community's political behavior; the role of African Americans in the political system; and the impact of African American politics on the political system. 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). Examination of the history and identity of African Americans and African-derived communities in the Caribbean and Latin America. Includes travel to Latin America, with emphasis on comparisons to other Latin American and Caribbean countries. Includes examination of the roles of African Americans in Latin America and the impact of their experiences on the political and cultural life of Latin America. 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). Examination of the political role of African Americans in Latin America, with emphasis on comparisons to U.S. and Latin American cultures. Covers populations of African and African-derived communities in Latin America, with emphasis on the role of African Americans in Latin American politics. 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. Discussion of race, ethnicity, and politics in political science. Section 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

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Preparation: lecture course. P/NP or letter grading.

Special Studies

190. Research Colloquia in Political Science. (1) Seminar, one hour. Designed to bring together students writing departmental honors theses in political science with faculty members to discuss their thesis work in progress. Led by one supervising faculty member. P/NP or letter grading.

190H. Honors Research Colloquia in Political Science. (1) Seminar, one hour. Designed to bring together students writing departmental honors theses in political science with faculty members to discuss their thesis work in progress. Led by one supervising faculty member. P/NP or letter grading.

191A-191F. Variable Topics Research Seminars for Majors. (4) Each. Topics vary by term. Preparation: one or more research courses on research topics in political science. P/NP or letter grading.

194. Research Group Seminars: Political Science. (2) 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. CAPPPP Washington, DC, Research Seminars. (4) (Same as History M194DC and Sociology M194DC.) Seminar, three hours. Limited to CAPPPP Program students. 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 variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

195CE. Community and Corporate Internships in Political Science. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend biweekly meetings with student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator coordinate internship(s) and evaluate criteria for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

195DC. CAPPPP Washington, DC, Internships. (4) (Same as History M195DC and Sociology M195DC.) Tutorial, four hours. Limited to junior/senior CAPPPP Program students. Internships in Washington, DC, through UC 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 or letter grading.

198. Honors Research in Political Science. (1 to 4) Tutorial, two hours. Preparation: course 198H. 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.

199D. Directed Research in Political Science. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research project guided by a faculty sponsor under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. 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.

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. Basics 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. Preparation: 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, testing, and estimating hypotheses, 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 statistics, discrete and continuous random variables. Clarification of conditions under which estimates made using non-experimental data can be given causal interpretation. 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. S/U or letter grading.

200D. Maximum Likelihood for Social Science. (4) Seminar, three hours; field work, eight hours. Introduction to theory and practice of maximum likelihood analysis in political science, including discrete choice models, latent variable models, and duration models. Topics include traditional mathematical derivations of various estimators and their properties with Monte Carlo simulations and discussion of application of parameters for letter grading.

200E. Experimental Design for Social Science. (4) Seminar, three hours; field work, eight hours. Preparation: familiarity with statistics of causal inference at level of course 200D. Covers design, analysis, and implementation of experimental research in social sciences. Emphasis on field experiments, though most issues that are covered are relevant for other modes including laboratory, laboratory-in-the-field, and survey experiments. S/U or letter grading.

200F. Advanced Statistical Topics for Social Science. (4) Seminar, three hours; field work, eight hours, Preparation: courses 200A through 200E. Topics vary according to student interest. May be repeated for credit. S/U or letter grading.

200X. Data Analysis Workshop. (4) Seminar, three hours. Enrolled requisite: course 200C. Not open for credit to students with credit for course 200Y. Practice in applying statistical techniques to political science data. S/U or letter grading.

200Y-200Z. Data Analysis Workshops. (2–6) Seminar, two hours. Enrolled requisite: course 200C. Course 200Y is enforced requisite to 200Z. Not open for credit to students with credit for course 200X. Practice in applying statistical techniques to political science data. S/U or letter grading.

201A. Introduction to Formal Political Analysis. (4) Seminar, three hours. Survey of formal political theory to enhance literacy and provide analytical tools without presupposing mathematical background. Model building, collective goods, unanimity and the social contract, voting rules, paradoxes and impossibility theorems, stability, individual liberty and decentralization, strategic manipulation, representation, vote trading.

201B. Theory of Collective Choice. (4) Seminar, three hours. Preparation: modified preparation for political science students: course 201A. Open to any student of politics, economics, philosophy, or mathematics with ability for deductive reasoning. Introduction to abstract, deductive study of voting systems and other collective-choice processes. Axiomatic method applied to politics and political economy, concept of rationality, and agenda control, choice-set or solution concepts.


203A. Economic Theory and Methods for Political Science I. (4) 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 decision, equilibria, Nash solutions, welfare economics, bargaining, and economic growth as time permits.

203B. Economic Theory and Methods for Political Science II. (4) Discussion, three hours. Requisite: course 203A. Continuing survey of microeconomic techniques and formal political science, with focus on market failures and on modeling individual choice in nonmarket situations. Specific topics include externality, subsidies, public goods, public choice, and electoral institutions. Students becoming familiar with the formal apparatus of economic analysis. S/U or letter grading.

204A. Game Theory in Politics I. (4) Seminar, three hours. Survey of game theory, with emphasis on utilizing mathematical models to understand political and economic phenomena. Applications concern political participation, public goods, legislatures, industrial regulation, bureaucracies, interest groups, and party competition. Designed to help students 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; field work, eight hours. Requisite: course 204A. Intermediate game theory topics include games of incomplete information, cheap talk games, and bargaining theory. Applications concern political participation, public goods, legislatures, bureaucracies, conflict, and competition. Designed to help students use game theory in their research. S/U or letter grading.

204C. Game Theory in Politics III. (4) Seminar, three hours; field work, eight hours. Requisites: courses 204A, 204B. Advanced game theory course, with emphasis on new and/or advanced techniques. Topics include timing games, stochastic games, and mechanism design. Applications concern bureaucratic conflict mediation and formal transitions. Designed to help students use advanced game theory in their research. S/U or letter grading.

205B. 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.

205D. Multivariate Analysis with Latent Variables. (4) (Same as Psychology M257 and Statistics M242.) Lecture, three hours. Introduction to models and statistical techniques for analyzing data that are generated by unmeasured latent variables, including latent variable analogues of traditional methods in multivariate analysis. Causal modeling: theory testing via analysis of moment structures. Measurement models such as confirmatory, higher-order, and structured-means factor analytic models. Structural equation models, including path and simultaneous equation models. Parameter estimation, hypothesis testing, and other statistical issues. Computer implementation, Applications. S/U or letter grading.

205E. Bayesian Econometrics. (4) (Same as Economics M223.) Lecture, three hours. Requisites: courses 205A, 231B. 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.

209. Special Topics in Formal Theory and Quantitative Methods. (4) Seminar, three hours; S/U or letter grading.

Political Theory

210A-210B. Political Theory Field Seminar 1, 2. [4–4] Lecture, three hours; field work, eight hours. S/U or letter grading. 210A. Exploration of major texts and issues in political theory. 210B. Further exploration of major texts and issues in political theory.


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 substantive concerns 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 their having been proposed 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; S/U or letter grading. Students gain familiarity with major texts and issues in political theory, with particular attention to their philosophical system, their relations to contemporary political and intellectual currents, and importance of studies for present-day political analysis. 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 is a plan, 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 domestic politics levels. Application to selected cases in American foreign policy.


227. Foreign Policy Process. (4) Seminar, three hours; discussion, 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.
230. Contending Perspectives on International Political Economy. (4) Seminar, three hours. Survey of various theoretical approaches to international political economy.

231. International Political Economy I. (4) Seminar, three hours. Seminar. Three hours. Interaction between, international trade and investment and domestic political economies of both industrialized and industrializing societies.

232. International Political Economy II. (4) Seminar, three hours. Designed to develop PhD students' skills in setting up and solving simple institutional design, political economy macro, signaling, and participation models, as well as two-level game models of domestic politics and international 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 prerequisite to 234B, which is prerequisite 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. Letter or S/U grading.

Comparative Politics

240A–240B. Seminars: Comparative Politics. (4–4) Seminar, three hours. Course 240A is not prerequisite 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, three hours; discussion, one hour (when scheduled). Examination of domestic social, political, bureaucratic, and organizational sources of Russian foreign and strategic policy. S/U or letter grading.


251. Political Economy of Economic Reform. (4) Discussion, three hours. Some familiarity with economics helpful. Principal political and economic arguments for economic reform and consideration of political issues that arise from this process. Letter grading.

252. Parties and Party Systems. (4) Seminar, three hours; discussion, one hour (when scheduled). Theories and practices of political parties, party systems, and elections in comparative perspective.

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


260B. Survey Course in American Political Institutions. (4) Discussion, three hours. S/U or letter grading.

M261A. Proséminar: 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 political phenomena, research and advertising as determinants of election outcomes, adversarial versus deferential journalism, and analyses of media bias.

M261D. Seminar: Political Psychology. (4) (Same as Psychology M228B) Discussion, three hours. 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.

M261E. Critical Problems in Political Psychology. (4) (Same as Psychology M228C) Discussion, three hours. S/U or letter grading.

262. Political Parties. (4) Seminar, three hours. Critical examination of literature on party systems and organization. Special attention to political functions, electoral campaigns, and party cadres. S/U or letter grading.


265. Politics and Economy. (4) Discussion, three hours. Analysis of theoretical and practical relationships between economic organization and government institutions, Development and political implications of market system, banking and finance, corporate enterprise, and organized labor. 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.


M268B. 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 methods appropriate to study of representative institutions, with special emphasis on assumptions, concepts, methods, and theoretical implications associated with each approach. S/U or letter grading.

271. Executive Politics and Presidency. (4) Seminar, three hours. Analysis of executive organization and leadership, with emphasis on American Presidency. Special attention to organization and personality and relationship between executive and other institutions and groups. S/U or letter grading.

273. The Urban Political Development. (4) Discussion, three hours. National political institutions in historical perspective, theories of state building, state-society relations, political culture. S/U or letter grading.


Race, Ethnicity, and Politics

280A. Race and Ethnic Politics Field Seminar 1. (4) Seminar in field work, eight hours. Topics, methods, and development of paradigms in study of race and ethnic politics. S/U or letter grading.

280B. Research Methods in Race-Ethnicity Politics. (4) Seminar, three hours; field work, eight hours. Second course in race-ethnicity politics field seminar sequence. Review, dissection, discussion, and debate of different research methods that are used in race-ethnicity politics scholarship and advantages and disadvantages of different approaches and methodologies. S/U or letter grading.

M287A-M287B. Immigration, Racial Change, and Education in 21st-Century Metropolis. (4-4) (Same as Education M289A-M289B, Public Policy M289A-M289B.) 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. In our society by mid-century, creating democracy with no racial or ethnic majority. How this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, brought about by globalization 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 (M287A) and letter (M287B) grading.

Special Studies

290. Modern Political Economy. (4) Discussion, three hours. Discussion of implications for understanding politics of thinking of politicians, bureaucrats, scholars, consumers, 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). Examination of current research on race, ethnicity, and politics. S/U or letter 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 to S/U or letter grading.

PSYCHIATRY AND BIOBEHAVIORAL SCIENCES

David Geffen School of Medicine

37-356 Semel Institute
Box 951759
Los Angeles, CA 90095-1759

Psychiatry and Biobehavioral Sciences 310-206-5110

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Barry H. Guze, MD, Vice Chair
Alex J. Kopolowicz, MD, Vice Chair
Ira M. Lesser, MD, Vice Chair
Stephen R. Marder, MD, Vice Chair
James T. McCracken, MD, Vice Chair
Thomas B. Strouse, MD, Vice Chair
Andrew J. Fulgini, PhD, Associate Chair, Academic Affairs
Margaret L. Stuber, MD, Associate Chair, Medical Student Education

Professors
Donna Ames, MD, in Residence
Anne M. Andrews, PhD, in Residence
Joan R. Asarnow, PhD, in Residence
Robert F. Asarnow, PhD, in Residence (Della Martin Professor of Psychiatry)
Michele A. Basso, PhD, in Residence
Carrie E. Beakley, PhD, in Residence (Joanne and George Miller and Family Endowed Professor)
Thomas R. Belin, PhD
Robert M. Bilder, PhD, in Residence (Michael E. Tennentbaum Family Endowed Professor of Creativity Research)
Gene D. Block, PhD, Chancellor
Sally M. Blowey, PhD, in Residence
Susan Y. Bookheimer, PhD, in Residence (Joaoquin M. Fuster Professor of Cognitive Neuroscience)
Philipe I. Bourgeois, PhD, in Residence

Julienne E. Bowes, PhD (George F. Solomon Professor of Psychobiology)
Joel T. Braslow, MD, PhD, in Residence (Frances M. O’Malley Administrative Professor of Neuroscience History)
John O. Books, PhD, in Residence
Rita M. Cantor, PhD, in Residence
Bruce F. Chorpita, PhD
Mark S. Cohen, PhD, in Residence
Christopher S. Correll, PhD, in Residence
Ian A. Cook, MD, in Residence
Giovanni Coppola, MD, in Residence (Eleanor I. Leslie Professor of Innovative Brain Research)
Michelle G. Craske, PhD
Mirella Dapretto, PhD, in Residence
Christine A. Dunkel Schetter, PhD
José Esteve Engel, MD, PhD (Jonathan Simay Professor of Epilepsy)
Christopher J. Evans, PhD, in Residence (Stefan Hatsos Endowed Professor of Psychiatry and Biobehavioral Sciences)
Michael S. Fanselow, PhD (Stagiin Family Professor of Psychology)
David J. Faraboe, PhD, in Residence
Kym F. Faulk, PhD, in Residence
Jamie D. Feusner, MD, in Residence
Jonathan F. Flint, MD, in Residence
Nelson B. Freimer, MD, in Residence (Maggie G. Gilbert Endowed Professor of Bipolar Disorders)
Itzhak Fried, MD, PhD, in Residence
Andrew J. Fulgini, PhD, in Residence
Daniel H. Geschwind, MD, PhD, in Residence (Gordon and Virginia MacDonald Distinguished Professor of Human Genetics)
Michael F. Green, PhD, in Residence
Charles H. Hinkin, PhD, in Residence
Marco Iacoboni, MD, PhD, in Residence
Michael R. Irwin, MD, in Residence (Norman Cousins Endowed Professor of Psychoneuroimmunology)
Scott P. Johnson, PhD
Connie L. Kasari, PhD
Sheryl H. Katoaka-Endo, MD, MSHS, in Residence (Dena Bat-Yaacov Endowed Professor of Childhood Psychiatry and Biobehavioral Sciences)
Alex J. Kopolowicz, MD, in Residence
Harley L. Kornblum, MD, PhD, in Residence
David E. Krantz, MD, PhD, in Residence
Helen Lavretsky, MD, in Residence
Ira M. Lesser, MD
Patricia E. Lester, MD, in Residence (Jane and Marc Nathanson Endowed Professor)
Andrew F. Leuchter, MD
Michael S. Levine, PhD, in Residence
Jennifer G. Levitt, MD, in Residence
Li Li, PhD, in Residence
Matthew D. Lieberman, PhD
Gerald S. Lipshutz, MD, in Residence
Edythe D. London, PhD, in Residence (Thomas P. and Katherine K. Pike Professor of Addictive Studies)
Sandra K. Loo, PhD, in Residence
Nigel T. Maitland, PhD, in Residence
Stephen R. Marder, MD, in Residence (Dr. Daniel X. Freedman Administrative Professor of Academic Psychiatry)
Kelsey G. Martin, MD, PhD (Gerald S. Levey, MD, Endowed Professor)
Gary W. Mathern, MD, in Residence (Dr. Alfonso O. Davies Endowed Professor in honor of Paul Crandall, MD, for Epilepsy Research)
Emeran Mayer, MD
James T. McCracken, MD (Joseph Campbell Professor of Child Psychiatry)
Mario F. Mendez, MD, in Residence
David J. Miklowitz, PhD, in Residence
Norweeta G. Milburn, MD, in Residence
Gregory A. Miller, PhD
Jeanne Miranda, PhD, in Residence
Stanley F. Nelson, MD, in Residence
Keith H. Nuechterlein, PhD, in Residence
Roel A. Ophoff, PhD, in Residence
Christina G.S. Palmer, PhD, in Residence
John C. Piacentini, PhD
Gina R. Poe, PhD
Robert S. Pyroos, MD, in Residence
Lara A. Ray, PhD
Mary Jane Rotheram-Borus, PhD, in Residence
Scope and Objectives

The Department of Psychiatry and Biobehavioral Sciences offers interdisciplinary courses related to the mental health professions of the biobehavioral sciences in addition to its programs for psychiatry interns and residents for and medical students.

Enrollment in department courses is limited to registered UCLA students, students registered in programs officially affiliated with UCLA, and students enrolled concurrently through UCLA Extension. Students who meet these requirements, but who are not affiliated with a departmental training program, must also meet required course requisites determined by specific educational programs.

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.

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, loving-kindness, 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 mind-body 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.

180. 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.

181. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181, Neuroscience M130, Physiological Science M122, and Psychology M121, M122.) Lecture, three hours. Requisite: Neuroscience M101A or (Molecular, Cell, and Developmental Biology M175A or Physiological Science M140A or Psychology M140A or Physiological Science M111A or Psychology 115, Understanding 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 enhance it, 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 habits onto intermediate 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. As signed reading and tangible evidence of mastery of subject matter required. May be taken for letter grade only. May be repeated for credit. Individual contract required. Additional information and contract forms are available in Office of Education, 38–216 Sem. May be repeated for credit. 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 for Health Psychology journal with consideration of interface between behavioral science, health, and medicine. Reading and discussion of submissions and advising of editor on suitability for full publication. S/U grading.


M230. Communication of Science. (2) Same as Biomatics 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. Clinical Research Methods (4) Same as Biostatics M235.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 200C, 200B, or equivalent. Philosophical foundations, logical paradoxes, decision analysis, selection bias, confounding, ecological paradox, historical development, potential outcomes, Rubin causal model, propensity scores, competing perspectives on path analysis and graphical/structural causal models. Experiments with randomness, principal stratification, decision making when causality is disputed, role of ethics in decision making. S/U or letter grading.

M234. Affective Disorders. (2 or 4) Same as Psychology M277.) Lecture, two hours; laboratory, three and one half hours. Discussion of current laws dealing with vulnerable populations (e.g., children, developmentally disabled people, elderly people); philosophical, ethical, legal, political issues, and how to resolve them. Use of videotapes and discussion of cases.

M241. Seminar in Clinical Psychopathology. (1) Lecture, one hour; laboratory, seven hours. Supervised experience in classroom working with exceptional children in conducting systematic observation and formal assessments, and developing and carrying out individualized educational and behavioral programs. Theoretical and practical background furnished through one-hour weekly lecture. S/U or letter grading.


M285. Functional Neuroimaging: 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, experimental and results obtained thus far in human systems. Strong focus on understanding technologies, how to design activation imaging paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiment. S/U or letter grading.

247. Small Group Cognitive/Behavioral Interventions. (2) Lecture, three hours. Presentation of brief theoretical interventions for children at risk for suicide, depression, conduct problems, and HIV, with didactic and experiential techniques.

M288. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (4) Same as Community Health Sciences M288.) Lecture, four hours. Requisites: Community Health Sciences 100 and Epidemiology 100, or prior social sciences courses. Overview of social and behavioral factors which influence both transmission and prevention of HIV/AIDS throughout the world. Letter grading.

M272. Psychological Anthropology. (4) Same as Anthropology M207.) 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 psychology. Discussion of questions related to symbolic and unconsciousness process as they relate to culture. Topics vary from term to term. May be repeated for credit with topic change. S/U or letter grading.


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 cell and 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 of behavior, formal assessments, and developing and carrying out individualized educational and behavioral programs. Theoretical and practical background furnished through one-hour weekly lecture. S/U or letter grading.


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Psychiatry and Biobehavioral Sciences / 635


293. Professional Development: Presentations and Preparations for Academic Interviews. (Se) 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 to various audiences, and preparing research and/or teaching statements for job applications. S/U grading.

294. Essentials of Clinical Investigation. (2) Lecture, two hours. Discussion of research methodology and methods for conducting responsible research. Students must register before enrollment; add/drop permitted by instructor and student prior to enrollment. 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 use 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 component parts such as background, proposal, 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 IBS 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 supervision of faculty members responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

402. Journal Club. (1) Seminar, two hours; outside study, two hours. Presentation of participants’ current research. Critical review of recent articles on drug abuse. Training sessions included in areas in which fellows believe they have a recognized need. S/U grading.

403. Individual Case Supervision. (1 to 4) Preparatory: submission of written proposal to be structured by instructor and student prior to enrollment; additional training in private practice carried out 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, didactic—case formulation, theory, and applications to patient management. S/U or letter grading.

405. Trauma and Sexual Abuse Research Seminar. (4) Seminar, three hours; discussion, one hour. Designated for graduate and medical students and resident physicians interested in learning about biobehavioral trauma research. Introduction to DSM-IV TR diagnostic criteria for posttraumatic stress disorder (PTSD), and re-opening, re-processing, and re-alerting; and gaining familiarity with theory, and applications to patient management. 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 programs as well as licensed healthcare professionals 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 competence 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 trance state. 407C. Application of hypnotic interventions in specific clinical situations and with specific populations.


429. Child Outpatient Department Team Meetings to coordinate clinical activities of trainees in Child Outpatient Department. Discussion of literature and theories related to selected cases. S/U grading.


431A. Developmental disorders, including autism, Asperger’s, mental retardation, disabilities, and Attention Deficit/Hyperactivity Disorder. Current conceptualizations of these disorders used to form assessment techniques, including choice of instruments and interpretation of results. Practical issues in pediatric neuropsychology, including ethics, educational law, and interdisciplinary interventions. 431B. Neurodevelopmental disorders, hearing, injury, learning disabilities, such as Down syndrome, weight, tumors, and epilepsy. 431C. Implementation of research from previous two terms in case presentation format, supplemented with various guest speakers.

433. Behavioral Addictions: Addiction Psychiatry. (1) Seminar, one hour. Cutting-edge research in neuroscience of addictive behavior, using both animal models and human participants. Neuroscience findings regarding mechanisms of addictive substances, such as alcohol, nicotine, and related behavioral traits (e.g., impulsivity, risky decision making). Some lectures provided by nationally recognized invited guest speakers.

449. Parent Training Intervention Workshop. (2) Lecture, 90 minutes; discussion, one hour. Advanced clinical trainees learn behavioral techniques of assessment and treatment of parent-child problems. Lectures, case presentations, and workshops on various skills necessary.

454. Advanced Topics in Neuropsychology. (1) Seminar, one hour. Coverage of topics in even years that involve interface of neuropsychology with other disciplines, such as behavioral and structural neuroimaging, cognitive remediation, ecological validity of neuropsychological assessment, cognition and genetics, and psychometrics/test development. Focus in odd years on current models of human neuropsychology, such as models of working memory, neuropsychology of emotion and social cognition, models of implicit versus explicit learning, types of attention, and models of executive processes. S/U grading.

468. Translational Neuroscience of Drug Addiction. (1) Lecture, one hour. Designed for graduate students. Students need cross-disciplinary knowledge to understand drug abuse etiology, behavior, consequences, and treatment. Coverage of major topics in drug addiction by emphasizing use of animal models to understand human addiction and to disclose how findings derived from human studies can be used to expand development of animal models. S/U grading.

479. Genetics Clinic Presentation. (No credit) Weekly clinical teaching session on patients seen in preceding genetics clinic. In-depth discussion on genetics of each disorder.

480. Analysis of Human Chromosome Studies. (1) Chromosome karyotypes prepared in cytogenetics laboratory during preceding week presented and discussed with reference to clinical findings. Teaching includes interpretation of karyotypes and technical aspects of routine and special chromosome stains.

482. Clinical Practicum in Childhood Anxiety and Related Disorders. (3) Clinic, two hours. Training in cognitive-behavioral assessment and treatment of children and adolescents with anxiety and related disorders. Didactic and experiential training, including direct patient care, clinical supervision, and participation in weekly team meetings. Letter grading.

490. Human Genetics Seminar. (No credit) Seminar, one hour. Preparation: introductory genetics course. Weekly lecture series intended for those interested in human genetics or in joinable topics in genetics. Guest speakers are invited for their expertise or research in some special area related to human genetics and may be from UCLA or elsewhere. No grade given.

M490. Educational Advocacy. (2) Same as Law M431. Clinic, two hours (12 weeks). How to provide educational advocacy based on IDEA, ADA, and Section 504 of Rehabilitation Act on behalf of children with learning disabilities, behavior disorders, and mental retardation. S/U or letter grading.

596P. Individual Studies in Psychiatry. (2 to 12) Tutorial, to be arranged. Preparation: submission of written proposal outlining course of study (to be structured by instructor and student at time of initial enrollment). Additional information and course proposal forms available in Office of Education, 38-216.
duce a paper based on each term of their experience in a research laboratory or approved fieldwork site. Through completion of the capstone experience students are expected to identify a research topic and hypothesis to be tested or a fieldwork project and goals, show that they can organize and integrate information related to the topic or project in a clear manner in their own words, demonstrate ability to find and utilize supporting literature relevant to their project or topic, and successfully relate the paper to their experience in the laboratory or fieldwork setting.

Psychology BA

The Psychology major is the most general of the three majors and offers both broad and in-depth coverage of the fundamental and traditional areas of psychology. It provides students with a strong foundation for postgraduate education in psychology and can serve as excellent preparation 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, or better in the remaining courses): Life Sciences 1 or 7A or 15 or Physiological 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, 25W, 29, 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 premaj or 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
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• 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 a 2.5 overall grade-point average in the preparation courses) by the end of the summer quarter of the third year to be eligible to petition to declare the Cognitive Science major: Life Sciences 1 or 7A or 15 or Psychological Science 3; Chemistry and Biochemistry 2 or 14A or 17 or 20A or Linguistics 1 or 20 or Psychology / 639

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, 137H, 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, Neurosciences 102, M145, C177, 180, 181, 182, Philosophy 124 through 137, Statistics 100A, 100B, 100C, 101B, 101C, and (4) in the junior or senior year, two capstone terms of Psychology 195B or 196B (may be fulfilled by taking any two courses from 195B or 196B 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 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, one semester of organic chemistry with laboratory, one introduction to psychology course, one psychological statistics course, and one psychology research methods course. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

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

The Major
After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

Required.

Ecology and Evolutionary Biology 100 or 129 or Psychology 118, and Psychology 110, 115 (or M117A, M117B, and M117C), 116 or Neuroscience 101L, 120A or 120B; (2) one course from Psychology 127A, 127B, 127C, 130, 133A through 133I, 135, 150, 161; (3) 16 units of graded elective courses from the following list: Ecology and Evolutionary Biology 112, 113A, 114A (no more than one from this group), Psychology 111, 112A through 112D, M117A, M117B, M117C, M117J, 119A through 119X, 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 M174. One of the four additional courses must include either Psychology 130 or one course from 133B through 133I.

Internship Requirement/Fieldwork Component (8 units): Psychology 134C, 134D (must be taken concurrently with course 134A), 134E (must be taken concurrently with course 134B). Students work as interns for three consecutive academic terms at one of several UCLA child care centers serving infants, toddlers, and/or preschool-age children. The internship provides hands-on experience working with young children and opportunities to closely observe children and teachers.

No more than two courses may be applied toward both this minor and a student's major.

A minimum of 20 units applied toward the major 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 is in the Department of Psychology is a major training center for students in the clinical psychology PhD program, one of the top-ranked programs in the country. It provides a broad range of psychological services to children and adults, including assessment and individual, couples, family, and group therapy. Clients cover the entire age range and represent diverse populations in the community.

Student therapists receive very close supervision and utilize research-based cutting-edge psychological interventions. Students and faculty members are also involved in a variety of research projects through the clinic.

Graduate Study

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

Graduate Degrees

The Department of Psychology offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Psychology.

Psychology

Lower-Division Courses

10. **Introductory Psychology.** (4) Lecture, four hours. General introduction including topics in cognitive, experimental, personal, developmental, social, and clinical psychology; six hours of psychological research and a grade of C or better required of all departmental premajors. P/NP or letter grading.

15. **Introductory Psychobiology.** (4) Lecture, three hours. Designed for nonmajors. Survey of genetic, evolutionary, physiological, pharmacological, and experiential factors affecting behavior. Using comparative approach where appropriate, emphasis on relevance of behavioral mechanisms to understanding of humans and their interaction with their environment. 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.

20A. **MATLAB Programming for Behavioral Sciences.** (4) Laboratory, one hour. Review: course 20A. Introduction of advanced topics in MATLAB programming for behavioral sciences, including Psychtoolbox, advanced MATLAB graphics and input/output, simulations and modeling, and efficient MATLAB coding. Active programming during class and for homework required. P/NP or letter grading.

85. **Introduction to Cognitive Science.** (4) Lecture, three hours. Exploration of computer metaphor of mind as an information-processing system, focusing especially on perception, knowledge representation, and thought based on research in cognitive psychology, neuropsychology, and artificial intelligence. Many examples from visual information processing.
88A-88Z. Lower Division Seminars. (4 each) Seminar, three hours, Enforced requisites: course 10. Limited to freshmen/sophomores. Intensive analysis in seminar situations of selected topics of current psychological interest. Consult Schedule of Classes for topics and times. May be repeated for credit.

88A. Stress, Adaptation, and Coping. Limited to freshmen. Physiological and psychological processes related to stresses and strains of daily living and potential relations of these processes to disease states. Examination of multifaceted nature of coping with stressors and exploration of strategies for stress management. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and 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 for seniors. Individual study with faculty mentor. Students must be in good academic standing and enrolled as seniors. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Psychology. (4) Seminar, three hours; lecture, one hour. 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 as freshmen or sophomores (excluding seminar 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 students with 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, two hours. Requisites: courses 10, 100A, 100B. General laboratory course for psychology students to acquire basic 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. Designed for seniors/juniors. 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, 110. Designed for introductory majors. Laboratory with experience in techniques of study of learning, especially with animals. Letter grading.

112A. Basic Processes of Motivated Behavior. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 100B, 110. Examination of some basic processes underlying motivated behavior, stressing environmental determinants of behaviors such as feeding, drinking, and reproductive behaviors, and the physiological mechanisms that contribute to such behaviors. Consideration of topics such as reinforcement, acquired motivation, and drug addiction. Evaluation of evidence obtained in laboratory studies conducted with animals. P/NP or letter grading.

112B. Psychobiology of Fear and Anxiety. (4) Lecture, three hours. Requisites: courses 100A, 100B, 110. Recommended: course 115. Designed for juniors/seniors. Examination of biological and behavioral approaches to fear and anxiety, taken from laboratory and applied research. In addition to overview of major 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. Psychology of Anxiety and Depression. (4) Lecture, two and one half hours; discussion, 30 minutes. Requisites: courses 110 and 115, or Neurosciences M101A, M101B, and M101C. Limited to juniors/seniors. Examination 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 where 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, 100B, 110, 115. Designed for juniors/seniors. Investigation of scientific study of cognition and behavior in animals. Topics include perception and attention, working and reference memory, temporal and spatial learning, and counting, concept formation, and abstract reasoning. Most discussions focus on laboratory findings with animals, as viewed from evolutionary framework concerned with natural histories of animals. P/NP or letter grading.

115. Principles of Behavioral Neuroscience. (4) Lecture, three hours; discussion, one hour. Requisites: course 100A, Life Sciences 2 or 7A or 7C. Not open to students with credit for course M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Physiological Science M180A). Designed for juniors/seniors. Nervous system anatomy, physiology, pharmacology, and their relationship to behavior. P/NP or letter grading.

116. Behavioral Neuroscience Laboratory. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 100A, 100B, 110. Recommended for Psychobiology 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, four hours. Requisites: courses 100A, 115, or M117A. 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 1B or 5C or 5C or 6B. Not open to students with 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 systems; how assemblies of neurons process complex information and control movement. P/NP or letter grading.

M117T. 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 Physiological Science M180A; Neuroscience majors must have grade of C– or better) or Physiological Science 111A; Life Sciences 3 and 4 (4 may be taken concurrently), or 7C. Molecular biology of chemicals and receptors; formation of dendritic channels and neurotransmitter receptors. Molecular biology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, and muscle. Classical experiments and modern neuronal approaches in development and plasticity of the nervous system. P/NP or letter grading.

M117C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. 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; Life Sciences 3 and 4 (4 may be taken concurrently), or 7C. Neuronal mechanisms of motivation, learning, and cognition. P/NP or letter grading.

M117J. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181, Neuroscience 1130, Physiological Science 1181, and Psychiatry 1181) Lecture, three hours. Requisites: course 115 or M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Physiological Science M180A) or Physiological Science 111A. Underlying brain systems involved in psychiatric symptoms and neurological disorders, including schizophrenia, depression, bipolar disorder, obsessive/compulsive disorder. Provides understanding of neurological mechanisms that contribute to disorders and rationales for pharmacological treatments. P/NP or letter grading.


119C. Cognitive Neuroscience. (4) Lecture, three hours. Requisite: course 115 or M117C. Understanding complex mental functions depends on interplay of cognitive psychology and behavioral neuroscience. Designed to provide advanced undergraduate students with current perspectives on how complex processes of mind may be understood using neuroscientific techniques. P/NP or letter grading.


119E. Stress and Bodily Disease. (4) Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Psychobiological processes that contribute to development of stress responses and disease states. Consideration of stress-related topics, including behavioral and pharmacological variables in stress and stress disorders,

119F. Neural Basis of Behavior. (4) Lecture, three hours. Requisite: course 115. Designed for junior/senior majors. Presentation of current data and theory concerning...
cerring 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. Normalizing 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. Requisite: course 115. Emerging advanced lecture topics in neuroscience given by visiting speakers, with additional lecture for discussion of high impact material. Reading of published scientific articles. P/NP or letter grading.

119Q. Psychobiology of Sleep and Dreams. (4) Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Study of measurement of sleep, comparison of sleep in mammal species and sleep in sub-mammalian species, circadian rhythms and circadian 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.


119V. Brain and Art. (4) Lecture, three hours. Requisite: course 115. Multiple forms of art express unique cultural roots of art. P/NP or letter grading.

119W. Perception, Learning, and Learning Technology. (4) Seminar, three hours. Requisites: courses 10, and 120A or 120B. Analysis of recent research on basic processes and structural components that comprise the human memory system. Discussion includes motivational issues and practical implications of such research for instruction, marketing, and witness testimony. P/NP or letter grading.


124E. Language and Cognition. (4) Lecture, three hours. Requisite: courses 10, and 120A or 120B. Designed for juniors/seniors. Recent theories of language and cognition; nature of categories, feedback, and error detection in language and cognition; modularity; ambiguity; knowledge acquisition; processes and representations underlying perception, production, attention, and awareness in language and cognition. P/NP or letter grading.

124F. Thinking. (4) Lecture, three hours. Requisite: course 120A or 120B. Analysis of experimental studies of human cognition: reasoning, theories of language, decision making, problem solving, creativity, and related topics. P/NP or letter grading.

124J. Perception, Learning, and Learning Technology. (4) Seminar; three hours. Requisite: course 120A or 120B. Aspects of perception and cognition as they relate to learning and potential for learning technology. Basic knowledge about visual information processing, perceptual learning, knowledge representation, pattern recognition, attention, memory, and expertise, as well as research on learning, technology, and applications of perceptual and cognitive con-

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/NP 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 127C. Designed for departmental majors. Methods, designs, and issues in conduct of clinical psychology research. Students develop and conduct research. Content varies by instructor. Focus 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, obsessive-compulsive disorder, schizophrenia) across lifespan, including role of biological, behavioral, social, cognitive, and cultural factors, diagnosis and treatment approaches. Discussion of Stigma and depictions of individuals with psychological disorders. P/NP or letter grading.

127B. Abnormal Psychology: Biological Bases. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Not open for credit to students with credit for course 127A or 127B. Study of biological processes involved in etiology, presentation, and course of psychiatric 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/NP or letter grading.

127C. Abnormal Psychology: Developmental Perspectives. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Not open for credit to students with credit for course 127A or 127B. Study of abnormal development from infancy through adolescence and early adulthood. Clinical disorders include behavioral disorders, depression/anxiety, alcohol/substance disorders, eating disorders, and autism spectrum. P/NP 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 development of research literature dealing with a few representative personality dimensions. P/NP or letter grading.

129C. Culture and Mental Health. (4) Lecture, two hours; discussion, one hour. Requisites: courses 10, 100A. Introduction to study of culture and human behavior in general and culture and mental health in particular. Emphasis on cultural groups that comprise major U.S. ethnic groups (i.e., African Americans, Latinos/Chicanos, Asian Americans, and American Indians). P/NP or letter grading.

129D. Personality. (4) Lecture, three hours. Requisites: courses 10, 100A. Study of major topics in field of personality, including personality theory, personality assessment, and physiological, behavioral, and cultural role of perception, learning, and motivation in personality. P/NP or letter grading.


129F. Clinical Psychology of Childhood and Adolescence. (4) Lecture, two hours; discussion, one hour. Requisite: course 127A or 127B or 127C. Survey of child and adolescent psychology and psychotherapy from a developmental perspective. Coverage includes major topics such as anxiety disorders, depression, conduct and attention problems, eating disorders, and autism, with information on prevalence, causes, common treatments and their effects. P/NP 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 adolescence. P/NP or letter grading.

131. Research in Developmental Psychology. (4) Discussion, one hour; laboratory, three hours. Requisites: courses 127A 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 analyses and data presentation options. Letter grading.

132A. Learning Problems, Schooling Problems: Policy. (4) Discussion, one hour; laboratory, three hours. Designed for seniors/juniors. Exploration of different orientations to persons with learning problems, emphasizing assessment and intervention approaches and psychological implications. Topics include interaction of learner and environment, socio-political nature of classroom, psychological impact of schooling, grades, and evaluations, process versus goal focus in learning. P/NP 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/NP or letter grading.

133A. Adolescent Development. (4) Lecture, three hours. 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/NP or letter grading.

133B. Cognitive 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/NP or letter grading.

133C. Language Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of principles of cognitive development to study 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/NP 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/NP or letter grading.

133E. Perceptual Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Topics include origins and development of human perceptual abilities, including sensory and cognitive correlates, and important aspects of the environment, ecological and computational issues in perception, research and theory about initial perceptual capacities, and some sensory foundations. P/NP 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 educational issues such as gender, race and ethnicity, language and mathematics, exceptional children, early childhood education, and education of the disadvantaged. P/NP or letter grading.

133G. Culture and Human Development. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Role of culture in human development through psychology, anthropology, and autobiographies of students related research interest. Assignments to read and discuss in problem sessions, through empirical research projects, to diverse cultural backgrounds in class, at UCLA, and in the broader community. P/NP or letter grading.

133H. Applied Developmental Psychology. (4) Lecture, four hours; discussion, one hour. Requisites: courses 10, 100A. Application of developmental psychology to issues pertaining to improving well-being of children and their families. Topics include quality of child care, patterns and ranges of normal child behavior, developmental disabilities, safety, legal, and public policy issues, child-rearing practices. P/NP or letter grading.

134A. Applied Developmental Psychology: Infant/Toddler Care and Education. (4) Lecture, three hours; discussion, one hour. Designed for Applied Developmental Psychology minors. Coverage of children zero to three years old. Topics include physical, cognitive, social, and emotional development of children, developmental disabilities, safety, legal, and public policy issues, role of educator/caregiver, and other related issues. Letter grading.

134B. Applied Developmental Psychology: Preschool/Elementary School 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.


134D. Fieldwork in Applied Developmental Psychology. (2) Fieldwork, 86 hours per term. Enforced corequisite: course 134A. Designed for Advanced 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/NP grading.

Children's development. P/NP or letter grading. The naturalistic backgrounds and impact of these dynamics on three hours. Requisites: course 10, one course from social stratification, and mass phenomena. P/NP or letter grading. Designed for juniors/seniors. Interrelationships between work behavior of women and men. Topics include antecedents of career choice, job findings, leadership, performance evaluation, discrimination and evaluation bias, job satisfaction, and interdependence of work and family roles. P/NP or letter grading.

M134I. Child, Family, and Community. (4) Lecture, three hours. Requisites: course 10, one course from 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.

M135. Social Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for Psychology majors. Interactional hierarchy between the individual and his social environment. Social influences on motivation, perception, and behavior. Development and change of attitudes and opinions. Psychological analysis of small groups, social stratification, and mass phenomena. P/NP or letter grading.

M136A. Social Psychology Laboratory. (4) Lecture, one hour; laboratory, two hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Introduction to research designs and methods used to test social psychological hypothesis, including fieldwork with survey research, naturalistic observation, and questionnaires. P/NP or letter grading.

M136B. 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, and questionnaires. P/NP or letter grading.

M136C. 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 on the design 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.

M137A. Sport Psychology. (4) Lecture, three hours. Designed for junior/senior Psychology majors. Introduction to field of sport psychology. Coverage of research on the psychological aspects of a broad range of topics, 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., affect for junior/seniors and body language, gesture, and kinematics), with strong emphasis on body language. Readings from variety of related fields. P/NP or letter grading.

M137C. 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.

M137D. Psychology of Diversity. (4) Lecture, three hours. Requisites: course 10. Designed for juniors/seniors. Examination of how culture, socioeconomic class, ethnicity, gender, and other group differences are created, perceived, and maintained. Emphasis on how these factors influence cognitive processes approaches to contemporary problems including management of diverse workforce, international integration, racial tension, 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, leadership, performance evaluation, discrimination and evaluation bias, job satisfaction, and interdependence of work and family roles. P/NP or letter grading.

M137F. Introduction to Sport Psychology. (4) Lecture, three hours. Designed for juniors/seniors. Survey of topics in sport psychology, including leadership and team dynamics, aggression and aggression prevention, personality, motivation, fan behavior, and performance enhancement. Consideration of youth sport through world-class athletics. P/NP or letter grading.

M137G. Social Cognitive Neuroscience. (4) Lecture, three hours. Designed for juniors/seniors. Examination of how various forms of nonexperimental methods for study of social cognitive neuroscience methods, with particular emphasis on functional magnetic resonance imaging (fMRI). P/NP or letter grading.


M137K. 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 expression, experience of emotions in our closest social relationships, and emotion and psychology of human emotion. 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, personal and group conflict, and psychological analysis of public opinion on these issues.

M139. Persuasion on Autism and Neurodiversity. (4) (Same as Disability Studies M139) Seminar, three and one half hours. Genealogy of autism as diagnostic category and cultural phenomenon from its historical roots as new, rare, and obscure condition in early 1940s to its current contested status as minority identity and/or global epidemic. Examination of material sociocultural and psychological aspects of autism, including psychology, neuroscience, arts and humanities, popular media, anthropology, activism, and critical autism studies. Students encounter multiple perspectives on autism and put them in conversation with one another. Attention paid to way people on spectrum define, explain, and represent their own experiences of autism and discussion of what ramifications the 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 M140) Lecture, three hours. Designed for juniors/seniors. Perspectives on major features of human aging—biological, psychological, and humanistic. Introduction to information on range of influences on aging to prepare students for subsequent specialization. P/NP or letter grading.

M142H. Advanced Statistical Methods in Psychology (Honors). (4) Lecture, three hours; laboratory, two hours. Requisites: courses 100A, 100B. Survey of statistical techniques commonly used in psychology, education, and behavioral and medical sciences: correlational techniques, analysis variance, and multiple regression. P/NP or letter grading.


M147A. Psychology of Lesbian Experience. (4) (Same as Disability Studies M147A and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M147A) Lecture, two hours; discussion, one hour. Requisite: course 10 or Gender Studies 10, one statistics course. Designed for seniors. Review of research and theory in gender studies and psychology to examine various aspects of lesbian experience, including identity and/or global epidemic. Examination of material sociocultural and psychological aspects of lesbian experience, impact of het- erosexism/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 M152H) Lecture, three hours; discussion, one hour (when scheduled). Exploration of processes through which children learn structures and practices of language and become competent participants in linguistic and social worlds around them. Examination of language use and socialization over childhood across communities of practice, and across different ethnic and socioeconomic groups. Bridges work from anthropology, psychology, linguistics, and cognitive science. Topics include cross-cultural perspectives, development and wide range of methodological approaches. Examination of ways in which language development and socialization interface with culture, modality, inequality, education, and cognition. P/NP or letter grading.

150. Introduction to Health Psychology. (4) Lecture, three hours. Requisite: course 10. 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 majors. Examination of interactional biobidirectional 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.

161. Behavioral Brain Development. (4) Lecture, three hours; Requisites: courses 10, 100A, limited to juniors/seniors. Exploration of relationship between brain development and behavior. Examination of how cognitive, behavioral, and affective measures can be used to study normal development and how developmental approach can advance progress in cognitive and developmental sciences. P/NP or letter grading.

162. Psychology of Addiction. (4) Lecture, three hours; discussion, one hour (when scheduled). Survey of topics covering psychological and neurobiological theories of addiction, pharmacological effects of drugs and abuse, etiology, assessment, diagnosis, and treatment. P/NP or letter grading.

M163. Death, Suicide, and Trauma. (4) [Same as Sociology M138.] Lecture, three hours; discussion, one hour. Sociological analysis of incidence of violent death. Suicide is eighth leading cause of death in U.S. and third leading cause of death in people ages 15-24. Both kinds of violent deaths are often dismissed as extreme psychopathology, reflecting individual mental health issues. Sociologists argue that suicide and homicide are social facts. Suicide and homicide do not occur randomly in society but are stratified according to social factors such as age, gender, race, sexual orientation, and class. Analysis of strength of this sociological argument and evaluation of explanatory potential of different theories to make sense of violent death, paying particular attention to forensic and medicolegal system to determine suicide and homicide and how developmental approach can advance progress in psychological and developmental sciences. 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 during adolescence influence adolescent behavior and well-being. Focus specifically on puberty and sleep, which both lead to consequential effects on behavior, health, and brain development. P/NP or letter grading.

M165. Psychology of Gender. (4) [Same as Gender Studies M165.] Lecture, three hours. Consideration of psychological literature relevant to understanding contemporary sex differences. Topics include sex-role development and role conflict, physiological and psychological differences between women and men, 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 M106.] 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 of analysis. referred to when discussing the issue of prejudice, and related 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 social science research on media and technology during development to understand positive and negative roles of technology and media in children’s lives. Topics include social media, video games, brain development, and learning with technological tools from age 2 through 18 (and trajectories of usage). 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 cultural forces which impact on interpersonal relationships of African-American women as members of large society and as members of their biological and ethnic group. P/NP or letter grading.

173. Advanced Abnormal Psychology. (4) Lecture, three hours; Requisites: courses 100A, 127A or 127B or 127C. Examination of research and theory concerning origins, course, and outcomes of disordered behavior. Focus on continuity and change in pathological development of mental illness. Emphasis on research and critical analysis of mental and behavior disorders. Concentration on one of following: childhood disorders, anxiety, 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 other factors can functionally produce and affect healthcare outcomes in racial/ethnic minorities. Focus on critical thinking about assumptions that shape life and death research, clinical practice, and social and behavioral sciences as they relate to racial and ethnic minority populations and to teach students to integrate concepts of culture and health disparities into their work in biologic, political, psychological, genetic, and clinical health interventions. 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. P/NP or letter grading.

M176SL. Addressing Racism in Racial/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 methods of how to address social determinants related to negative health outcomes in racial/ethnic minority neighborhoods and communities and to experience how to use social determinants literature in service of collaborative activities with community organizations. P/NP or letter grading.

177. Counseling Relationships. (4) Lecture, two hours; discussion, two hours; Requisites: courses 10, 100A, and 127A or 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 psychosocial 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 M181B.] Seminar, three hours. Corequisite: course M181A. Limited to Developmental Disabilities Program students. Examination of broad spectrum of approaches to mental 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 M181A.] Lecture, one hour; laboratory, eight hours. Corequisite: course 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 Programs. (2-4) 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 juniors/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 research requirement for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

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/seminar departmental majors. Models of cognition within framework of explanation at multiple levels of abstraction. Examples of elementary models in multiple psychological domains (e.g., visual perception, categorization, and problem solving). Types of models include neural networks and symbolic models. Lectures and discussions interspersed with computer simulations written in MATLAB. P/NP or letter grading.

186B. Cognitive Science Laboratory: Neural Networks. (4) Laboratory, four hours. Requisites: courses 10, 85, 100A, 100B, Mathematics 31A, 31B, Program in Computing 10A, 10B. Designed for junior/seminar departmental majors. Models of cognition within framework of explanation at multiple levels of abstraction. Examples of elementary models in multiple psychological domains (e.g., visual perception, categorization, and problem solving). Types of models include neural networks and symbolic models. Lectures and discussions interspersed with computer simulations written in MATLAB. P/NP or letter grading.

186C. Cognitive Science Laboratory: Psychophysical Theories and Methods. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 85, 100A, 100B. Designed for junior/senior departmental majors. Lectures and laboratory work that examine perceptual measurement procedures (psychophysical methods) and cognitive and psychophysical decision models on which procedures are based, with particular emphasis on signal detection theory and its applications. Letter grading.
186D. 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 pixel basis of MR signal to data analysis. Letter grading.

187A. Psychology and Law. (4) Lecture, two hours; discussion, two hours. Designed for juniors/seniors. Study of new topics on legal psychology, including suspect identification, witness reports, and police procedures. Outside speakers utilized in presentation of these materials. Students participate in presentations and debates.

187B. Advanced Psychology and Law. (4) Lecture, three hours; discussion, one hour. Requisite: course 187A. 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.

187C. Sex and Law. (4) Lecture, three hours. Designed for juniors/seniors. Examination of Constitutional foundation for sexual rights in America, with focus on freeedom of speech and press, right to privacy, and Ninth Amendment rights reserved by the people. P/NP or letter grading. Required corequisite: course 187A.

188A. Special Seminars: Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Departmentally sponsored experimental or temporary seminars on selected topics in psychology, such as those taught by visiting faculty members. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP or letter grading.

188B. Special Courses in Psychology. (4) Lecture, three hours. Designed for junior/senior majors. Departmentally sponsored experimental or temporary courses on topics of psychological interest, such as those taught by visiting faculty members. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

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 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.

190. Research Colloquia in Psychology. (1) Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

191. Variable Topics Research Seminars: Psychology. (1 to 4) Seminar, one hour. Limit to juniors/seniors. Research seminar on selected topics in psychology. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP grading.

191AH-191BH-191CH. Departmental Honors Research Seminars. (1 to 4) Seminar, two hours. Enforced corequisite: course 19B. Course 191AH is requisite to 191BH, which is requisite to 191CH. Limited to psychology honors program students. Opportunity for development and analysis of creative ideas through individual research projects with faculty supervisor and discussion of student and faculty research presentations. Information and applications may be obtained from Undergraduate Advising Office, 1531 Franz Hall. If approved in advance by Undergraduate Office, courses 191CH and 198 may be applied toward elective course requirement for any Psychology Department major. Letter grading.

192. Education Practices in Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist with clinical and research related to psychology. Students assist in preparation of materials and development of innovative programs under guidance of faculty members and teaching assistants. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

193. Journal Club Seminars: Psychology. (1) Seminar, one hour. Limited to the undergraduate studies. Discussion of readings selected from current literature of particular field or attendance at and write-ups of speakers series. May be repeated for credit. P/NP grading.

194A. Internship Seminars: Psychology. (2) Seminar, two hours. Corequisite: course 195A. Study of research methods, applications, and current literature through group discussion, presentation, and papers. Registration for each semester by instructor. 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 Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

196. Research Internships: 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 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.

194G. 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 research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May 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.

194D. Research Group Seminars: Practicum. (1) Seminar, one hour. Corequisite: course 198. 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 research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May 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: Enforced corequisite: course 194A. 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.

194B. Research Apprentice ship in Cognitive Science. (3 to 4) Tutorial, eight hours. Corequisite: course 194B. Designed for juniors/seniors. Practical applications of psychological research projects. May be repeated for credit. 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 185, 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 supervising students. 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 Psychology Department major. Individual contract 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 psychological research projects. May be repeated for credit. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

196B. Research Apprenticeship in Cognitive Science. (3 to 4) Tutorial, eight hours. Corequisite: course 194C. Limited to junior/senior Cognitive Science majors. Practical applications of cognitive science through research under guidance of faculty mentor. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May be applied toward course requirements for Cognitive Science major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

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 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 taste aversion. S/U or letter grading.

200B. Instrumental Conditioning. (4) Lecture, three hours. Topics include animal learning and conditioning, and the application of learning principles to goal-directed action, motivational processes, and goal selection in nonhuman animals. S/U or letter grading.

201. Current Issues in Learning and Behavior. (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 aggression and drug addiction. Historical survey of behavioral analyses of motivation and goal-directed behavior. S/U or letter grade.

204B. Theory and 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 research, animal research, and genetics.

205A. Cortical Plasticity and Perceptual Learning. (2) Lecture, three hours. Designed for graduate students. Examination of neural basis of perceptual learning, especially 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 molecules involved in interneuronal communication processes (i.e., neurotransmitters, neuropeptides, neuromodulators, neurtropic agents). Discussion of their roles in normal brain physiology, followed by detailed analysis of their perturbations in various disease states. Special 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 synaptic transmission, 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 anatomic 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. Seminar on topics in Behavioral Genetics: contributions to cognition and behavior and disorders thereof. Letter grading.

205J. Attention. (2) Lecture, three hours. Designed for graduate students. Review of cognitive neuroscience and attention from classical psychological models to modern computational models. Focus on perception, with brief coverage of attention in action and decision. Letter grading.

205K. Vision Neurobiology. (2) Lecture, three hours. Designed for graduate students. Exploration of anatomy, physiology, and computation in visual system, focusing on 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 characterizations of electrophysiological responses recorded in primate temporal lobe. Discussion of issues regarding neural representation of knowledge. Letter grading.

205N. Introduction to Biological Signal Processing. (4) Lecture, three hours. Introduction to basic electronic 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, electrophrenogram (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. Seminar in Behavioral Neuroscience. May be repeated for credit. S/U or letter grading.

208. Biology of Learning and Memory. (4) Seminar (Same as Neurobiology M200G and Neuroscience M220G). Lecture, four hours. Molecular, cellular, circuit, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.


212. Evaluation of Research Literature in Physiological Psychology. (1) 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 Psychology in Social and Behavioral Science. (4) Lecture, three hours. Limited to graduate students. Major themes include conceptualization and operationalization of epidemiologic and behavioral determinants for understanding of basic anatomy and activities of biological systems that relate psychological factors to health, and interconnections between these systems. Letter grading.

216A. Psychology of Chronic Disease. (4) Seminar, three hours. Limited to graduate students. Major themes include conceptualization and operationalization of epidemiologic and behavioral determinants for understanding of basic anatomy and activities of biological systems that relate psychological factors to health, and interconnections between these systems. Letter grading.

216B. Psychoneuroimmunology. (4) Seminar, three hours. Limited to graduate students. Introduction to field of psychoneuroimmunology to help students develop conceptual and methodological skills necessary for interpreting research in this area. Letter grading.

216C. Psychology of Women’s Health. (4) Seminar, three hours. Limited to graduate students. Examination of theoretical and empirical advances in psychology of women’s health, exploring the context of women’s health, stress and depression in women, psychological aspects of gynecological health, major causes of morbidity and mortality for women, and women’s health-related behaviors. Letter grading.

216D. Psychology of Aging and Health. (4) Seminar, three hours. Limited to graduate students. Discussion of theory and research on biological, emotional, social, and behavioral processes that link childhood family social environments to long-term mental and physical health. Letter grading.

216F. Community Psychology. (4) Seminar, three hours. Limited to graduate students. Social problems focus, with discussion of both conceptual and methodological issues that arise when designing and evaluating community interventions. Issues related to conceptualization of social problems and their analysis to problems of individuals, and presentation of multidimensional explanatory models and interventions for several social problems. Special attention to ethnic and socioeconomic health psychology. Methodological issues faced in conducting research on these issues. Letter grading.
216G. Biology of Chronic Disease. (4) Seminar, three hours. Limited to graduate students. Examination of basic epidemiology and biology of major chronic diseases (e.g., cardiovascular disease, cancer, diabetes) and consideration of practical and logistical issues involved in studying chronic disease populations in behavioral and population research. S/U or letter grading.

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 change research, and generation of hypotheses and design research using major 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 methods, measurement issues, responsible conduct of research, and related issues that are found in research in health psychology. S/U or letter grading.

219. Health Psychology Lecture Series. (2) Formerly numbered 425L. Lecture, one hour. Clinicians and researchers in health psychology from Los Angeles, San Francisco, and programs for clinical work as part of training program in health psychology. May be repeated for credit. S/U grading.

220A. Social Psychology. (4) Lecture, three hours. Designed for graduate psychology students. Intensive consideration of concepts, theories, and major problems in social psychology.


220C. Advanced Social Psychology. (4) Lecture, three hours. Requisites: courses 220A or 220D. Review of contemporary topics and issues in social psychology.

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 figure/person. 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 across social sciences in general, including anthropology, political science, and sociology. S/U or letter grading.

222D. Social Stigma. (4) Seminar, three hours. Introduction to classic and contemporary theory and research on social psychology of stigma, primarily from perspectives of psychology. S/U or letter grading.

222E. Individuals and Groups in Organizations. (4) (Same as Management-PhD M243.) Lecture, three hours. Designed for graduate students. Doctoral-level survey of 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 form and develop opinions, and perceptions are affected by organizational context, content, and culture. S/U or letter grading.

222F. Professional Issues in Psychology. (4) Seminar, three hours. Acquisition of skills essential for success in graduate school and academia more broadly, 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 observers utilize visible cues in face and body to form impressions of other people and how these perceptions are moderated by existing knowledge structures and motivations. S/U or letter grading.


226A. Research Design and Conduct. (2–2–2) Current Literature in Social Psychology. (226C. Current Literature in Social Psychology. (2–2–2) Discussion, 90 minutes. Course 225A is limited to first-year social psychology students. Courses 226B and 226C are open to nonsocial psychology students with consent of instructor. Recent and current research papers in social psychology presented by members of seminar and their significance and methodology discussed and criticized in depth. S/U grading.

226A. Proseminar: Political Psychology. (4) (Same as Human Developmental Science M261A) Seminar, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, political decision making, and political influence. 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. S/U or letter grading.

229. Social and Cultural Development. (4) Seminar, one hour; discussion, two hours. Social cognition is concerned with how people organize and interpret social information in their environment. Seminar provides broad background in the development of social thought and focuses on particular research topics in the field. Weekly papers, as well as a lengthy final paper, required.

231. Psychology of Gender. (4) Seminar, three hours. Preparation: one prior course on gender, women, or sexual orientation. Emphasis on current research and theory concerning psychology of gender, with emphasis on work in various areas of psychology to understand sources of gender differentiation and its consequences for human behavior and social interaction. S/U or letter grading.

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 and research, 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 in environmental psychology designed to identify basic dimensions for analysis of man/environment relationships. Use of human emotional responses to environment as intervening variables linking specific stimuli 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 and the sources and consequences of competitive stress, significant adult influences and interactions, predictors of performance, determinants of participation and dropping out, and socialization through sport.

235. Personality. (4) Seminar, three hours. Preparation: one prior course on personality. Emphasis on long-term measurement of personality traits over time, with emphasis on analyzing survey data; instruction in qualitative strategies for enhancing survey research on psychosocial phenomena.

236. Interdisciplinary Relationship Science. (4) (Same as Anthropology M295S, Education M297, and Sociology M270.) Lecture, three hours. Limited to graduate students. Diverse approaches to relationships in fields of anthropology, education, psychology, and sociology of under-standing biological, behavioral, and cultural aspects of relationships through diverse theoretical and method-ological approaches. Use of broad definition of inter-personal relationships, including relationships such as parent-child, teacher-student, sibling, peer, kin, romantic relationships, marriages, and friendships. S/U or letter grading.

M236. Survey Research Techniques in Psychocultural Studies. (4) (Same as Psychiatry M236.) Seminar, three hours. Designed for graduate students. Techniques for conceptualizing, conducting, and analyzing survey data; strategies for enhancing survey research on psychosocial 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 affiliative domains. S/U or letter grading.

240A. Language and Cognitive Development. (4) Lecture, three hours. Preparation: one undergraduate developmental psychology course in cognitive or language development. Designed for graduate students. Consideration of major topics and concepts, key theo-ries, latest methods, and research findings in develop-ment 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. Designed for graduate students. Consideration of key topics and concepts, latest methods, and research findings in social and emotional development. S/U or letter grading.

240C. Developmental Psychobiology. (4) Lecture, three hours. Limited to graduate students. Introduction to emerging field of developmental psychobiology, including cognitive and affective neuroscience.
241. Current Developments in Developmental Psychology. (1) Discussion, 90 minutes. Designed for graduate students. Preparation 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 interpret presentations by graduate students. S/U grading.

242A–M242G. Seminars: Developmental Psychology. (4) Each course may be taken independently and may be repeated for credit. S/U or letter grading.

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 puberty, conflicts, parents, peers, identity development, high-risk behaviors, social and school adjustment. Letter grading.

243A–243B. Seminars: Practical and Societal Issues in Developmental Psychology. (4–4) Seminar, three hours. Requisites: courses 240A, 240B. Socialization processes in human development and implication for social/political, educational, research issues, values, and societal change. In Progress (243A) and S/U or letter (243B) grading.

244. Critical Problems in Developmental Psychology. (4) Lecture, three hours. Requisites: courses 240A, 240B. Current problems; content varies depending on interest of class and instructor. May be repeated for credit with consent of instructor.

245. Perceptual and Motor Development and Education. (4) (Same as Education M217C) Lecture, four hours. Review of research and theory of critical content areas in personality development that bear on school performance: achievement motivation, self-concept, aggression, sex differences, empathy, and other social behaviors; review of status of emotional behavior in personality theory and development. S/U or letter grading.

246. Psychological Aspects of Mental Retardation. (4) (Same as Psychiatry M246L) Lecture, 90 minutes. Discussion of psychological aspects of mental retardation, including classification, description, etiology, treatment, assessment, modern and future developments, and input from other disciplines (ethics, law, religion, welfare systems). S/U or letter grading.

247. Brain and Behavioral Development During Adolescence. (4) Seminar, three hours. Foundation and emerging work on adolescent brain and behavior development. Topics include cognition, risk taking, emotion, identity, stress, relationships, and population differences of normal and abnormal. Readings 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. Interdisciplinary presentation and discussions of current topics in quantitative psychology. May be repeated for credit. S/U grading.

250A. Advanced Psychological Statistics. (4) Review of fundamental concepts. Basic statistical techniques as applied to design and interpretation of experimental and observational research.

250B. Advanced Psychological Statistics. (4) Advanced experimental design and planning of investigations.

250C. Advanced Psychological Statistics. (4) Lecture, three hours; discussion, two hours. Requisite: course 250A. Limited to graduate students. Review of statistical topics in correlation and regression analyses, including model comparison strategies, evaluation of model assumptions, testing mediation and moderation hypotheses, working with categorical variables, general linear model, and logistic regression. Letter grading.

251A–251B. Research Methods. (4–4–4) Tutorial, to be arranged. Designed for graduate psychology students. Students design and conduct original research projects under supervision of instructor in charge. It is anticipated that many students will complete their project in two terms (normally three terms allowed). S/U (251A, 251B) and S/U or letter (251C) grading.

252A. Multivariate Analysis. (4) Lecture, three hours. Requisites: courses 250A, 250B. Introduction to analysis of data having multiple dependent variables. Topics include categorical and multivariate distributions, multiple regression, multivariate analysis of variance, discriminant analysis, canonical correlation, principal component analysis. Applications from clinical, cognitive, physiological, and social psychology. Computer methods.

252B. Discrete Multivariate Analysis. (4) Lecture, three hours. Requisites: courses 250A, 250B. Introduction to analysis of frequency table data. Topics include categorical univariate and multivariate distributions, independence and conditional independence, log-linear models, multivariate categorical designs, and ordered categorical variables. Applications from various areas of psychology.


254A. Computing Methods for Psychology. (4) Lecture, three hours. Requisites: courses 250A, 250B. Use of MATLAB, but only basic programming knowledge assumed; no prior knowledge of MATLAB is required. Designed to teach basic computer methods relevant to work in experimental psychology and cognitive science. Topics include simulation/modeling, statistical data analysis, and stimulus presentation. S/U or letter grading.

255A. Quantitative Aspects of Assessment. (4) Lecture, four hours. Requisites: courses 250A, 250B. Introduction to issues concerning empirical measure of abstract constructs using both classical and modern empirical techniques. Hands-on approach allows students to develop practical experience. In addition to discussion of issues concerning reliability and validity, topics include exposure to analytic approaches, including item response theory, multiple regression, principal components analysis, exploratory factor analysis, confirmatory factor analysis, path analysis, and structural equation modeling. S/U or letter grading.


256A. Introduction to Multilevel Modeling. (4) Lecture, four hours. Requisite: course 250C. Basics of random coefficient models for analysis of data from (1) individuals nested within groups and (2) repeated observations (e.g., longitudinal models). Selected advanced topics, including three- level models, cross-classification, dyadic data, categorical outcomes, power, and assumption violation. S/U or letter grading.

256B. Advanced Multilevel Modeling. (4) Lecture, four hours. Requisite: course 256A. Advanced topics in analysis of clustered and longitudinal data, including nonlinear models, multilevel mediation, nonhierarchical data structures, meta-analysis, modeling variance, and other topics of student interest. Readings in both quantitative and substantive multilevel modeling literature. S/U or letter grading.

257. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M208D and Statistics M242) Lecture, three hours. Introduction to models and methods for analysis of data generated by unmeasured latent variables, including latent variable analogues of traditional methods in multivariate analysis. Causal modeling; theory testing via analysis of moment structures. Measurement models such as confirmatory, higher-order, and structured-means 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.


259. Quantitative Methods in Cognitive Psychology. (4) Requisites: courses 250A, 250B. Number of non-statistical mathematical methods and techniques commonly used in cognitive psychology. Topics include Markov chains, other stochastic processes, queueing theory, information theory, frequency analysis.

260A–260B. Cognitive Psychology. (1–1–1) Presentation of research topics by students, faculty, and visiting scholars. May be repeated for credit. S/U grading.

261. Perception. (4) Lecture, three hours. Concepts, theories, and research in the study of perception. Considers the questions: Why do things look, sound, smell, taste, or feel as they do? What is the nature of perceptual systems? How do these systems process information?


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 251R research at an early stage to insure completion. S/U grading.

271E-271F. Clinical Research Laboratories. (2–2) Corequisite: course 271D. Designed for graduate clinical psychology students. Required of first-year clinical psychology students. S/U grading. 271E. Overview of research design issues in clinical psychology and practical issues in students’ own research activities. 271F. Discussions of students’ particular research activities and issues, plus laboratories in computer analysis of statistical data.

271G. Evidence-Based Intervention for Childhood Problems. (4) Fieldwork, five-day, 35-hour training period in Fall Quarter. Requires: courses 217A, 271B, 271C. Designed for second-year graduate clinical psychology students. Training of students in application of (1) child treatment outcome literature, (2) clinical question formation, (3) feedback tools, and (4) common clinical strategies from evidence-based practices to prepare for assessment, monitoring, planning, and service delivery in child psychology. S/U grading.


272C. 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. Survey of major family therapy theory 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, research, and assessment. May be taken independently for credit. Letter grading.

272E. Special Problems. (4) Seminar, three hours. Requires: course 271C. May be taken independently for credit. 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 behavior modification principles and techniques. Major conceptual issues; specific techniques demonstrated and practiced by students to cover a range of adult problems. Emphasis on anxiety disorders, anger, management, assertion problems. May be taken independently for credit. Letter grading.

272G. Marital Therapies. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Requires: courses 270A, 270B, 270C, 271A, 271B, 271E. Examination of assessment and treatment approaches for relationship problems in couples. Presentation, discussion, and illustration of procedures derived from social-learning, psychodynamic, and systems theories, with relevant research findings. May be taken independently for credit. Letter grading.

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 students in clinical practice, including legal and ethical issues, child abuse, suicide assessment, issues in empirically validated treatments, psychiatric consultation and psychopharmacological medications, working with diverse client populations, etc. Letter grading.

274. Health Status and Health Behaviors of Racial and Ethnic Minority Populations. (4) (Same as Health Policy and Management M274.) Lecture, two hours; discussion, one hour. Limited to graduate students. Overview of mental health behaviors and status of major racial/ethnic groups in U.S. Where appropriate, discussion of international issues as well. S/U or letter grading.

275. Conceptual and Methodological Issues in Community Intervention. (4) Lecture, three hours. Limited to graduate students. Conceptualization of social problems from macrosocial perspective; discussion of multidimensional explanatory models for select illustrative problems; discussion and critical evaluation of both individual-focused and community-focused interventions with high-risk and impacted populations. S/U or letter grading.


277A-277B. Advanced Clinical Assessment. (4–4) Formerly numbered 277L. Lecture, four hours; laboratory, three hours. Designed for graduate clinical psychology students. Projective techniques, clinical interpretation, case studies, psychological test battery, psychopathology, and application of assessment to problems in psychotherapy. Letter grading.

278. Functional Neuroimaging: Techniques and Applications. (3) (Same as Bioengineering M284, Neurobiology M285, Physics and Medicine in Biology M285, and Psychological and Brain Sciences M285.) Lecture, four hours. In-depth examination of activation imaging, including fMRI and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained thus far in human system. Strong focus on understanding technologies, how to design activation imaging paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiment, S/U or letter grading.


M280. Affective Disorders. (2 or 4) (Same as Psychiatry M234.) Seminar, two hours. General topics related to primary affective disorders, including depression, mania, manic depressive illness, including diagnosis, pharmacology, epidemiology, psychopathology, and psychotherapy. Students enrolled for 2 earn two units each week. Prerequisite: course 272G or 273C or 277A-277B-277C. Designed for advanced graduate students. Cognitive/behavioral approaches to prevention and treatment of mental health problems in children. Examination of service delivery systems for treating troubled youth and discussion of issues with respect to current systems of care. Major problems include conduct disorders, attention deficit disorder, depression, anxiety, and learning disabilities. S/U or letter grading.


M288A-M288B. Principles of Neuroimaging I, II. (4–4) (Same as Neuroscience M284A-M284B and Psychology M284A-M284B) Seminar and laboratory, one-half day, one lecture and one laboratory per week. In-depth understanding of methods of brain imaging. Letter grading.


approaches to study of drug addiction, schizophrenia, and other behavioral processes, both normal and pathological. S/U or letter grading.

292. Biobehavioral Mechanisms of Stress and Disease. (4) Lecture, three hours. Designed for graduate psychology students. Behavior/physiological interactions of some major bodily systems: nervous, cardiovascular, gastrointestinal, and endocrine systems. Usual and altered states of these systems (e.g., stress) as they promote permanent tissue injuries, disease, or improved bodily function, health enhancement. S/U or letter grading.

292B. Psychosocial Contributors to Ethnic Disparities in Health. (4) Seminar, three hours. Limited to graduate sociocultural class, gender, and other psychosocial factors in accounting for disparities in physical and psychological health in racial/ethnic groups. Attention to variety of specific disorders, with focus on explanatory models and approaches to intervention. S/U or letter grading.


295. Psychology of Diversity. (4) Seminar, three hours. Introduction to research and theory on groups and differences of 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. Letter grading.

296A. Research Topics in Psychology. (1) Research group meeting, one hour. Limited to graduate students. Discussion of current literature, new ideas, methodological issues, and preliminary findings. Research presentations and opportunities for feedback on current and proposed research activity to encourage, support, and facilitate student research expertise. Assigned reading included. S/U grading.

296B. Research Group Seminars: Practicum. (1) Seminar, fall, winter, spring. Designed for graduate students who are part of research group that meets with undergraduate students. Discussion of research methods and current literature in field or of research of faculty members or students. Concurrently scheduled with course C194D, S/U grading.

296C. Special Problems in Psychology. (4) Discussion, three hours. Content depends on interests of particular instructor. May be repeated for credit. S/U or letter grading.

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. Fieldwork in Clinical Psychology. (1 to 12) Fieldwork, to be arranged. Requisites: courses 271A, 271B, 271C. Students on practicum assignments are required to register for this course each term (except by consent of clinical program committee). Letter grading.

402. Clinical Research Practicum. (2) Fieldwork, two hours. Faculty and graduate students who share interests discuss 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 quarter for quarter- or self-led 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) Clinic, 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) Clinic, 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. Determination of what areas of health, illness, treatment, and delivery of treatment can be elucidated by understanding the relationship between physical and psychological processes; how psychological perspective might be enlarged and extended in medical area. Topics include clinical and research methods and practices, students are required to study 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. Forum for faculty and graduate students pursuing research on a common topic to share research ideas, make research presentations, and obtain feedback on study designs, procedures, and results to foster collaborative investigations in common research areas. S/U 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 interviews, surveys. S/U or letter grading.


454. Internship in Industrial Psychology. (2 to 4) Fieldwork, to be arranged. Letter grading.

495. Presentation of Psychological Materials. (4) Seminar, to be arranged. Supervised practicum in undergraduate teaching. Students serve as discussion section leaders in selected undergraduate courses. 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 Research and Study in Psychology. (2 to 12) Tutorial, to be arranged. One or more courses are required during second year of graduate study, and one or more courses is required during each succeeding year of graduate study. (Terminal MA candidates are exempt from this requirement.) S/U grading.

597. Individual Studies. (2 to 12) Tutorial, to be arranged. Designed primarily as preparation for PhD qualifying examinations. May be required by some area committees as requisite for taking examinations. S/U grading.

599. Research for PhD Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: successful completion of qualifying examinations. One 599 course is required during each year following completion of qualifying examinations. S/U grading.

PUBLIC AFFAIRS
Interdisciplinary Minor
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Anastasia Loukaitou-Sideris, PhD (Urban Planning)
Aaron L. Panofsky, PhD (Public Policy, Sociology and Genetics, Sociology)
Sarah J. Reber, PhD (Public Policy)

Scope and Objectives
The Public Affairs minor teaches undergraduate students the skills of policy analysis and exposes them to many of the local, state, national, and international issues facing today’s policymakers and opinion leaders. Courses explore the public (governmental) and nonprofit sectors and provide a theoretical, conceptual, and practical foundation for students. Particular attention is given to the vexing issues facing urban areas and urban planners, social welfare and social workers, and public policies that affect individuals and groups of people in their public and private lives.

Undergraduate Study
Public Affairs Minor
To enter the Public Affairs minor, students must have an overall grade-point average of 2.0 or better and complete Public 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 105SSL, 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.

Undergraduate Study
Public Affairs 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 advisors 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-term capstone sequence Public Affairs 194A, 194B, and 194C taken concurrently with 195A, 195B, and 195C; (4) three additional upper-division public affairs courses. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the major.

Public Affairs

Lower-Division Courses
10. Social Problems and Social Change. (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 potentialities 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. Contemporary and historical 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, and 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 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 interdepartmental degree program—the PhD in Molecular Toxicology—is also available.

Eight concurrent degree programs (Community Health Sciences MPH/Urban Planning MURP, Environmental Health Sciences MPH/Urban Planning MURP, Public Health MPH/African Studies MA, Public Health MPH/Asian American Studies MA, Public Health MPH/Law JD, Public Health MPH/Management MBA, Public Health MPH/Public Policy 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

Lower-Division Courses

10. Introduction to Public Health. (4) Seminar, three hours. Designed for lower-division students. Introduction to range of topics, issues, and frameworks to help students understand current public health issues and public health systems, policies, and practices. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illustrating many paths of discovery at UCLA. P/NP grading.

53. Introduction to Health of Underserved and Linguistic Minority Communities. (4) Lecture, three hours. Population projections, population characteristics, birth rates and outcomes, causes of death and death rates, patterns of reportable diseases, services 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.
utilization, patterns of immigration, health insurance, provider training, risk behaviors, and chronic diseases in Latino and other underrepresented minority communities in Los Angeles County. Letter grading.

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

Upper-Division Courses

M106. Health in Chicano/Latino Population. (4) (Same as Chicana and Chicano Studies CM106.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Examination of Chicano/Latino health status through life expectancy, causes of death, reportable diseases, services utilization, provider supply, and risk behaviors within demographic/immigration changes. Binational review of health effects in U.S. and Mexico. Letter grading.


M151. Healthcare in Transnational Communities. (4) (Same as Sociology M142.) Lecture, three hours; discussion, one hour. Analysis of social, cultural, economic, and political processes affecting organization and accessibility of healthcare in transitional and disadvantaged communities. Fieldwork required. Letter grading.

M160A. Health Outreach and Education for At-Risk Populations. (4) (Same as Medicine M160A.) Lecture, four hours; possible field observations. First in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, with field visits. P/NP or letter grading.

M160B. Health Outreach and Education for At-Risk Populations. (4) (Same as Medicine M160B.) Lecture, two hours; discussion, two hours. Requisite: course M160A. Second in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, discussion groups, and field activities including health education. P/NP or letter grading.

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. Interactive seminar with focus on developing teaching materials for courses and acquisition of skills and tools that help students to become successful and innovative instructors. Active learning methodologies and competencies-based approach to instruction. S/U or letter grading.

490. Public Speaking Mastery for Public Health Professional. (2) Lecture, two hours. Lectures with in-class exercises, or in-class presentations followed by coaching feedback. Topics focus on developing range of communication skills necessary for students to become confident and effective public speakers. Master’s and doctoral students in programs housed in School of Public Health who are interested in learning how to prepare and deliver impactful, compelling presentations with confidence and professionalism are encouraged to enroll. S/U grading.

495. Preparation for Teaching in Public Health. (2) Seminar, two hours. Designed for graduate students. Prepares individuals who will serve as teaching assistants for courses in Fielding School of Public Health. Study of methodologies in teaching public health, including implementing active learning strategies, effectively communicating goals for student learning, developing course materials that are consistent with expectations for student learning, creating inclusive teaching environment, and dealing with difficult situations. S/U grading.
analysis, developing their applications with examples from instructor’s own research, visitors, small student projects, or field trips. P/NP or letter grading.

10B. California Policy Issues. (4) Lecture, three hours; outside study, nine hours. Application of policy analysis to the California issue. Guest lectures from practitioners and academics along with readings and videos. Student written reports and oral presentations required. Letter grading.

10C. Public Policy for Crime, Cannabis, and Other Drugs. (5) Lecture, three hours; outside study, twelve hours. Application of policy analysis, including critical analysis, problem solving, and substantive policy research, to develop knowledge and understanding about drug and crime policy, with focus on cannabis. Guest lectures by instructors and guest academics and practitioners, with readings from academic literature and policy reports. P/NP or letter grading.

10D. Public Policy and Urban Homelessness. (3) Lecture, three hours; outside study, film review, and field/volunteer work, nine hours. Application of policy analysis to issues and solutions concerning homelessness. Guest lectures from local policy makers. 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 readings, discussions, 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 and departmental honors programs. Designed as adjunct to lower-division lecture course. Individual study with lecture course advisor to 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. Guided research topics, supervision, and evaluation. 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.

C101. Drug Abuse Control Policy. (4) Lecture, three hours; outside study, nine hours. Introduction to drug abuse as social problem and to drug abuse control as policy issue, with examination of both necessity and difficulty of making and executing wise policies around psychoactive substances. Concurrently scheduled with course C25. Letter grading.

102. Imperfect Rationality. (4) Lecture, three hours; outside study, nine hours. Idea that individuals are capable of acting rationally, in their own interest, is central to economic theory and to custom, law, and common sense. Rationality offers theories about the way people act in such situations and 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 living here today? Are they capable of acting rationally, in their own interest, is central to economic theory and to custom, law, and common sense. Rationality offers theories about the way people act in such situations and develop new quantitative or social science methodologies to analyze such questions, but to enhance their critical thinking skills. 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, examination 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 important education issues. Topics vary each year and include multiculturalism, affirmative action, test score gap, bilingual education, and school choice. Introduction to major arguments among educators and assessment of education 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 of medical advancement, 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 the 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.


C120. Race, Inequality, and Public Policy. (4) Seminar, three hours; discussion, one hour. Background in economics, sociology, or urban studies preferred but not required. Survey course to examine major debates and current controversies regarding public policy responses to social problems in urban America. Letter grading.

C124. Budget Politics, Social Policy, and Entitlement Reform. (4) Lecture, three hours; outside study, nine hours. Examination of politics of public budgeting in the U.S., with emphasis on financing of social safety net. Exploitation of budgetary processes as setting both for gaining substantive knowledge about how government really works and for developing political skills required to influence resource allocation decisions. Concurrently scheduled with course C239. Letter grading.

C125. Rights and Wrongs of Affirmative Action. (4) Lecture, three hours; discussion, one hour. Exploration of race-based affirmative action from moral, political, social, and legal viewpoints. Topics include defining discrimination, individual and group equality; different meanings of “diversity”; meritocracy and its critics; historical and future-based arguments; social policy possibilities; and possibilities for moral compromise. Letter grading.

M127. Understanding Public Issue Life Cycle. (4) (Same as Political Science M142D.) Lecture, three or four hours; discussion, one hour (when scheduled). Examination of key policy issues such as (1) economic and political incentives of various actors—business news media, mass public, organized interests, Congress, the president, regulatory agencies, and courts and (2) ideology, cognitive biases, and ethical reasoning. P/NP or letter grading.

141. Employment and Labor Policy: Survey. (4) Lecture, three hours; outside study, nine hours. To enable students to (1) think of world in dynamic terms, (2) be able to map, divide, and analyze the world in public policy perspectives, and (3) be able to articulate patterns of flux, change, and movement in world space and history. Concurrently scheduled with course C245. Letter grading.

146. Democracy, Disobedience, and Dissent. (4) Lecture, three hours; outside study, nine hours. Requisite: Philosophy 6 or Political Science 10. Theories of political and legal obligation and their critics; justified disobedience in response to U.S. democratic political and philosophical analyses of reasons for government regulation. Analysis of current data on labor unions, the workplace, and labor-market trends. Workforce diversity and training, social welfare policy, and global issues (immigration, trade, and global economy as it affects the workforce). Future trends and issues on policy horizon. Letter grading.

147. Labor Policies in the Global Economy: Perspective. (4) Lecture, three hours; outside study, nine hours. Requisite: course 10A. Insight into evolution of labor policies in the U.S. from 19th century to the present. Exploration of important policy areas such as child labor, labor standards, protective legislation for women workers, industrial relations, civil rights, occupational safety and health, and international labor standards in (1) historical context (economic, political, interests, Congress, the president, regulatory agencies, and courts and (2) ideology, cognitive biases, and ethical reasoning. P/NP or letter grading.

148. Business and Public Policy. (4) Lecture, three hours; outside study, nine hours. Requisite: course 10A. Insight into evolution of labor policies in the U.S. from 19th century to the present. Exploration of important policy areas such as child labor, labor standards, protective legislation for women workers, industrial relations, civil rights, occupational safety and health, and international labor standards in (1) historical context (economic, political, interests, Congress, the president, regulatory agencies, and courts and (2) ideology, cognitive biases, and ethical reasoning. P/NP or letter grading.

C147. Critical Policy Issues and Problems in Globalizing World. (4) Lecture, three hours; outside study, nine hours. To enable students to (1) think of world in dynamic terms, (2) be able to map, divide, and analyze the world in public policy perspectives, and (3) be able to articulate patterns of flux, change, and movement in world space and history. Concurrently scheduled with course C245. Letter grading.

C148. Business and Public Policy. (4) Lecture, three hours; outside study, nine hours. Requisite: course 10A. Introduction to key issues arising at interface between business and government policy. Discussion of why government focuses so intensively on regulating economic outcomes, nature of government-business relationship, business political activity, and major government policies. Topics include economic regulation (industrial policy, antitrust, technology policy); social regulation (energy, environment, risk, liability, corporate governance); and corporate social responsibility, business ethics, and green business. Discussion of topics in their historical and political context, with comparison between economic regulation in the U.S. and other countries. Letter grading.
M140. 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 special emphasis on incentives of polluters to reduce their pollution and incentives of local, federal, and state government to address these issues. Focus on measurement and empirical hypothesis testing. P/NP or letter grading.

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 data acquisition 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. (2) 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.

193A. Marschak Colloquium: Social Sciences. (2) Seminar, two hours. Limited to undergraduates. Attendance at biweekly Marschak Colloquium presentations, highly regarded and long-standing interdisciplinary lecture series given by leading social scientists. Emphasis on discussion of lecture 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. Designed to provide individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and timely completion 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. 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; studio, 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, expectations, 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, externalities, 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, economic, and institutional structures to show where 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. 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 organizational decision-making strategies in face of challenges, and negotiation as invaluable skill. Examples from public and private sectors, as well as experiential learning through exercises analysis. Letter grading.

210. Methods of Policy Analysis. (4) Lecture, three hours; outside study, nine hours. Preparatory course that precedes three-term 298A, 298B, 298C sequence in which 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.

211. Normative Issues in Policy Analysis. (4) Lecture, three hours; discussion, one hour. Limited to graduate students. Introduction to some basic normative categories, arguments, and tools essential for addressing questions of public policy. Normative questions are those that concern whether actions, characters, or states of world are right or wrong—or, in less absolute cases, better or worse than possible alternatives. Allegedly value-free methods of analysis do not help decide policy questions. Certain policy questions raise normative concerns sooner or more urgently than others: those that go beyond matters of economic efficiency and touch on questions of human dignity, justice, equality, or national or cultural traditions. Some questions that seem to be subject to different answers on different grounds are distinct from those of efficiency. Discussion of disagreement that exists over what efficiency is and in what cases or across what dimensions it ought to govern. Letter grading.

M212. 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 light of public child welfare policy and development of development of infrastructure to support needs of children and families. S/U or letter grading.

M213. Mental Health Policy. (4) (Same as Social Welfare M290K.) Lecture, three hours. Examination of evolution of public policy and services for mentally ill, with emphasis on political, economic, ideological, and sociological factors that affect views of mentally ill and services they are provided. S/U or letter grading.


M215. Health Policy. (4) (Same as Social Welfare 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.

M216. Public Policy for Children and Youth. (4) (Same as Social Welfare M290N.) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction with schools and community, with emphasis on impact of policy across cultural, ethnic, and educational lines. 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 social 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 hypothesis, jobs/housing balance, transportation in strong central city and polycentric city, neotraditional town planning debate, rail transit and urban form. Letter grading.

M221. Travel Behavior Analysis. (4) (Same as Urban Planning M253.) Lecture, three hours. Requisites: 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, assignment, field criticism 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 M259.) Lecture, three hours. Overview of transportation finance and economics; concepts of efficiency and equity in transportation finance; historical evolution of highway and transit systems; public versus private issues in highway finance; private participation in road finance, toll roads, road costs and cost allocation, truck charges, congestion pricing; current issues in transit finance; 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 or 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, analysis of points, lines, and areas, geographic databases, and 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.

M226. Management Challenges and Tools for Nonprofit Sector. (4) (Same as Social Welfare M290U and Urban Planning M286.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Fundamental building blocks for successful management in nonprofit sector. Students develop management, administrative, and planning skills needed for project management, team building, and negotiation. Use of case studies to troubleshoot critical challenges, from finance to crisis management to marketing, that nonprofit managers typically face. 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 M286 and Urban Planning M288.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Various patterns of community action for attaining social welfare objectives: research and data gathering, development and implementation of field-critiqued 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, fiduciary and legal responsibilities, tax restrictions, and strategic planning, fundraising, non-profit accounting, and employment law. S/U or letter grading.


M234. Labor Markets and Social Policy. (4) Lecture, three hours; outside study, nine hours. Examination of analytical tools and conceptual models needed to understand policies directed toward people in lower tail of income distribution. Concepts include static and dynamic labor supply, labor demand, compensating differentials, human capital, and economic models of immigration and crime. Letter grading.

C235. Drug Abuse Control Policy. (4) Lecture, three hours; outside study, nine hours. Introduction to drug control policy, drug abuse as social problem and to drug abuse control as policy issue, with examination of both necessity and difficulty of making and executing wise policies around psychoactive substances. Concurrency scheduled with course C101. Letter grading.

37. Ethical Questions in Public Life. (4) Lecture, three hours; outside study, nine hours. Introduction to moral issues that commonly arise in public life. Ethics of political roles, political power, moral integrity, lying and deception, place of rhetoric in defending stand on issues, politics and violence. Letter grading.

238. Issues in Cultural Policy. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. Survey of major theories and meanings of culture and cultural activities in contemporary society. Overview of relevant theories of culture and their ramifications in such phenomena as consciousness, ideology, and identity.

Empirical examination of what policymakers have said and done about promotion of culture in interests of various social goals. Contemporary trend of economic and cultural intersecting to be subject for trend analysis. Examination of globalization and national cultural interests in depth. General debate on logic and meaning of cultural politics in contemporary society and their consequences for trajectories of cultural policy at local, national, and international levels. Letter grading.

C239. Budget Politics, Social Policy, and Entitlement Reform. (4) Lecture, three hours; outside study, nine hours. Examination of politics of public budget decisions in the U.S., with emphasis on social safety net. Exploitation of budgetary process as setting both for gaining substantive knowledge about how government really works and for developing political skills required to influence resource allocation decisions. Concurrency scheduled with course C124. Letter grading.

M240. Theories of Regional Economic Development. I. (4) (Same as Geography M230A 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 interpret social survey data on 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.

242. 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 M272S.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of 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 system 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, transportation for elderly and disabled, and intelligent transportation systems. Letter grading.

C245. Critical Policy Issues and Problems in Globalizing World. (4) Lecture, three hours; outside study, nine hours. To enable 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, causes and movement in world space and history. Concurrency 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
opinion; nature and purpose of elections; representation; policies; and purpose of democracy as whole—through both classic political theory treatments and modern research in American political behavior. Letter grading.

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 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 private analysts and policymakers on other. Letter grading.

M248. Toleration, Pluralism, and Diversity. (4) (Same as Political Science M216.) Seminar, three hours. Personal experience in political theory helpful. Exploration of both abstract concepts of toleration and contemporary disputes. S/U or letter grading.

CM250. Environmental and Resource Economics and Policies. (4) (Same as Urban Planning M267.) Lecture, three hours. Requires: courses 204 and 208, or Urban Planning 207 and 220B. Survey of ways of economics is used to define, analyze, and resolve problems of environmental and resource management. Overview of theoretical and practical questions addressed by environmental economists that bear on public policies. Concurrently scheduled with course C115. Letter grading.

251. Public Budgeting and Finance. (4) (Same as Political Science M211.) 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 and questions based on assigned readings, development of budget strategy matrix outlining best practices budget strategies to use in various resource scarcity situations. 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: History and 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 current research using current and existing research. Letter grading.

271. Urban Poverty, Workforce Development, and Public Policy. (4) (Same as Management M250A.) 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 populations. 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 M251L.) 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 M229B.) Lecture, three hours. Economic growth, patterns of advances in science and technology, and actions of maximizing innovators and factors impinging on their behavior. How technological breakthroughs (or discontinuities) can spark new industries or transform nature of and population of competitors. 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, economic, political, scientific, and technological aspects. Concurrently scheduled with course CM182. Letter grading.

M289A-M289B. Immigration, Racial Change, and Education in 21st-Century Metropolis. (4) (Same as Education M289A-M289B, Political Science M287A-M287B, and Sociology M290A-M290B.) Seminar, three 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 the 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 with majority. How this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, broadening participation in 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. Evaluation of economic and political determinants of trend toward privatizing public services, and equity and efficiency outcomes of this trend as expressed through new pricing, financed opportunity 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. Directed to 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.

M296. 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. Historians and how and why 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.

M296. 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, pharmaceutical 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 perspectives on Medicare; policy 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.

M268. Microeconomic Theory of Health Sector. (4) (Same as Health Policy M236L.) 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.

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 financing (Medicare and Medicaid), uninsured, and health insurance reform. Examination of effects of managed care on health and costs, consumer protection movement, and rise of competitive health insurance. Letter grading.


M289A-M289B. Immigration, Racial Change, and Education in 21st-Century Metropolis. (4) (Same as Education M289A-M289B, Political Science M287A-M287B, and Sociology M290A-M290B.) Seminar, three 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 the 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 with majority. How this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, broadening participation in 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. Evaluation of economic and political determinants of trend toward privatizing public services, and equity and efficiency outcomes of this trend as expressed through new pricing, financed opportunity and service-level policies. Exploration of new regulatory role this trend implies for state and local governments. Letter grading.

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Radiation Oncology

David Geffen School of Medicine

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Radiation Oncology
310-825-9775

Michael L. Steinberg, MD, Chair
Daniel A. Low, PhD, Vice Chair, Division of Medical Physics
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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. S/U 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

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Radiological Sciences
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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 951511
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. Bodiford, PhD (Asian Languages and Cultures)
John P. Caniero, PhD (Near Eastern Languages and Cultures)
Michael D. Cooperson, PhD (Near Eastern Languages and Cultures)
Scope and Objectives

The undergraduate major in Study of Religion equips students to understand and compare creatively the worldwide varieties of core convictions, stories, texts, rituals, and practices known collectively as religion. Students complete courses in a wide range of departments in which religious phenomena are analyzed, including anthropology, art history, Asian languages and cultures, classics, comparative literature, English, history, Near Eastern languages and cultures, philosophy, political science, and world arts and cultures/dance. Students can anticipate gaining versatile intellectual tools for approaching, analyzing, and appreciating the deep roots, human motivations, and history of the formation of religious traditions in their respective cultural contexts. Within this interdepartmental program, students may focus in depth on one or more specific religions. Students may wish to select this major in combination with a second major field, a minor, or related language study.

Undergraduate Study

The Study of Religion major is a designated capstone major. Students must complete an advanced seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Through their capstone work students are expected to demonstrate their ability to plan and carry out a major project, apply subject matter and research methods knowledge to produce a paper or other research project, and organize information into a coherent and persuasive form for oral presentation to their peers.

Study of Religion BA

Capstone Major

Learning Outcomes
The Study of Religion major has the following learning outcomes:

- Demonstrated ability to plan a major project that concludes with writing a cogent and convincing document
- Application of knowledge of a wide-ranging bibliography and of methods of research to thoroughly prepare for seriously engaging an interviewee or for writing the prospectus describing the major project
- Development of skills essential to taking oral histories or doing field research in Los Angeles’ multicultural population
- Ability to organize research data into a coherent and persuasive form for oral presentation to peers
- Demonstrated empathy as a critic of a wide array of religious traditions, institutions, and practices

Preparation for the Major

Required: Study of Religion M4 or 11, and two courses from Ancient Near East 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: one history of religions course, one philosophy of religion course, and two courses from sociocultural anthropology, Buddhism, history of Western civilization, Asian civilizations, civilizations of Africa, and history of China.

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

The Major


Student are encouraged to select courses that focus on a specific religious tradition or traditions, or on a set of thematic issues important to the study of religion. During their senior year students must complete the capstone seminar, Study of Religion 191.

A course may be taken twice, on different topics, for credit toward the major where repetition is allowed by the department offering the course. A maximum of two upper-division courses in an ancient language relevant to the course of study may be applied toward the major requirements with consent of the adviser.

A maximum of 12 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the major. Each course for preparation for the major and the major must be taken for a letter grade.

Honors Program

The honors program provides exceptional students with an opportunity to do independent research under the tutorial guidance of a faculty member. Students admitted to honors should take three Study of Religion 198 courses under the guidance of the sponsoring professor. The first 198 course should be taken in spring quarter of the junior year, the second during the following fall quarter, and the third during winter quarter of the senior year. The three courses count as part of the regular requirement of 12 upper-division courses. The program culminates in an honors thesis.

To qualify for admission students should have a minimum grade-point average of 3.4. The 198 courses designed for the program and the thesis topic should be approved by the committee in charge of the major.

For more information, contact the student affairs officer or the faculty adviser at the program address.

Study of Religion Minor
To enter the Study of Religion minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (4 to 10 units): Study of Religion M4 or 11, or M50 and M60A or M60W.


Student are encouraged to select courses that focus on a specific religious tradition or traditions, or on a set of thematic issues important to the study of religion.

A course may be taken twice, on different topics, for credit toward the minor 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. Core of major historical developments in the study of religion, with emphasis on their beginnings and subsequent developments in the respective historical periods. Equips students with critical tools necessary for thinking and analyzing, and comparatively and comparatively with each other and with the history of science and art in other disciplines. Not open for credit to students with credit for course M60W. Knowledge of Chinese not required. General survey of history of religions in Korea—Shamanism, Buddhism, Confucianism, Daoism, Christianity, and dramatic view of the history of religions in the West. P/NP or letter grading.

M6. Introduction to Buddhism. (5) (Same as History M6.) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. General survey of history of religions in Korea—Shamanism, Buddhism, Confucianism, Daoism, Christianity, and dramatic view of the history of religions in the West. P/NP or letter grading.

M60. Introduction to Buddhism. (5) (Same as History M6.) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. General survey of history of religions in Korea—Shamanism, Buddhism, Confucianism, Daoism, Christianity, and dramatic view of the history of religions in the West. P/NP or letter grading.

M60D. Religion in Classical India. Introduction. (5) (Same as History M6D.) Lecture, three hours; discussion, one hour. Introduction to religious traditions of India, including Hinduism, Buddhism, Jainism, and Sikhism. May be taken independently for credit. P/NP or letter grading.

M60E. Religious Traditions in Southeast Asia. (4) (Same as Southeast Asian M60.) Lecture, three hours; introduction to historical development and contemporary practice of religions in Southeast Asia. Examination of indigenous religious beliefs and major textually based religions, including Hinduism, Buddhism, Islam, and Christianity. P/NP or letter grading.

M60F. Introduction to Buddhist. (5) (Same as History M6F.) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. General survey of Buddhist worldview and lifestyle, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Buddhism. Particular attention to problems involved in study of religion. Satisfies Writing II requirement. Letter grading.


M69. Honors Seminars. (1) Seminar, three hours. Exploration of capacity of religious thought to situate them within their own historical, philosophical, and social contexts. Critical consideration of changing and contested meanings of terms, religions and its relationships 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 biomedical 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 History M105A.) Lecture, three hours. Readings in English, rise and development of Bab, Baha’i and Baha’i religions in context 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 History M105B.) Lecture, three hours. Readings in English, rise and development of Bab, Baha’i and Baha’i religions in context of 19th century Iran. Focus on personalities of Bab, Baha’u’llah, and ‘Abdu’ll-Baha. P/NP or letter grading.

M106. Premodern Islam. (4) (Same as History M106.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of early development of Islam with special attention to doctrine of God, human relations, social and religious authorities, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/NP or letter grading.

M107. Islam in West. (5) (Same as Arabic M107 and Islamic Studies M107.) Lecture, three hours; discussion, one hour. Acquisition of understanding of basic doctrines and practices of Islam. Survey of history of Islam in West, with focus on U.S. and France. Analysis of issues relevant to growth and development of selected Muslim communities in West. Exposure to diverse expressions of Islam through independent research. Selected 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 devotion and practice, and cultural identity. Examination of history Muslims have determined interpretations and applications of Qur’anic doctrines and prescriptions. Critical evaluation and analysis of contemporary interpretations. P/NP or letter grading.

M109. Introduction to Islam. (5) (Same as Islamic Studies M110.) Lecture, three hours; discussion, one hour. Genres of Islam, its doctrines, and practices, with readings from Qur’an and Hadith; schools of law and theology, diet and magic, reform and modernism. P/NP or letter grading.

M110. History of Study of Religion. (4) Lecture, four hours. Recommended requisite: History 4. Survey of modern theories, methodologies, 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 terms, religions and its relationships 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 biomedical studies, anthropology, sociology, psychology, and evolutionary biology. P/NP or letter grading.
M132. Ancient Egyptian Religion. (5) (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/NP or letter grading.

M133. Bible and Qur’an. (4) (Same as Middle Eastern Studies M133.) Lecture, three hours; discussion, one hour. Study of Hebrew Bible/Old Testament, New Testament, and Qur’an to familiarize students with content of scriptures of Judaism, Christianity, and Islam, and socio-cultural background from which these multiform texts emerged, and to explore major themes and consider variety of approaches to scripture. Development of appreciation for role scripture plays in these religious systems and in American culture and society. P/NP or letter grading.

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; origin, and development, with special attention to diversity of religious practice in ancient Israel and Canaan during 1st millennium BCE. P/NP or letter grading.

140. Undergraduate Seminar: Study of Religion. (4) Seminar. Designed for 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/NP 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. Historical introduction to various religions and religious developments in the U.S. to 1776. P/NP or letter grading.

M142D. History of Religion in U.S. (4) (Same as History M142D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of American religious institutions and movements from 1776 to present. P/NP or letter grading.

150. Women, Gender, and Religion. (4) Lecture, four hours. Investigation and consideration of roles, status, and representations 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 religions and religious practices for propaganda or proselyzing purposes are shaped by these religious traditions, including discussions regarding ritual practices, spirituality, sexuality, sexual renunciation, religious authority, marriage and family life, female body, public lives, and literary representations of gender and women. May be repeated for credit with consent of instructor. P/NP or letter grading.


160. Religion, Film, and Media. (4) (Same as Religion M160.) Lecture, four hours. Examination of complex relationship between religious traditions and various media (e.g., philosophy, 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, interreligious conflict, religious education, and use of media in religious propaganda or proselyzing purposes. Historical, sociological, and anthropological approaches used in concert with various methodological currents within media studies. P/NP or letter grading.

M161A. Chinese Buddhism. (4) (Same as Chinese CM161A.) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Introduction and development of Buddhism in China, interaction between Buddhism and Chinese culture, rise of Chinese schools of Buddhism as historical and religious development. P/NP or letter grading.

161B. Japanese Buddhism. (4) (Same as Japanese CM161B.) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Development of Buddhism in Japan in its cultural context, with emphasis on key ideas and teachings. Letter grading.

161C. Korean Buddhism. (4) (Same as Korean CM161C.) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction and development of Buddhism in Korea, interactions between indigenous Korean culture and Sinic traditions of Buddhism, Korean syntheses of imported Buddhist theological systems and meditative techniques, and independent Son (Zen) schools of Korea. Letter grading.

M161D. Buddhism in India. (4) (Same as South Asian CM161D.) 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 iconographical evidence of both formal doctrinal and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Letter grading.

M162. Introduction to Biblical Studies. (4) (Same as Ancient Near East M162.) 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/NP 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 juniors/seniors. Social dimension of various Ways, great and little; Shinto's connection with cultural rationalism, Buddhism's medieval Reformation and Zen's relation to warrior culture, folk religious as pects such as shamanism, ancestor worship, and mul lenarianism. P/NP 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 juniors/seniors. Historical introduction to Islamic com munities of what eventually became nations of India, Pakistan, and Bangladesh. Topics: political, religious, and cultural history. P/NP 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. 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 modernity. P/NP or letter grading.

M175. Topics in Philosophy of Religion. (4) (Same as Philosophy M175.) Lecture, three hours; discus sion, one hour. Requisite: Philosophy 21 or 22. Intensive investigation of one of two topics or works in phi losophy 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.

177. Variable Topics in Religion. (4) Seminar, three hours. Interdisciplinary approach to some major topics in study of religion, such as philosophy, religion and science, religion and society, politics, mysticism, ideas of revelation, scripture, myth and religion, worship and ritual. May be repeated for credit with topic change. P/NP or letter grading.

M178. Variable Topics. (4) (Same as Middle Eastern M178.) Seminar, three hours. Interdisciplinary approach to some major topics in study of religion and Middle Eastern studies. May be repeated for credit with topic change. P/NP or letter grading.

179. Religion and Musical Thought. (4) Lecture, four hours. Examination of how various traditions of modern critical thought inform academic study of religion, with primary focus on philosophical analysis of religious belief and practice and its relation to other areas of critical thought, such as philosophy of language, discourse analysis, epistemology, metaphysics, ethics, practice theory, and political 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 cultural modernity. P/NP 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. Study of social, political, and religious developments. P/NP 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. Exploration of unfolding of Jewish history from rise of Christianity to expulsion of Jews from Spain in 1492. P/NP or letter grading.

M184A. Jewish Civilization: Encounter with Great World Cultures. (4) (Same as History M184A and Jewish Studies M184A.) 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.

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 seniors. Study of world religions, particularly those of the Near East, with emphasis on Mesopotamia and Syria and its role as a bridge between Ancient Israel and the other great world religions. P/NP or letter grading.

M186A. History of Early Christians. (4) (Same as History M186A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Historical and critical study of the early Christian movement from its origins to circa 160 CE, stressing its continuity/discontinuity with Judaism, various reactions to Jesus of Nazareth, contributions during this period, movement's encounters with its religious, social, and political world, and methods of research. P/NP 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. Rich variety in religious practice and thought in Mediterranean world of 1st century CE as it emerged in context of development. Topics include Pharisees, Qumran, Philo, Stoics, Epicureans, traditional Greek and Roman religions, mysticism, astrology, magic, gnosticism, and emperor worship. P/NP 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 juniors/seniors. Stimulation 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/NP or letter grading.
189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Study of Religion. (4) Seminar, four hours. Preparation: completion of preparation for major courses and at least half of upper-division courses required for major (including theory and method courses). Designed for senior majors. Seminar on central method and/or theme in study of religion. Refinement and integration of this knowledge by means of close reading and analysis of primary documents, debating contested issues, and researching and writing original paper. P/NP or letter grading.


199. Directed Research in Study of Religion. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. Twelve units may be applied toward major. Individual contract required. Letter grading.

SCANDINAVIAN SECTION

College of Letters and Science

332 Royce Hall
Box 951537
Los Angeles, CA 90095-1537

Scandinavian Section
310-825-6828

Dominic R. Thomas, PhD, Head
Professor
Timothy R. Tangherlini, PhD

Professors Emeriti
Jesse L. Byock, PhD
James R. Massengale, PhD
Mary Kay Norseng, PhD
Ross P. Shelton, PhD

Associate Professor
Arne O. Lunde, PhD

Lecturer
Patrick J. Wen, PhD

Scope and Objectives

Scandinavia consists of five northern European countries: Denmark, Finland, Iceland, Norway, and Sweden. These countries form a geographic bridge between the American and European continents and a political bridge between Western and Eastern Europe. For all students of literature, language, the arts, and the social and physical sciences, Scandinavia is of particular interest.

The Scandinavian Section offers two majors, one minor, and a Master of Arts program. The BA in Scandinavian Languages and Cultures provides students with a broad, yet robust, knowledge of the languages, literatures, and cultures of the Nordic countries. The BA in Nordic studies trains undergraduate students in a broad, interdisciplinary understanding of the Nordic region. The goal of this major is to provide students with a robust knowledge of the cultures and histories of this region from a global and transdisciplinary perspective. This major allows interested students an opportunity to explore the Nordic region from the perspective of non-Humanities disciplines, if they choose, while requiring a strong grounding in the history and cultures of the region. The minor in Scandinavian Languages is designed to give students a command of the intellectual history of the region and a developing appreciation of its literatures and cultures.

Graduate study leads to the Master of Arts in Scandinavian. Graduate students are expected to concentrate on one Scandinavian language, though they study the literatures of the other areas.

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, 132A, 132B, C133A, 134, C137, 138, (2) theory, genres, and authors—Scandinavian C141A, 141B, 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, 173A, 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 Language 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.

To 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, 138, (2) theory, genres, and authors—Scandinavian C141A, 141C, 142A, 143C, C144A, 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.

14A-14B. Accelerated Elementary Norwegian. (6–8) Lecture, four hours. Requisite for course 14B: course 14A, Accelerated courses 14A and 14B equivalent to courses 11, 12, and 13. Introduction to basics of Norwegian language. Development of ability to converse and write in Norwegian through oral and written exercises. Students read and listen to online sample texts, watch clips of Norwegian programs, and expand on daily homework exercises. P/NP or letter grading.
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics 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. Elementary Danish. (4) Discussion, four hours. P/NP or letter grading.
22. Elementary Danish. (4) Discussion, four hours. Enforced requisite: course 21, P/NP or letter grading.
23. Elementary Danish. (4) Discussion, four hours. Enforced requisite: course 22, P/NP or letter grading.
40. Heroic Journey in Northern Myth, Legend, and Epic. (4) Lecture, three hours. Not open for credit to students with credit for course 40W. Readings in mythology, legend, folktales, and epic, including Nibelungenlied, Volsunga saga, Eddas, and Beowulf. Cultural and historic backdrops to texts. P/NP or 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 50. Not open for credit to students with credit for course 40. All readings in English. Comparison of journeys of heroes. Readings in mythology, legend, folktales, and epic, including Nibelungenlied, Volsunga saga, Eddas, and Beowulf. Cultural and historic backdrops to texts. Satisfies Writing II requirement. Letter grading.
50. Introduction to Scandinavian Literatures and Cultures. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 50. Not open for credit to students with credit for course 50W. Designed for students in general and for those wishing to prepare for more advanced and specialized studies in Scandinavian literature and culture. Selected works from literatures of Denmark, Norway, Sweden, Iceland, and Finland, ranging from myth, national epic, saga, and folktales through modern novel, poem, play, short story, and film, read in English and critically discussed. P/NP or letter grading.
50W. Introduction to Scandinavian Literatures and Cultures. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 50. Not open for credit to students with credit for course 50. Designed for students in general and for those wishing to prepare for more advanced and specialized studies in Scandinavian literature and culture. Selected works from literatures of Denmark, Norway, Sweden, Iceland, and Finland, ranging from myth, national epic, saga, and folktales through modern novel, poem, play, short story, and film, read in English and critically discussed. Satisfies Writing II requirement. Letter grading.
60W. Introduction to Nordic Cinema. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 50. 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 conceptual category. Survey of wide range of films to interrogate relationship between various forms of minor discourse and dominant values, institutions, and mechanisms and inhibits of social control. View 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 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 credit for eligible students. Honors credit noted on transcript. P/NP or letter grading.
89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for Scandinavian Section / 665
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 for 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 for 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.


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 Eddas. 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 critical analysis of social influences and its place among Icelandic sagas. Consideration of history and society that produced these narratives. Concurrently scheduled with course C233A, Letter grading.

133C. Social Network Analysis and Icelandic Family Saga. (4) Seminar, four hours. Exploration of how character interactions can be used as basis for developing social network view of stage on which saga action plays out. Examination of how best to model sagas as dynamic social networks using different types of Icelandic sagas. Examination of how characters, ideas and stories are expanded and recognized, and of how different social pathways may lead to other types of community formations. Study of Icelandic saga toward increasing complexity, developing understanding of characters and character roles, and using this as basis of preliminary investigations. P/NP or letter grading.

134. Scandinavian Mythology. (4) Seminar, three hours. Overview of major gods and goddesses, heroes and heroines, narratives and adventures that make up lore collectively referred to as Scandinavian, or Norse, myth. Reading and examination of this lore that is chiefly preserved in two Building traditions 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, including sagas as well as secondary material, focus on impact of Vikings on northern Europe, and consider ways in which European and Scandinavian societies evolved in response to Viking incursions. P/NP or letter grading.

141A. Theory of Scandinavian Novel. (4) Seminar, three hours. Analysis of predominant structures of Scandinavian novel from 18th-century beginnings through its rise in 19th century, and into 20th century evolution. Discussion of application of contemporary critical theories to novels. May be concurrently scheduled with course C241A. P/NP or letter grading.

141B. Nordic Poetry. (4) Lecture, three hours. Readings in English translation. Survey of Nordic poetry from Middle Ages to present, including Poetic Edda of 13th-century Iceland, Scandinavian ballad tradition, some folk poetry, Iceland's national epic Ka- levala, and modern lyric. Reading of essays on translating poetry and consideration of particular problems poetry presents for translators, as well as what is lost and/or gained in translation. Study of poetry within following contexts: role(s) poetry has served in Nordic societies from 13th century to present day; Nordic poets' influences from and contributions to European literary movements of 18th and 19th centuries, and tropes and conventions of short stories themselves. P/NP or letter grading.

141C. Short Story in Scandinavia. (4) Seminar, three hours. Exploration of range of classic short story and novella texts from Scandinavian literary canon, with stories by authors such as Hans Christian Andersen, Jens Peter Jacobsen, and Knut Hamsun, among others. P/NP or letter grading.

141D. Nordic Prose. (4) Seminar, three hours. Readings and discussion of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavians. May be concurrently scheduled with course C244A. P/NP or letter grading.

141B. Advanced Nordic Prose. (4) Seminar, three hours. Readings and discussion of selected plays by Henrik Ibsen. May be concurrently scheduled with course C245A. P/NP or letter grading.

145B. Knut Hamsun. (4) Seminar, three hours. Reading and discussion of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavians 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 reshaped and shaped literary representation of so-called battle of sexes. His work, as well as its literary transformations, has been placed in Scandinavian, European, and feminist context. May be concurrently scheduled with course C246A. P/NP or letter grading.

147A. Hans Christian Andersen. (4) Lecture, two hours; discussion, one hour. The first of two courses. 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. Soren 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.


148A. Halldor Laxness. (4) Lecture, three hours. Reading and discussion of works in English translation by Icelandic Nobel laureate Halldor Guðmundsson Laxness (1902 to 1998), P/NP or letter grading.

152. Backgrounds of Scandinavian Literature. (4) Seminar, three hours. Readings and discussion of representative texts selected from literature of mediæval, Renaissance, baroque, and Enlightenment periods. P/NP or letter grading.

154. Romanticism. (4) Seminar, three hours. Exploration of Romanticism in Scandinavian literature. Reading and discussion of different approaches to Romanticism and analysis of works of prominent Scandinavian writers from Romantic period to understand Scandinavian Romanticism in larger European context, including work from both English and German Romantic writers and artists. P/NP or letter grading.


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.

CM144A. Voices of Women in Nordic Literature. (4) (Same as Gender Studies M183B.) Seminar, three hours. Requisite: course 105B or 106B or 107B. Knowledge of Scandinavian languages not required for nonmajors. Readings and discussion of writings by Sofie Hagelin, Sigríður Einar Jónsdóttir, and Jonas Hassen Khemiri. P/NP or letter grading.
Films from other cultures? How do we see changing in Scandinavia differ from their representations in How do representations of Vikings in films produced What have Vikings come to signify in modern era and exploration of representations of Vikings in medium of Dreyer’s own writings on cinema. All films have En- chers such as David Bordwell, Ray Carney, Paul Josef Fares. Development of Scandinavian high art cinema and popular genres such as rural romanti- cism, women, crime, and horror. All films have English subtitles. Concurrently scheduled with course C263C. P/NP or letter grading.

C171A. Introduction to Scandinavian Folklore. (4) Seminar, three hours. Introduction to fairy tales and legends of Scandinavian tradition as well as to inter- pretive methodologies that strive to answer question why do people tell stories that they tell? Concurrently scheduled with course C271. Letter grading.

172A. Nordic Folk and Fairy Tales. (4) Seminar, three hours. Exploration of Nordic version of classic tale-types such as Dragon Slayer, Cinderella, Hansel and Gretel, and King Lindorm in historic and cultural contexts. Three hours. Concurrently scheduled with course C272. Letter grading.

173A. Popular Culture in Scandinavia. (4) Seminar, three hours. Examination of popular culture in Scandi- navia through study of contemporary Scandinavian culture, film, music, and art. Investigation of how is- sues such as globalization, immigration, and nation- alism are portrayed in popular culture in Denmark, Norway, Sweden, Finland, and Iceland. Discussion of how and why human condition is interpreted through study of cultural expressions and how it is possible— taking literature, film, and art as point of departure— to analyze cultural, historical, and political expression in given periods. Three hours. Concurrently scheduled with course C263B. P/NP or letter grading.

174A. Minorities in the Scandinavian Community. (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 Pak- istan began immigrating to Nordic countries, followed in subsequent decades by immigrants and refugees, from Vietnam, India, Iran, Iraq, Afghanistan, Cam- bodia, and countries throughout Africa. Cultural land- scapes have been profoundly shaped by 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 emer- gence of new forms of Nordic languages, such as well-documented phenomenon of Finno-Swedish, concurrently scheduled with course C274A. P/NP or letter grading.

174B. Queer Scandinavia. (4) Seminar, three hours. Queer themes in Scandinavian literature, mainly from 19th century to present. How do the writings have had more progressive view on homosexuality than most other countries, and Scandinavian viewers per- trayed homosexuality in explicit and radical ways as early as the 1960s? Focus on key theo- retical works within field of gay and lesbian studies and queer studies, as well as presentation of histor- ical 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 examine various aspects of Sami language and culture. Three hours. Concurrently scheduled with course C275. 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 contempo- rary literature as well as historical and/or socio- logical material. May be repeated for credit (as deter- mined by undergraduate advisor) with topic change. May be concurrently scheduled with course C280. P/NP or letter grading.
C241A. Theory of Scandinavian Novel. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Analysis of predominant structures of Scandinavian novel from its 18th-century beginnings through its rise in 19th century and its 20th-century evolution. Discussion of application of contemporary critical theories to novels. May be concurrently scheduled with course C141A. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

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.

C245B. Knut Hamsun. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. 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 C145B. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C246A. August Strindberg. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. 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. Sören 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. Introduction to history of cinema in Denmark, as well as to some fundamental concepts in study of film. Deliberately broad and historically centered approach to development of film in Denmark—rather than focus on films of particular directors or topics. Theoretical readings from important critics, including Kracauer, Bazin, Metz, and Chatman, along with several selected extracts, to develop vocabulary and critical mind for discussing films in general and Danish cinema in particular. Other readings include selections from Hjort, Sandberg, Tangerlini, and other Scandinavian, French, and German film critics. Concurrently scheduled with course C147B. S/U or letter grading.

C264. Introduction to Norwegian Cinema. (4) Lecture, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present. Filmmakers include Tancred Ibsen, Arne Skouen, Edith Catrin, Niels Gaup, Erik Skjoldbjargs, Bent Hamer, Khalid Husain, and Roger Spottiswoode. Focus on filmmakers whose work has been most influential in development of modern cinema in Norway. May be concurrently scheduled with course C166C. S/U or letter grading.

C265. Seminar: Scandinavian Literature. (4) Seminar, three hours. Preparation: reading knowledge of a Scandinavian language. Selected topics in Scandinavian literary history. Works selected for their importance in the development of specific authors, movements, or periods in literary history. 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 C186. 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 between 1919 and 1964. Contextualization of silent and sound works of this most personal of filmmakers within multiple frameworks: Danish national film industry, transnational European cinema, and issues of auteur filmmaking. Writings by key Dreyer scholars such as David Bordwell, Ray Carney, Paul Schrader, Mark Sandberg, and others, as well as Dreyer's own writings. All films have English subtitles or subtitles. Concurrently scheduled with course C166C. S/U or letter grading.

C271. Introduction to Scandinavian Folklore. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Introduction to fairy tales and legends of Scandinavian tradition as 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.

C271. Study of Oral Tradition: History and Methods. (4) (Same as English M205A) Seminar, three hours. Exploration of scholarly and literary attempts to study oral tradition, definition of appropriate oral traditions, from Homer and ancient Greece to origins of vernacular literatures, European romantic re/discovery of oral tradition, 20th-century heuristic models of oral composition, and modern-day electronic media and popular verbal genres, such as jarring and rapping. S/U or letter grading.

C272. Collecting Oral Tradition. (4) (Same as English M205B) Seminar, three hours. Preparation: reading knowledge of a modern Scandinavian language. Description and evaluation of various modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural event. Consideration of approaches ranging from written transcription and textualization to audio and video presentation. S/U or letter grading.

C273. Studies in Oral Traditional Genres. (4) (Same as English M205C) Seminar, three hours. Exploration in depth of variety and history of, and scholarship on, a particular oral traditional genre (e.g., ballad, song, epic, verbal, riddle, folktale, 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 immigrant cultures in Nordic region. Beginning in 1960s, large numbers of people from Turkey, Italy, and Pakistani and Afghan immigrant to Nordic countries. Followed in subsequent decades by immigrants and refugees from Vietnam, India, Iran, Iraq, Afghanistan, Cambodia, and countries throughout Africa. Cultural landscape previously marked by relatively high degree of cultural homogeneity now characterized by broad cultural diversity. Examination of emergence of new voices in Nordic cultural landscape in wide range of cultural expressive media, including literature, film, and visual and performing arts. Exploration of emergence of new forms of Nordic languages, such as well-documented phenomenon of Rinkeby Swedish, and well-documented phenomenon of Ritey by Norwegian. Concurrently scheduled with course C174A. S/U or letter grading.

C275. Introduction to Sami Language and Culture. (4) Lecture, three hours. Use of traditionally arranged, structurally graduated readings, conversation topics, individual and group assignments, and journal writing to provide systematic overview of linguistic characteristics of Estonian 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 students. Discussion of selected aspects of Scandinavian society based on readings of contemporary literature and cultural studies in their social and professional milieu, interacting with native speakers, or taking formal courses at intermediate level. Concurrently scheduled with course C145A. Graduate students may meet for extra seminar hours and write research papers of greater length and depth. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel 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 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 requirements. May be repeated twice. S/U or letter grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examination. (0 to 8) Tutorial, to be arranged with faculty member who directs the study or research. May be repeated once. May not be applied toward MA minimum course requirement, but only 4 units may be applied toward minimum requirement. S/U grading.

599. Research for and Preparation of PhD Dissertation. (4) Tutorial, to be arranged with faculty member who directs the study or research. May be repeated. S/U grading.
Scope and Objectives

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 14A, 14B, 14BL, 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 filing 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 C113 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, C125, 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

10SL. 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 children, and cognitive ability of elementary-age children as it relates to introduction of concepts, curricular planning, classroom management, and learning assessment. P/NP grading.

105SL. Classroom Practices in Middle School Science. (2) Seminar, 90 minutes; fieldwork, three hours. Recommended prerequisite: course 10SL. Introduction for prospective science teachers to field of secondary education and teaching and learning of science 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 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 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.

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.
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 of more years of study (level 1 on the American Council on Teaching of Foreign Languages—ACTFL—scale). Students interested in this program should consult with the undergraduate adviser as early as possible.

The major in Russian Studies is designed for students who wish to complement mastery of the language with an array of courses on Russian history, politics, literature, and culture. The major in Central and East European Languages and Cultures is designed to provide students with a mastery of two languages of central or eastern Europe and familiarity with the literature, as well as general background in the cultural, political, and social history of the Slavic peoples.

The graduate program provides advanced training in Slavic literatures and linguistics leading to the MA and PhD degrees in Slavic, East European, and Eurasian Languages and Cultures. The primary task of the department faculty is to develop and refine the critical and analytic skills of its students in preparation for productive careers in college teaching and research in the Slavic field. Alternative careers include language teaching, business, translation, interpreting, librarianship, and government service.

Undergraduate Study

The department offers three majors: (1) Central and East European Languages and Cultures, (2) Russian Language and Literature, and (3) Russian Studies. The equivalent of a major in Central and East European Languages and Cultures or Russian Language and Literature is normally required for admission to the department graduate program and is used to determine the number of courses in Russian literature and/or linguistics that students majoring in Russian Studies are expected to make up in order to receive graduate degrees in the department. Students not majoring in Central and East European Languages and Cultures or Russian Language and Literature who intend to pursue graduate study in the department are strongly encouraged to take courses in Russian literature and linguistics during their undergraduate years to reduce the number of makeup courses required. Qualified seniors may also take graduate courses numbered below 220 with consent of the instructor and the graduate and undergraduate advisers.

The three majors offered in the department are designated capstone majors. Students majoring in Central and East European Languages and Cultures, Russian Language and Literature, and Russian Studies must complete a capstone seminar and present their final paper in the department annual Undergraduate Research Conference. Students draw on their previously acquired subject matter knowledge and skills to plan a research project and write a substantial academic paper. They also gain experience engaging in scholarly discourse, preparing appropriate media for public presentation, and submitting their work to an academic journal.

Central and East European Languages and Cultures BA 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

Required: (1) One three-quarter (12 to 15 units) introductory central and east European language sequence to be selected from Czech 101A, 101B, 101C, Polish 101A, 101B, 101C, Romanian 101A, 101B, 101C, or Ukrainian 101A, 101B, 101C; (2) one three-quarter (12 to 15 units) language sequence to be selected from Czech 102A, 102B, 102C, Hungarian 102A, 102B, 102C, Polish 102A, 102B, 102C, Romanian 102A, 102B, 102C, Serbian/Croatian 102A, 102B, 102C, or Ukrainian 102A, 102B, 102C, or any three courses from Russian 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C, 103A, 103B, 103C, 130A, 140A; (3) one three-quarter (12 to 15 units) introductory language sequence of a second Slavic or central European language, or equivalent proficiency as determined through departmental testing, to be selected from Czech 101A, 101B, 101C, Hungarian 101A, 101B, 101C, Polish 101A, 101B, 101C, Romanian 101A, 101B, 101C, Serbian/Croatian 101A, 101B, 101C, or Ukrainian 101A, 101B, 101C; (4) three courses (12 units) from the following list (187 courses are 2 units each; no more than 8 units may be from the 187 series); Central and East European Studies 125, 126, Czech 155, 187A through 187M, History 120A through 120D, Hungarian 187A through 187M, Polish 152A, 152B, 152C, 187A through 187M, Russian 124A, 124B, 124C, 187A through 187M, Ukrainian 152, 187A through 187M; one of the three courses may be selected from Russian M118, 119, 120, 124A, 124D, 124N, 124T.

During their senior year, students must also take Slavic 191TA, 191TB, and 191TC in which they complete a capstone senior thesis. Students may petition to substitute courses after consulting with the undergraduate adviser. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Russian Language and Literature BA 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


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


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.

Honors Program

The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis.

Admission

The honors program is open to departmental majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year. 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.

Honors 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 departmental 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 eastern European language sequence to be selected from Czech 101A, 101B, 101C, Hungarian 101A, 101B, 101C, Polish 101A, 101B, 101C, Romanian 101A, 101B, 101C, Serbian/Croatian 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 124G, Serbian/Croatian 154, or Ukrainian 152; (3) 12 units of second-year or higher-level language courses to be selected from Czech 102A, 102B, 102C, 187A through 187M, Hungarian 102A, 102B, 102C, 187A through 187M, Polish 102A, 102B, 102C, 187A through 187M, Romanian 102A, 102B, 102C, 187A through 187M, Serbian/Croatian 102A, 102B, 102C, 187A through 187M, Ukrainian 102A, 102B, 102C, 187A through 187M (187 courses are 2 units each) OR three courses dealing directly with any central and east European culture to be selected from Central and East European Studies 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.

Russian Literature Minor
To enter the Russian Literature minor, students must have an overall grade-point average of 2.0 or better. Required Lower-Division Courses (9 to 17 units): Russian 3 or 10 or equivalent proficiency, one course from 25, 25W, 30, 31, 32, 90A, 90B, or 90BW. Required Upper-Division Courses (20 units): Five Russian language and literature courses, including at least two from Russian M11B, 119, 120, 130A, 130B, 130C, 140A through 140D. Students may petition to substitute courses after consulting with the undergraduate adviser. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Russian Studies Minor
To enter the Russian Studies minor, students must have an overall grade-point average of 2.0 or better. Required Lower-Division Courses (9 to 17 units): Russian 3 or 10 or equivalent proficiency, one course from 25, 25W, 30, 31, 32, 90A, 90B, or 90BW. Required Upper-Division Courses (20 units): Five courses in Russian-related fields, with a minimum of three courses selected from History M127A through 127D, Political Science 128A, 128B, 156A. Students may petition to substitute courses after consulting with the undergraduate adviser. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

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

Graduate Degrees
The Department of Slavic, East European, and Eurasian Languages and Cultures offers Masters 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 illustrating 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-Herzegovina, 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). Sensitizes students to complexities of issues in region and helps them better understand multiplicity of causes of present situation. Interdisciplinary study, drawing on sociological, women’s studies, and political science perspectives. Short fiction by women writers for analysis. Discussion and debating of topics covered in articles, different positions taken by authors, and way in which these realities are rendered in fictional form by women writers from region. P/NP or letter grading.

125. Intervar Central European Prose. (For- merly numbered Slavic 125.) Lecture, three hours. Analysis of selected novels, stories, plays, and essays of representative authors of 1920s and 1930s in translation. Special attention to relation between literature and historical and ethnic concerns. P/NP or letter grading.

126. Coldwar Central European Culture. (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 Polich, 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/NP or letter grading.

189. Advanced Honors Seminars. (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. (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. Contract: 10 hours per week per unit. Entry-level research for lower-division students. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP 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 compo- nent 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.

102A-102B-102C. Advanced Czech. (4–4–4) Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/NP or letter grading.


155. Survey of Czech Literature from Middle Ages to Present. (4 lecture, three hours. Lectures and readings in English. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Czech. (2 Tutorial, one hour; laboratory, one hour. Enforced requisi- tute: 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/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Czech. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior 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/NP or letter grading.

189HC. Honors Contracts. (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. Contract: 10 hours per week per unit. Entry-level research for lower-division students. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

191. Variable Topics Research Seminars: Central and East European Studies. (4) Seminar, three hours. Study and discussion of specialized topics and approaches in Central and East European Languages and Cultures. May be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and preliminary orientations many paths of discovery at UCLA. P/NP or letter grading.

89. Honors Seminars. (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. (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. Contract: 10 hours per week per unit. Entry-level research for lower-division students. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Upper-Division Courses

101A-101B-101C. Elementary Hungarian. (4–4–4) Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/NP or letter grading.

121. Survey of Hungarian Literature in Translation. (4 Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Introduction to Grammar, instruction in listening, reading, and writing. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Hungarian. (2 Tutorial, one hour; laboratory, one hour. Preparation: two years of Hungarian and/or Hungarian place- ment 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/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Hungarian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior 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/NP or letter grading.

189. Honors Seminars. (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. (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. Contract: 10 hours per week per unit. Entry-level research for lower-division students. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP 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. 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.
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 and led by lecture course instructor. May be applied toward honors credit for eligible students. 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. From the Middle Ages to Neoclassicism; 152B, Remaking a Nation. Readings in 19th-century Polish literature and culture. 152C, Dreaming, Mocking, and Writing “as it.” Readings in modern Polish literature and culture.

180. Introduction to Romanian Civilization. (4) Lecture, three hours. Introductory survey of social and cultural institutions of Romanian people and their historical backgound. 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, five hours. 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. 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.

99. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. 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. From the Middle Ages to Neoclassicism; 152B, Remaking a Nation. Readings in 19th-century Polish literature and culture. 152C, Dreaming, Mocking, and Writing “as it.” Readings in modern Polish literature and culture.

180. Introduction to Romanian Civilization. (4) Lecture, three hours. Introductory survey of social and cultural institutions of Romanian people and their historical backgound. P/NP or letter grading.

99. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

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.

Upper-Division Courses

101A-101B-101C. Elementary Romanian. (5–5–5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Basic courses in Romanian language. P/NP or letter grading.

102A-102B-102C. Advanced Romanian. (5–5–5) Lecture, five hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Russian. (2) Tutorial, one hour; laboratory, one hour. Preparation: two years of Russian and/or Russian placement test. Tutorial and guided independent study of advanced Russian; advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Russian. (2 each) Tutorial, five hours. Preparation: prior course in sequence or Russian placement test. Tutorial and guided independent study of advanced Russian; advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. 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 and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

99. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. 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 and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

Upper-Division Courses

101A-101B-101C. Elementary Romanian. (5–5–5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Basic courses in Romanian language. P/NP or letter grading.

102A-102B-102C. Advanced Romanian. (5–5–5) Lecture, five hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Russian. (2) Tutorial, one hour; laboratory, one hour. Preparation: two years of Russian and/or Russian placement test. Tutorial and guided independent study of advanced Russian; advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Russian. (2 each) Tutorial, five hours. Preparation: prior course in sequence or Russian placement test. Tutorial and guided independent study of advanced Russian; advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. 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 and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

Theory and Practice
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, P/NP 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 Room. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Intensive Intermediate Russian. (12) Lecture, 19 hours. Intensive intermediate course in reading, writing, and speaking Russian equivalent to courses 4, 5, 6, P/NP or letter grading.

25. Great Russian Novel. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 25W. Designed for nonmajors. Knowledge of Russian not required. Study of major works by great 19th-century Russian novelists. P/NP or letter grading.

25W. Great Russian Novel. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Lan-
guage 36. Not open for credit to students with credit for course 25. Designed for nonmajors. Knowledge of Russian not required. Study of major works by great 19th-century Russian novelists. Satisfies Writing II re-

20. 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, two hours. Key works, names, events, and concepts of Russian cinematic tradition. Development of skills in analyzing and interpreting films and acquisition of critical perspective of film studies. How film form and aesthetics are conditioned by technology, ideology, economics, theory, tradition, and culture. How the cinema in Russia has created and contested narratives of his-
tory and identity, how cinema has served interests of state, and how it has defied them. P/NP or letter grading.

32. Russia and Asia: Cultural Dialogues. (5) Lecture, three hours; discussion, one hour. Since end of Soviet Union, Russian culture has exploded onto the world stage. Repeatedly and violently. Given radical rejection of Russian heritage in most former Soviet territories, key distinctions in humanities have become blurred, including funda-
mental confusion between limits of Slavic and Near Eastern studies. Examination of relation of Russia’s culture to its borders: Caucasus, Central Asia, China, Japan, 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 4 units. Individual honors contract re-
quired. Honors content noted on transcript. Letter grading.

100A-100B-100C. Literacy in Russian. (4–4–4) Lecture, three hours. Course 100A of 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) 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 101C. Intensive grammar, reading, and conversation, with strong multimedia component. P/NP or letter grading.

102A-102B-102C. Topics in Advanced/Superior Russian. (4–4–4) Lecture, three hours. Enforced requisite: course 101C or Russian placement test. Course 102A or Russian placement test is enforced requisite to 102B; course 102B or Russian placement test is enforced requisite to 102C. Discussion and composition 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 inde-
pendently and may be repeated for credit. P/NP or letter grading.

103A-103B-103C. Russian for Native and Near-Na-
tive Speakers. (4–4–4) Lecture, three hours. Course 103A is not required to 103B, which is not required to 103C. Improvement of oral and written language skills, emphasizing correct and diversified use of lan-
guage and addressing individual grammatical difficul-
ties. May be repeated for credit with topic and/or in-
structor change. P/NP or letter grading. 103A. Rus-

107A-107B-107C. Russian for Social and Cultural Studies. (4–4–4) Lecture, three hours. Recommended preparation: third-year Russian. Lectures and read-
ings in Russian. Explores Russia’s role in so-

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 vocabulary, vocabulary structures and expansion of lexical repertoire. Emphasis on formal interpersonal and presentational modes. Letter grading.

C124N. 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 C227T. P/NP or letter grading.

C124P. Studies in Russian Literature: Pushkin. (4) (Formerly numbered 124P) Lecture, three hours. Lectures and readings in English. Major works in all genres, including long poems, plays, prose fiction, and selected letters. Concurrently scheduled with course C224P. P/NP or letter grading.


C127. Women in Russian Literature. (4) (Same as Gender Studies M127.) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Emphasis on female characters in Russian literature of all genres and subgenres. P/NP or letter grading.


C129. Animation and Music Video. (5) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Lectures and readings in English. Humanities have recently passed into the era of so-called visual turn: traditional emphases on language(s) in field have been reconsidered in light of society’s increasingly visual workings. New attitude toward our own changing culture and how it functions in society today. P/NP or letter grading.

C130A-130B-130C. Russian Poetry. (4–4–4) Lecture, three hours. Preparation: third-year Russian recommended. Lectures and readings in Russian. May be repeated for credit with topic change. P/NP or letter grading.

C130D. Russian Folk Literature. (4) (Same as Comparative Literature M130D) Lecture, three hours. Preparation: prior course in Russian language and literature required. May be repeated for credit with topic change. P/NP or letter grading.

C140A-140D. Russian Prose Fiction. (4 each) Lecture, three hours. Preparation: third-year Russian recommended. Lectures and readings in Russian. May be repeated for credit with topic change. P/NP or letter grading.

C187A. Advanced Tutorial Instruction in Russian. (2) Tutorial, one hour; laboratory, one hour. Enforced requisite: course 120C or Russian placement test. Tuto- rial and guided independent study of advanced Russian. This tutorial is intended for undergraduate or graduate students who want to explore topics in greater depth through supplemental readings, papers, or other activities and are instructed by lecture course instructor. May be repeated for credit with topic change. P/NP or letter grading.

C187B–187M. Advanced Tutorial Instruction in Russian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Russian placement test. Tutorial and guided independent study of advanced Russian. This tutorial is intended for undergraduate or graduate students who want to explore topics in greater depth through supplemental readings, papers, or other activities and are instructed by lecture course instructor. May be repeated for credit with topic change. P/NP or letter grading.

C191. Variable Topics Research Seminars: Russian Literature. (4) Seminar, three hours. Preparation: enrollment limited to 20 students. May be repeated for credit with topic change. P/NP or letter grading.

211A. Literature of Medieval Rus’. (4) Lecture, three hours. Required for MA (literature). Survey of the literature from its beginning through the Kievan and Muscovite periods up to the end of the 17th century.

211B. 18th-Century Russian Literature. (4) Lecture, three hours. Required for MA (literature). Lectures and readings in major and secondary authors. Analysis of related literary works.

212A-212B. 19th-Century Russian Literature. (4-4) Lecture, three hours. S/U or letter grading.


213A. 20th-Century Russian Literature, 1899 to 1929. (4) Lecture, three hours. Required for MA (literature). Lectures and readings in major literary trends of modernist period, such as decadence, symbolism, futurism, acmeism, and ornamental school. Analysis of representative works by Blok, Bely, Khlebnikov, Pasternak, Platonov, and others. S/U or letter grading.


C224D. Studies in Russian Literature: Dostoevsky. (4) Lecture, three hours. Lectures and readings in English. In-depth study of major fictional works such as Crime and Punishment, Notes from the Underground, and The Brothers Karamazov. Concurrently scheduled with course C212D. S/U or letter grading.


C224T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in English. Early and late stories and novellas, excerpts from the diaries and one major novel such as War and Peace or Anna Karenina. Concurrently scheduled with course C212T. 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. Intro- duction to technical study of Russian poetics and ver- sification, 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, and 212C. Advanced study of major works from late Romanticism to 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 the post-war generation to 1989. 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. Requisites: courses 211B, 212A, 212B, 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. Simultaneous 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 se- lected topics in history of Russian culture.

Slavic, East European, and Eurasian Languages and Cultures / 677

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, or other activities and 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- dividual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

Slavic Lower-Division Courses

5. Introduction to Eurasia. (3) Lecture, three hours; discussion, one hour (when scheduled). Interdisci- plinary survey of Eurasia. Introduction to history, cul- ture, 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: A Generation of the 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

101A-101B-101C. Elementary Serbian/Croatian. (5-5-5) Lecture, five hours. Course 101A is recom- mended preparation for 101C. Each course may be waived with consent of instructor. Basic courses in Serbian/Croatian. P/NP or letter grading.

102A-102B-102C. Advanced Serbian/Croatian. (4- 4-4) Lecture, three hours. Recommended prepara- tion: course 101C (may be waived with consent of in- structor). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of in- structor. P/NP or letter grading.


154. South Slavic Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of South Slavic literature from Middle Ages to the present. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Serbian/ Croatian. (2 Tutorial, one hour; laboratory, one hour. Enforced requisite: course 102C or Serbian/Croatian placement test. Tutorial and graded 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 graded independent study of advanced Serbian/Croa- tian: advanced conversation, composition, vocabula- tory 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 stu- dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1 Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to upper-division lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.
MA0. Christianity East and West. (5) (Same as Religion MA40.) 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, and religious practices have developed into the three traditions. P/NP or letter grading.

87. Languages of Los Angeles. (5) Lecture, three hours; discussion, one hour. Comprehensive interdisciplinary study of Los Angeles as a multicultural and multilingual city. Analysis of features of major linguistic communities in Los Angeles area (Armenian, Cantonese, Japanese, Korean, Mandarin, Russian, Spanish, and others), with particular attention to social and cultural factors that play a role in the maintenance of language used in any given ethnic group. Familiarization with discipline and methodology of urban linguistics as part of urban geography and as a 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 students. Designed as an introduction to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an introduction to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191H. Senior Honors Thesis in Slavic Languages and Literatures. (4) Seminar, three hours. Limited to senior departmental majors. Planning and development of senior honors capstone thesis. Introduction to research methods and presentation skills; use of student target language for research required. Verbal and written presentations required. P/NP or letter grading.

191TA. Senior Capstone Thesis in Slavic Languages and Literatures. (2) (Formerly numbered 191T) Seminar, three hours. Limited to senior departmental majors. Planning and completion of senior capstone thesis. Introduction to research methods and presentation skills; use of student target language for research required. Verbal and written presentations required. Letter grading.

191TB-191TC. Senior Capstone Thesis in Slavic Languages and Literatures. (2 to 4) Seminar, three hours. Course 191TA is enforced requisite to 191TB, which is enforced requisite to 191TC. Limited to senior departmental majors. Editing and completion of senior capstone thesis. Use of student target language for research required. Letter grading.

197. Individual Studies in Slavic Languages and Literatures. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings on at least a biweekly basis, 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 Slavic Languages and Literatures. (2 to 4) Seminar, three hours. Course 198A is requisite to 198B. Limited to senior departmental honors program students. Development and completion of honors thesis under direct supervision of faculty member. Individual contract required. Letter grading.

199. Directed Research in Slavic Languages and Literatures. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culumminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

200A. Literary Proseminar. (4) Seminar, three hours. Required for MA (literature). Designed to prepare in-coming graduate students for scholarly work by introducing them to research methods, pedagogical grammar, and current research in Slavic countries. Required preparation: upper-division courses in Russian literature and introduction to pedagogical grammar. 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. 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.

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 re- peated for credit with topic change. Currently scheduled with course C180. S/U or letter grading.

SOCIAL SCIENCE

Interdepartmental Program / College of Letters and Science

2500 Public Affairs Building
Box 957174
Los Angeles, CA 90095-7174

Social Science

310-825-3565
Juliet A. Williams, PhD, Chair

Faculty Committee
Terrance J. Smolen, PhD (Political Science)
Tim J. Groeling, PhD (Communication)
Marcus A. Hunter, PhD (African American Studies, Sociology)
Tamar Kramer-Sadlik, PhD (Anthropology)
PJ Lamberson, PhD (Communication)
Davide Panagia, PhD (Political Science)
Michael E. Shin, PhD (Geography)
James W. Stigler, PhD (Anthropology, Psychology)
Juliet A. Williams, PhD (Gender Studies)

Min Zhou, PhD (Asian American Studies, Sociology)

Scope and Objectives

The Division of Social Sciences is home to leading researchers working to advance understand- ing of human societies around the globe. With over 250 faculty members housed in more than 15 departments and programs, the division encourages students to explore di- verse perspectives and approaches to the study of social life.

The Social Science Interdepartmental Program offers the Master of Social Science (MSS) self- supporting degree. Drawing from current theo- ries, methods, and professional practices from across the social sciences, students develop proficiency with qualitative and quantitative research methods used to address complex so- cial problems. The intensive one-year curricu- lum emphasizes creative problem-solving and collaborative research practices. Graduates will be prepared for academic and professional careers.

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 Social Science Interdepartmental Program offers a self-supporting Master of Social Sci- ence (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 (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

188. Academic Innovation in Industry. (1) Lecture, one hour (six weeks). Exploration of how to apply dis- ciplinary knowledge to industry problems and tech- nology trends. Students build skills to enable them to create novel ways of meeting challenges, build net- work intelligence, and communicate their ideas and expertise. Students also learn problem-solving tech- niques like lean startup approach. Uses case study approach to show how social scientists have con- nected with recent technology trends to produce im- pactful innovation. P/NP grading.

Graduate Courses

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.

400A-400B. Social Science Research and Per- spectives. (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 de- velopment of multidisciplinary, integrative approaches to social science research. Students learn how to identify and frame social problems; how to identify, in- terpret, and evaluate relevant research; and how to synthesize research findings generated from different theoretical, methodological, and disciplinary ap- proaches. Development of essential research, writing, and analytic skills. Letter grading.

401. Qualitative Social Science Research Meth- ods. (4) Seminar, three hours. Introduction to range of qualitative approaches used in social science re- search and analysis through combination of theoret- ical discussions and practical experience. Examina- tion of practical and epistemological issues in qualita- tive research in workshop format. Covers practical writings of qualitative research; gathering data through interviews, focus groups, observation, ques- tionnaires, and archival research; strategies for re- cording, coding; and analyzing qualitative data; and evaluating and presenting qualitative research, Pre-
pares students to undertake research using qualitative methods through collaborative class research project. Letter grading.

402. Qualitative Data Analysis in Social Science. (4) Lecture, two and one half hours; discussion, one hour. Introduction to fundamentals of data analysis and statistics, focusing on application of statistical methods in social problems research. Students develop skills and strategies for evaluating research evidence, and for comparing and synthesizing results of studies that adopt different research methodologies. Descriptive statistics, inferential statistics, probability, statistical tests, correlation, and causation, and regression analysis. Other topics include organizing quantitative data (e.g., tables, graphs), methods for describing data with respect to central tendency, dispersion, and association. At course end students should be able to perform data analysis using appropriate software, to interpret results, and to make critical evaluations of quantitative social science research. Letter grading.

403. Quantitative Evidence and Analysis in Social Science. (4) Seminar, three hours. Exploration of theory and practice of engaged social science, tracing its historical development from many paths of discovery at UCLA. Letter grading.

410. Engaged Social Science. (4) Seminar, three hours. Exploration of theory and practice of engaged social science, tracing its historical development from policy studies and related fields to more activist modalities of critique and intervention. Drawing on classic and contemporary studies in sociology, anthropology, political science, environmental studies, and social justice, to engage students in larger debates about politics of knowledge in relation to issues, such as poverty, racism, public health, refugees, gang culture, gender hierarchies, public education, and citizenship. Letter grading.

420. Research Design and Analysis. (4) Seminar, three hours. Guided completion of major research paper (MRP). Students receive detailed feedback from instructor, revise literature review, finalize analysis, tighten rhetoric, and improve organization of manuscript to transform it into final research paper. Letter grading.

**SOCIAL THOUGHT**

Interdisciplinary Minor
College of Letters and Science

A316 Murphy Hall
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Los Angeles, CA 90095-1430

Social Thought
310-206-2792
E-mail contact

Jeffrey Prager, PhD, Chair

Faculty Committee
Stefan Bargheer, PhD (Sociology)
Barbara Herman, MA (American Studies, Philosophy)
Russell Jacoby, PhD (History)
Jeffrey Prager, PhD (Sociology)
Melvin L. Rogers, PhD (African 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 centuries. 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, 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, two hours. Corequisite for course 190A: 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 or lecture course. Individual contract required; consult Undergraduate Research Center. 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 190A; for 190B: course 199B. Limited to juniors/seniors. Required of students in Social Thought minor. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.
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

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

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics 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, 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 are required to present their work 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. 1. 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 population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging in multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) Same as Gerontology M104D.) Lecture, four hours. Examination of theoretical models and concepts of policy process, with application to aging policy. Analysis of decision-making processes that affect aging policy. Description of history of contemporary aging policy, exploration of current policy issues affecting elderly. P/NP or letter grading.

M104E. Social Aspects of Aging. (4) Same as Gerontology 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.

105. Social Welfare Policy in Modern America: Historical Perspectives. (4) Lecture, three hours; outside study, nine hours. Historical overview of American social policy dealing with three core societal problems: poverty, sickness, and joblessness. Programs developed to ameliorate these problems have typically been public insurance programs or cash transfers such as unemployment insurance, welfare, and Social Security. Collectively these programs are known as the "welfare state"; examination of origins of the U.S. welfare state, its development over time, and features that make it distinctive as compared to welfare states in other nations. Letter grading.
5. Community Research and Services Seminars. (4) Seminar, three hours. Limited to juniors/seniors. Students meet on regular basis with instructor and a UCLA faculty member. P/NP or letter grading.

6. Directed Research in Social Welfare. (2 or 4) Seminar, three hours. Limited to juniors/seniors. In field practicum where they apply tutoring techniques as they assist middle school children living in impoverished areas of Los Angeles County. In Progress (130A) and/or letter grading.

6. Poverty, Nonprofit Sector, State and Civil Society. (4) Seminar, three hours. Limited to juniors/seniors. Course 130A is requisite to 130B. Limited to juniors/seniors. History and roles of social welfare policy within government, to sharia, religion, and poverty and equality activism. Focus on role of government to social movements, that seek to intervene in such problems. Study of problems, programs, policies, and politics in general interconected, transnational world, while avoiding analytical divide between global north and global south. Letter grading.

50. Public Policy and the Public Interest. (4) Seminar, four hours. Limited to juniors/seniors. Examination in depth of particular subfield of public policy. Topics may change. Letter grading.

51. Nonprofit Sector, State and Civil Society. (4) Seminar, three hours. Limited to juniors/seniors. Study of service-learning for their predicted impact, and ways of thinking about their predicted impact, cost, and political feasibility. Issues in care of persons with disabilities from fields of medicine, social work, humanistic. Introduction to information on range of interventions to reduce drug-related harm, using evidence-based interventions to increase student knowledge, skills, and expertise in determining effective interventions to reduce drug-related harm, using most up-to-date information. Letter grading.

52. Disability Policy and Services in Contemporary America. (4) Seminar, three hours. Limited to juniors/seniors. Examination of various approaches to HIV prevention, drawing on infectious disease paradigms and public health interventions 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.

6. Disability Policy and Services in Contemporary America. (4) Seminar, 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 demands on 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.

7. Child Welfare Policy in America. (4) Seminar, three hours. Limited to juniors/seniors. Examination of child welfare reform policies. Relationship between the Aid to Families With Dependent Children (AFDC) and Personal Responsibility and Work Opportunity Reconciliation Act (PROVA); and critical appraisal of recently enacted state welfare reform policies. Relationship between research knowledge about poverty and current policies, and welfare policy (FPL) and class and patterns of poverty and policy responses. P/NP or letter grading.

8. Community Internships in Social Welfare. (2 or 4) Tutorial, two hours. Limited to seniors. Supervised individual research or investigation under guidance of faculty member. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

9. Directed Research in Social Welfare. (2 or 4) Lecture, two hours. Limited to juniors/seniors. Students learn about community resources for children and families through service learning experience and work with pediatric patients and families in UCLA pediatric unit. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract required. P/NP or letter grading.

10. Child Welfare Policy in America. (4) Seminar, three hours. Limited to juniors/seniors. Examination of child welfare reform policies. Relationship between the Aid to Families With Dependent Children (AFDC) and Personal Responsibility and Work Opportunity Reconciliation Act (PROVA); and critical appraisal of recently enacted state welfare reform policies. Relationship between research knowledge about poverty and current policies, and welfare policy (FPL) and class and patterns of poverty and policy responses. P/NP or letter grading.

11. Nonprofit Sector, State and Civil Society. (4) Seminar, three hours. Limited to juniors/seniors. Study of service-learning for their predicted impact, and ways of thinking about their predicted impact, cost, and political feasibility. Issues in care of persons with disabilities from fields of medicine, social work, humanistic. Introduction to information on range of interventions to reduce drug-related harm, using evidence-based interventions to increase student knowledge, skills, and expertise in determining effective interventions to reduce drug-related harm, using most up-to-date information. Letter grading.

12. Disability Policy and Services in Contemporary America. (4) Seminar, three hours. Limited to juniors/seniors. Examination of various approaches to HIV prevention, drawing on infectious disease paradigms and public health interventions 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.

13. Child Welfare Policy in America. (4) Seminar, three hours. Limited to juniors/seniors. Examination of child welfare reform policies. Relationship between the Aid to Families With Dependent Children (AFDC) and Personal Responsibility and Work Opportunity Reconciliation Act (PROVA); and critical appraisal of recently enacted state welfare reform policies. Relationship between research knowledge about poverty and current policies, and welfare policy (FPL) and class and patterns of poverty and policy responses. P/NP or letter grading.

14. Community Internships in Social Welfare. (2 or 4) Tutorial, two hours. Limited to seniors. Supervised individual research or investigation under guidance of faculty member. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

15. Directed Research in Social Welfare. (2 or 4) Lecture, two hours. Limited to juniors/seniors. Students learn about community resources for children and families through service learning experience and work with pediatric patients and families in UCLA pediatric unit. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract required. P/NP or letter grading.
Graduate Courses

202A-202B. Dynamics of Human Behavior. (4-4) Lecture, two and one half hours. Corequisites: courses 201A, 201B. Emphasis on psychopathologies in physical, emotional, and social areas of human functioning as those problems relate to role and function of social workers. S/U or letter grading.

203A-203B-203C. Integrative Seminars. (4-4-4) Seminar, two and one half hours. Integrative courses that bring together theory and practice of social work in variety of topic areas relevant to profession. Includes identification of problem areas and populations requiring further examination. S/U or letter grading.


M206A. Homelessness: Housing and Social Service Issues. (4) (Same as Urban Planning M270.) Lecture, seminar, and field trip, 80 minutes, 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. Weighing 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, organizational, community). Continued evaluation of outcomes. Letter grading.

210C. Foundations of Social Work Practice III. (4) Lecture, two and one half hours. Corequisite: course 401C. Core concepts of social work practice in organizational, community, and policy settings. Exploration of leadership style and development of personalized group work skills. Role of macro practice in agency-based social work in advancing strategies of organizational and social change. Interface and interaction among policy decisions, community needs, and program development. How societal values influence formation, implementation, and evaluation of social welfare programs, and services. Analysis of social, economic, and political context of community practice in order to understand policy roots of economic and social injustices. Letter grading.


211B. Human Behavior in Social Environment: Theoretical Perspectives in Social Work and Social Welfare II. (4) Lecture, two and one half hours. Concerted study of racism, oppression, and social functioning covering various perspectives on roots and significance of racism and other forms of oppression in U.S. (and other societies) today. Forces contributing to initiation and maintenance of institutional oppression and inequality across social categories such as ethnicity, gender, sexuality, religion, ability, and age. Letter grading.


213A. Social Welfare Research Methods. (4) Lecture, two and one half hours. Introduction to various research methodologies, including experimental and quasi-experimental designs, survey research methods, qualitative methods, and single subject and group changes for measurement and evaluation of issues pertaining to social welfare and social science research. Students learn and practice formulating research questions, research questions, and hypotheses and methods of inquiry and research design. Measurement, sampling procedures, and basic descriptive statistics. Letter grading.

213B. Applied Statistics in Social Welfare. (4) Lecture, two and one half hours; discussion, one hour. Core prerequisite: course 213A. Design and analysis of statistical methods taught in course 213A, and designed to help students develop basic understanding of descriptive and inferential statistical approaches. Introduction to statistical reasoning corequisite: course 213A. Letter grading.

214A. Foundations of Social Welfare 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. Builds on foundations of social welfare history and policy development. Specific attention to stress as from early colonial settlements to present day. Specific events and important individuals that have influenced public policy affecting vulnerable populations, such as racial and ethnic minorities, women, children, the poor, and other diverse populations. Examination of role of social research in informing social welfare policy. Letter grading.


214B. Leadership for Social Change. (4) Lecture, two and one half hours. Overview and understanding of leadership and social policy elements for effective social change in dynamic and diverse society. Builds on foundations of social welfare history and policy development. Specific attention to stress as from early colonial settlements to present day. Specific events and important individuals that have influenced public policy affecting vulnerable populations, such as racial and ethnic minorities, women, children, the poor, and other diverse populations. Examination of role of social research in informing social welfare policy. Letter grading.

214B. Leadership for Social Change. (4) Lecture, two and one half hours. Overview and understanding of leadership and social policy elements for effective social change in dynamic and diverse society. Builds on foundations of social welfare history and policy development. Specific attention to stress as from early colonial settlements to present day. Specific events and important individuals that have influenced public policy affecting vulnerable populations, such as racial and ethnic minorities, women, children, the poor, and other diverse populations. Examination of role of social research in informing social welfare policy. Letter grading.


219A. Craft of Social Welfare Scholarship I. (4) Lecture, three hours; outside study, nine hours. Corequisite: course 229A. Limited to PhD students. Continued narrowing of student focus on one social welfare research problem, moving from understanding of evolution and context of general problem to more detailed and in-depth literature review on specific researchable question to deepen student understanding of existing knowledge on topic and consider potential 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 advisers and/or other mentors with expertise in their problem areas. Letter grading.

219B. Craft of Social Welfare Scholarship II. (4) Lecture, three hours; outside study, nine hours. S/U or letter grading.

219A. Craft of Social Welfare Scholarship I. (4) Lecture, three hours; outside study, nine hours. Corequisite: course 229A. Limited to PhD students. Continued narrowing of student focus on one social welfare research problem, moving from understanding of evolution and context of general problem to more detailed and in-depth literature review on specific researchable question to deepen student understanding of existing knowledge on topic and consider potential 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 advisers and/or other mentors with expertise in their problem areas. Letter grading.

219B. Craft of Social Welfare Scholarship II. (4) Lecture, three hours; outside study, nine hours. S/U or letter grading.

220A. Advanced Social Welfare Practice with Couples and Families. (4) Lecture, two and one half hours. Application of theories and techniques to develop frameworks for couples and family social work practice. Examples of social work practice and couples and families may include developing relationship skills for those struggling with mental illness; supportive interventions for family members of impaired or frail elders; and social work interventions for welfare recipients; individual, couple, and family interventions for victims of abuse; bereavement support groups, or interventions helping families to recover from experiences with substance abuse, domestic violence, sexual difficulties, and more. S/U or letter grading.

220B. Advanced Social Welfare Practice. (4) Lecture, two and one half hours. Application of theories and techniques to develop frameworks for couples and family social work practice. Examples of social work practice and couples and families may include developing relationship skills for those struggling with mental illness; supportive interventions for family members of impaired or frail elders; and social work interventions for welfare recipients; individual, couple, and family interventions for victims of abuse; bereavement support groups, or interventions helping families to recover from experiences with substance abuse, domestic violence, sexual difficulties, and more. S/U or letter grading.

220C. Advanced Social Welfare Practice. (4) Lecture, two and one half hours. Application of theories and techniques to develop frameworks for couples and family social work practice. Examples of social work practice and couples and families may include developing relationship skills for those struggling with mental illness; supportive interventions for family members of impaired or frail elders; and social work interventions for welfare recipients; individual, couple, and family interventions for victims of abuse; bereavement support groups, or interventions helping families to recover from experiences with substance abuse, domestic violence, sexual difficulties, and more. S/U or letter grading.

220D. Advanced Social Welfare Practice. (4) Lecture, two and one half hours. Application of theories and techniques to develop frameworks for couples and family social work practice. Examples of social work practice and couples and families may include developing relationship skills for those struggling with mental illness; supportive interventions for family members of impaired or frail elders; and social work interventions for welfare recipients; individual, couple, and family interventions for victims of abuse; bereavement support groups, or interventions helping families to recover from experiences with substance abuse, domestic violence, sexual difficulties, and more. S/U or letter grading.

220E. 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 information 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 explore specific role of social workers as change agents. S/U or letter grading.


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, critical analysis of major intervention approaches—individual, family, group, and environmental—to treating substance abuse and addiction. Specific attention to skills and self-awareness to integrate biological, psychological, and social factors in assessing and intervening with substance-using clients and target populations. Preparation of evidence-based methods around medications, as well as legal and ethical dictates of practice. Four practice skills are taught as essential for beginning social workers: assessing relevant literature, case study, taking psychiatric medications histories, understanding clients’ subjective views and meanings of medications, and monitoring medications to reduce harms. Letter grading.

231S. Advanced Social Welfare Practice: Core Concepts of Child and Adolescent Trauma. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Designed to provide students with tools necessary to organize and develop the skills base for community practice that promotes child and family well-being from social work perspective. Corequisite: required social work practicum. Designed to familiarize students with integrating and applying social work knowledge and skill set across 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: 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 practice settings. Techniques, skills, and perspectives for 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.

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 practice settings. Techniques, skills, and perspectives for 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.

249A. Advanced Social Welfare Practice: Gerontology. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of theoretical models related directly to practice with diverse populations. Research and practice techniques for multi-dimensional geriatric assessment. How to engage in collaborative treatment planning among range of life-stage problems and address impediments to intervention process. Theoretical underpinnings and most effective practice models to enable students to serve needs of older clients and their families as they adjust to late-life transitions, as well as to health and wellness problems relevant for the older adult. Client populations range from well elderly to physically frail and/or demented from diverse backgrounds. S/U or letter grading.

249B. Advanced Social Welfare Practice: Community Mapping. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Designed to familiarize students with using geographic data in community practice. Development of skill base for community practice that provides services for social work professionals to organize and plan effectively for political, economic, and social justice in communities. How to use geographic information systems (GIS) to inform community practice. S/U or letter grading.

249C. Foundations of Scientific Inquiry I, II, III. (4–4–4) Lecture. Three 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 are in contact with people and information 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 relations 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.

249D. Resilience, Risk, and Thriving among Children and Families. (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 bases that support these methods in field of social welfare. Theory, practice, and context-related major community practice approaches in context of evidence-based philosophies and progress of 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 systems 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.

241L. Resilience, Risk, and Thriving among Children and Families. (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 bases that support these methods in field of social welfare. Theory, practice, and context-related major community practice approaches in context of evidence-based philosophies and progress of development of skills to address community problems using best available data by applying course concepts to student projects. 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 tools necessary to organize and develop the skills base for community practice that promotes child and family well-being from social work perspective. Corequisite: required social work practicum. Designed to familiarize students with integrating and applying social work knowledge and skill set across 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.

231I. 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.

231H. 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 are in contact with people and information 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 relations 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.

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. Exploration of macro- and micro-levels of 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, following longest wars in U.S. history. Exploration of military service, military service-related issues (i.e., active duty, National Guard, Reserve, and veteran) along with correlative issues for family members. Examination of family life cycles and military policy and practices for families. Use of trauma-informed practice lens to focus on working with veteran community of all campaigns, as well as current military members and their families. Discussion of military and veteran policies, 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 providing self-care also addressed. S/U or letter grading.


258. Meet the Clients: Social Welfare. (2) Discussion, two hours. Designed for PhD students. Current problems in field of social welfare. Specific topics vary depending on research and educational interests and needs of class. May be repeated for credit. S/U grading.

259. Variable Topics in Statistics in Social Sciences. (4) Lecture, three hours. Limited to graduate students. Designed to provide in-depth understanding of particular topics in area of applied statistics/measurement to graduate students engaged in conducting research in broad array of fields that comprise social sciences. Letter grading.

281A-281B. Advanced Social Welfare Research: I & II (F&S) Lecture, two hours. Individual or group research projects requiring intensive examination and analysis of social problem area, directed toward development of research knowledge and techniques for social work practice. In Progress 281A, 281B) and S/U or letter (281C) grading.

285A-285B-285C. Research in Social Welfare. (4-4-4) Discussion, three hours. Review of areas of research in social workers, with special attention to design, instrument construction, data collection, data processing, data reduction, analysis, and interpretation. Designs studied include survey, panel, experimental, observational, and theory development research. S/U or letter grading.


285E. Research in Gerontology. (4) Lecture, three hours. Overview of research in aging. Development of research questions, selecting appropriate theoretical frameworks, critical literature reviews, selecting appropriate research design, identifying sampling methods. Special considerations in aging research, including sampling, questionnaire design, and recruitment methods. Letter grading. S/U or letter grading.

285F. Research in Health. (4) Lecture, three hours. Research in area of health policy and services. Discussion of readings about range of research from field. Health services research, health care delivery, health policy and 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, 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 problem formulation; research design, including experimental, comparative, and survey; sampling; statistical methods; methods of observation and techniques of data analysis. Letter grading.

286B. Advanced Research Methods. (4) Seminar, three hours. Advanced concepts underlying research methods. Continuing study of theoretical and conceptual 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 apply research skills developed in prior courses. May be repeated for credit. S/U grading.

290A-290B-290C. Seminars: Social Work. (4-4-4) Seminar, three hours; outside study, nine hours. Series of seminars dealing with trends in social work and social welfare, with focus on current social problems affecting individuals, groups, and communities and new patterns of intervention based on recent demonstrations and developments in S/U or letter (291C) grading.

290D. Criminal Justice and Mass Incarceration. (4) Lecture and one half hours. Exploration of relationships between social welfare and criminal justice system focusing on gangs, prison organization, reform, and reentry; evaluation 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, programs, and practices in contemporary and historical contexts. Focus on legal and policy issues related to 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 opportunities 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 prescription) and illegal psychoactive drugs and substances. 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.

M290I. Children with Special Healthcare Needs: Systems Perspective. (4) (Same as Community Health Sciences M420.) 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 M214.) 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 M213.) Lecture, three hours. Examination of evolution of social policy and services for mentally ill, with emphasis on political, economic, ideological, and technological factors that shape 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 M426.) 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 M213.) Lecture, three hours. Focus on political, economic, ideological, and technological factors that shape mental health, social welfare, and related policy issues. S/U or letter grading.
M290N. Public Policy for Children and Youth. (4) (Same as Public Policy M216.) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction with schools and community, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading. Letter grading.

M290P. Aging Policy, Elderly and Families. (4) (Same as Public Policy M281.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Exploration of theoretical models and concepts of policy process and application to aging policy. Analysis of decision-making processes that affect social policies. Description of historical development of contemporary policy. Exploration of current proposals and issues. Letter grading.


M290R. Law and Poor. (4) (Same as Public Policy M295 and Urban Planning M248.) 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 reform. Letter grading.

M290S. Politics, Power, and Philanthropy. (4) (Same as Public Policy M227 and Urban Planning M287.) Lecture, three hours; outside study, nine hours. Use of political economy perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal, structural, and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

290T. Juvenile Justice Policy. (4) Lecture, two and one half hours; outside study, nine hours. Designed for graduate students. Exploration of evolution of juvenile justice system in U.S. and issues that have shaped current-day practice. Role of social workers in system to be theme throughout course. Letter grading.

M290U. Community Development and Housing Policies: Roles of State, Civil Society, and Nonprofits. (4) (Same as Public Policy M243 and Urban Planning M275.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of role of U.S. housing policy and role of government agencies and community organizations. Is problem housing or economic development? Should interventions be directed toward inner city housing markets or through neighborhood strategies? What lessons can be learned from experiences of other countries? Letter grading.

M290V. Management Challenges and Tools for Nonprofit Sector. (4) (Same as Public Policy M226 and Urban Planning M286.) 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, financial management, team building, and negotiation. Use of case studies to troubleshoot critical challenges, from finance to crisis management to marketing, that nonprofit managers typically face. Letter grading.

290W. International Social Welfare. (4) Lecture, three hours; outside study, nine hours. Intended for graduate students interested in pursuing analysis of key international social welfare issues. Topics approached from perspective of globalization of social, economic, and political activities. Problems of global poverty, social injustice and inequality, and issues of racial, ethnic, and cultural diversity, with emphasis on multifaceted contributions of social work, social services, and social welfare and international social development within rich and poor countries. Acquisition of knowledge of international social welfare activities, as well as analytical skills to address and debate complex international issues. S/U or letter grading.

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.

401A-401B-401C. Practicum: Social Work. (3–3–3) Laboratory, 16 hours. Educationally directed practicum conducted in selected health, welfare, and educational facilities. Provides opportunities for students to test their theoretical knowledge and to acquire disciplined practice foundation in profession. In Progress (401A, 401B) and letter (401C) 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.

596A. Special Study and Research in Social Welfare. (2 to 8) Tutorial, to be arranged. Individual program for selected students to permit pursuit of subject in greater depth. S/U or letter grading.

596B. Special Study and Research for PhD Candidates. (2 to 12) Tutorial, to be arranged. Limited to PhD students. S/U grading.

597A. Preparation for MSW Comprehensive Examination. (2 to 8) Tutorial, to be arranged. S/U grading.

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


SOCIETY AND GENETICS, INSTITUTE FOR

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Scope and Objectives

The Human Biology and Society majors provide a rigorous interdisciplinary education in current issues at the intersection of human biology, genetics, and society where bridging the institutional divide between the life sciences and human sciences (humanities and social sciences) is necessary.

The teaching strategy emphasizes the value of synthetic, integrative thinking. Learning can best be organized synthetically around the sorts of knowledge and skills required to investigate and address such problems rather than by building up from the stepwise sequences of traditional disciplines. Preparation for the majors is centered on three areas of study that together prepare students to solve problems at the intersection of biology and society: 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 arguments
- Skills to critically analyze and evaluate qualitative and quantitative data and social biological theories
- Demonstrated proficiency in at least one area of concentration at the interface between biology and society
- Integration of ethical, legal, and societal concerns in planning, conducting, and assessing research
- Use of societal and biological information to critically assess complex real-world problems and to employ interdisciplinary skills to help solve them

Admission

Admission to the Human Biology and Society BA major is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major.

Students must apply for major standing at the beginning of spring quarter of their sophomore year. 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, 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 199; and five courses (at least one of which must be a society and genetics course) from one of the following concentration areas:


Society and Genetics, Institute for / 687
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.

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 major courses with a cumulative minimum grade-point average of 2.5.

Transfer Students

Transfer applicants to the Human Biology and Society BS major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C; one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory.

Transfer applicants must also complete at least two of the following introductory courses prior to admission to UCLA: one statistics course, one anthropology human evolution course, and two introductory social sciences or history courses. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission. Society and Genetics 5 must be taken at UCLA once a transfer student is admitted to the University.

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

The Major

Required: Life Sciences 107 (if Life Sciences 7A, 7B, 7C, and 23L are taken); Society and Genetics 102, 105A, 105B, 108; 4 units from course 195CE, 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:


evolutionary biology, and psychology and mental health.

**Historical and Social Studies of Science: Anthropology 100, 131, 143, Asian American Studies 105, Bioengineering 165EW, Disability Studies 101 or 101W, M121, Ecology and Evolutionary Biology 100, C126, 130, 175, Environmental Health Sciences 100, C185A, C185B, Epidemiology 100, Gender Studies 134, M162, M164, M180B, Geography M109, M115, Global Studies 100A, 100B, History M151C, 179A, 179B, 180A, 180C, Honors College 177, Human Genetics C144, Neurobiology M169, Philosophy 124, 125, 130, 137, 155A, 155A, 162, 175, 180, 188, 195CE, 197, 199, Sociology M138, 143, M148, 154, 156, 170. See below for additional course options in the subfocus areas of cell development, microbiology and immunology, molecular biology and genomics, physiology, and psychology and mental health.


Each course must be taken for a letter grade and passed with a grade of C– or better, and all courses must be completed with a cumulative minimum grade-point average of 2.0.

**Optional Subfocus Areas**

The subfocus options are designed and recommended for students who intend a career in medicine or allied health services or are planning to go on to graduate school in the life or health sciences. Students may select any subfocus option listed in their concentration area and complete three subfocus courses that may then be used to satisfy as many as three of the five courses required in their concentration area.

**Cell Development:** Molecular, Cell, and Developmental Biology 138, 165A, 168

**Ecology and Evolutionary Biology:** Three courses from Anthropology 124P, 124S, 128Q, 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

**Psychology and Mental Health:** Three courses from Psychology M107, 112A, 112B, M117J, 127A, 129C, 160

**Honors Program**

To receive departmental honors, students must take each course in the major for a letter grade and complete all upper-division courses in the major with an overall grade-point average of 3.5 or better. For highest departmental honors, students must also take Society and Genetics 197 or 199 in which they write a research paper in their major concentration area and receive a grade of A or better.

**Society and Genetics Minor**

Admission to the Society and Genetics minor is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Applicants must be in their junior year and have an overall grade-point average of 2.5 or better. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the minor. Students must apply for admission to the minor at the beginning of fall quarter of their junior year. No applications are considered after that.

Information about the application process is available on the [minor website](#) and by consultation with the undergraduate counselor in 3360 Life Sciences.

**Required Upper-Division Courses** (30 to 34 units): Society and Genetics 101 (or, if Life Sciences 4 or 107 has been completed, one course from the approved list of electives), 102, 191S, and at least four additional upper-division elective courses (minimum 16 units) from the approved list.


Students may petition to have a course not on the approved list applied toward the four- course elective requirement. Contact the undergraduate counselor in 3360 Life Sciences.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade of C– or better. Successful completion of the minor is indicated on the transcript and diploma.

**Society and Genetics Lower-Division Courses**

5. **Integrative Approaches to Human Biology and Society.** (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.

M71A-M71B-M71C. Biotechnology and Society. (6–6–6) Same as Clusters M71A-M71B-M71C.) Course M71A is enforced requisite to M71B, which is enforced requisite to M71C. Limited to first-year freshmen. Letter grading. M71A-M71B. Lecture, three hours; discussion, two hours. Exploration of methods, applications, and implications of biotechnology and of ethical, social, and political implications as well as biological underpinnings. M71C. Special Topics. Seminar, three hours. Enforced requisite: course M71B. Topics include in-depth examination of ethics and human genetics, bioweapons and biodefense, sex and biotechnology. Satisfies Writing II requirement.

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, 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. Intro- duction 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 di- mensions of diversity (class, gender, urban/rural de- velopment) that influence how populations vary in encounter, experience, understand, and cope with sickness. Important relationships between Western medicine and traditional and alternative ap- proaches to healing. Letter grading. 89. Honors Seminars. (1) Seminar, three hours. Lim- ited to 20 students. Designed as adjunct to lower-divi- sion lecturedesigned to sharpen techniques of topic 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 an alternative to lecture course or an indepen- dential study with lecture course instructor to explo- re 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). Inquired; consult Under- graduate Research Center. May be repeated. P/NP or letter grading. Upper-Division Courses 101. Genetic Concepts for Human Sciences. (5) Lecture, three hours; reading, one hour. Enforced requisite to credit for students with credit for Life Sciences 4. Focused treatment of selected complex genetic con- cepts from molecular biology, population and quanti- tative genetics, and evolutionary biology, with em- phasis on gene-environment interaction at various levels and culminating in exploration of notion of co- evolution of genetics and society. Basic science con- cepts prepare student for world issues and re- search problems. Current research on cancer, immu- nity system and development, and how this research is performed and adds to knowledge. Letter grading. 102. Societal and Medical Issues in Human Genet- ics. (5) Formerly numbered M102. Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts conceptions of ourselves as in- dividuals and of our place in biological universe, con- cepts of race/ethnicity and gender, ability of DNA- based forensics to identify specific individuals, own- ership and commodification of genes, issues of pri- vacy and confidentiality, issues of genetic discrimina- tion, issues of predictive genetic testing. Discussion of human behavior and reproductive purposes. Exposure to medical genetics cases. Dis- cussion of role of whole genome sequencing in clin- ical setting. Human Genome Project influence on medicine and our concepts of self and identity. Letter grading. 105A. Ways of Knowing in Life and Human Scienc- es. (4) Lecture, three hours; discussion, one hour. En- forced requisite to 105B. Course M72A is not required to 105B. Introduction to study of epistemology to train students to recognize different ways of knowing what we know. In life and human sciences, knowledge is built from observation, social studies, measure, and experiment. Exploration of how they are manifest in technologies that cut across disciplines to help students evaluate explanatory models, stan- dard and scientific methods of study and fieldwork, and transform traditional approaches to research. Explorations may include DNA sequencing, tissue cultures, bioinformatics, statistics, photog- raphy and cinema, charts, trees, and databases. DNA sequencing is used to study gene functions, evolu- tionary 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 sci- ences in administrative, commercial, and legal con- texts. Photography is used in sciences and medicine (e.g., X-ray photography), as well as in art and foren- tics. Letter grading. 105B. Problems of Identity at Biology/Society In- terface. (4) Lecture, three hours; laboratory, two hours. Requisites: course 101 or Anthropology 1, or Life Sciences 4 and 23L, or 7C (each may be taken concurrently). Course 105A is not required to 105B. Exploration of genetic origin of identity is inherently biological and social. Topics vary and may in- clude race, obesity and nutrition, autism, deafness or disability, gender, intelligence, or sexuality. Topics contain set of intertwined problems so complex, so difficult to define, and so wrapped up in conceptions of what it is to be human, that it has spawned re- search from variety of perspectives in biological and human sciences. Concepts of identity are as varied as our intellectual perspectives—some competing, some complementary—that intersect on one particular topic. Examination of how researchers from social/ his- torical and biological perspectives view and 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 collabora- tive culminating project. Group-based research proj- ects in mapping contemporary controversy at intersec- tions of human biology, genetics, and society. Reading of large amounts of material to make sense of both scientific concepts and social and polit- ical issues, with emphasis on research project and presen- tation required. 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 re- search, focus on how genomic analysis has shed new light on old debates such as migration of Homo sa- piens out of Africa, human interbreeding with Nean- dertals, first migration to North America, ethnic ex- pansions throughout Europe, and genetic legacy of historical figures such as Thomas Jefferson and Genghis Khan. Diversity and provenience of theoretical issues surrounding genetic research on history of hu- mans, including challenges of using ancient and modern DNA, population genetic theory, and ethical implications of genetic research and findings. Letter grading. 121. Race, Science, and Citizenship. (4) Seminar, three hours. Early development of scientific method and systematic exclusion of those in subordinate so- cial groups from scientific practice. Interrogation of bi- naries that prop up scientific knowledge construc- tion, and consideration of how norms and values em- bedded in Western science compare with indigenous or local knowledge systems. Research is motivated by competing assumptions of racial hier- archy and equality. Examination of governments’ use of science to classify racially inferior and contami- nated foreigners as threats to sociocultural order. Ex- ploration of how people use knowledge about their embodied experiences to demand rights and accept responsibility for their own health and vitality, either in opposition to or alliance with scientific experts. How contemporary developments in science and tech- nology bring to light some central concerns of social and political theory. Letter grading. 130. Biotechnology and Society. (4) Lecture, three hours. Technical manipulation of living matter from human beings, animals, and plants as science and understanding. How biotechnology came into existence. Questions, controversies, and changes that come with ability to make living technologies. Rise of engi- neering in American society. Biological modernism, ideas of immortality and technical suppression of death, molecularization of life, genetic engi- neering, food biotechnology, and control of reproduction. Practice and perception of living bodies as factories and machines. Changing economic and legal infrastructure of biological invention. Unfolding of contemporary social controversies concerning bio- technology. Letter grading. 131. Social and Historical Study of Information, Software, and Networks. (4) Lecture, three hours. Introduction to critical study of information tech- nology, software, and networks. Thematic focus on historical, political, and social implications of technological production. Critical study of free/open source software, standards, intellectual property, and telecommunications regulation. Theo- retical focus on publics and public spheres, network theories, and social theories of information. Partic- ular attention to relationship of information technology to scientific and engineering practices and life sci- ences. 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 in- troduction of primary field of food studies, with focus on how literature, art, science, and politics of food interact to ad- dress political dimensions of food and agriculture in specific contexts. P/NP or letter grading. M133. Environmental Sociology. (4) Same as Envi- ronment M133 and Sociology M115. Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interre- lations 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 healthy and unhealthy consumption by examination of relation- ship between food and health, from critical and holistic perspective, that accounts for interplay of bi- ological and cultural forces within human body and soci- ety and global contexts. Topics include what is meant by health, especially in terms of diet; relationship between food practices and evolutionary biology, as well as particular environments of societies, cultural sys- tems, histories, and their health implications; how major global foods have come to their dominance and consequences for health; and influences of food pro- duction, distribution, and preparation on health. Letter grading. M140. Hormones and Behavior in Humans and Other Animals. (4) (Same as Anthropology M128R and Physiological Science M140.) Lecture, three hours; discussion, one hour. Examination of hor- mones, and physiology and genetics involved in hor- monal processes and function. Interactions among hormones, genes, environment, and health; including Sexual behavior, pregnancy, and lactation, parental behavior, development and emigration, stress, social behavior, dominance relationships, aggression, chemosensory communication, and reproductive suppres- sion. Critique of primary literature on behavioral endo- crinology about humans and other species. Consider- ation of spectrum of noninvasive to highly invasive endocrine interventions. Implications for research questions can be answered in laboratory and field, as well as ethics of hormonal studies and their implica- tions for humans and other animals. Letter grading.
analyses.Introductory-level understanding of genetic methods in fieldwork and lab work, including sampling platforms, and epigenetic markers. Discussion of GWAS and genomic/next generation sequencing and comparative genomics. Utility and appropriate-ness of various markers considered for different re- search questions, e.g., mitochondrial DNA, microsat-ellite (Y-chromosome as well as Y-chromosome haplotypes, as well as GWAS and genomic next generation sequencing platforms, and epigenetic markers. Discussion of methods used in various lab work, including sam-pling techniques, collection techniques, wet lab tech-niques, software analysis packages, and statistical analyses. Introductory-level understanding of gen-etics is assumed; study further illuminates areas in molecular biology relevant to case studies analyzed. Letter grading.

M142. Primate Genetics, Ecology, and Conserva-tion. (Same as Anthropology M128S.) Seminar, three hours. Focus on primate behavior and re-sult-ates 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/phylogeneics and comparative genomics. Utility and appropriate-ness of various markers considered for different re- search questions, e.g., mitochondrial DNA, microsat-ellite (Y-chromosome as well as Y-chromosome haplotypes, as well as GWAS and genomic next generation sequencing platforms, and epigenetic markers. Discussion of methods used in various lab work, including sam-pling techniques, collection techniques, wet lab tech-niques, software analysis packages, and statistical analyses. Introductory-level understanding of gen-etics is assumed; 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. Exploration of the interaction of genetics and social inequalities, 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, psychological consequences of poverty, and introduction of concepts of a life course by following stress biology through childhood development and into adulthood. Letter grading.

160. Politics of Heredity. (4) Seminar, three hours. Exploration of intersection of politics and genetics in liberal democracies and totalitarian regimes, as well as how genetics has been used to consolidate and undermine political authority, and how political authority has been employed to both promote and restrict genetics. Considers the role of genetics and genetics encod-ency in conflict, includ-ing cases such as the rise to power in Soviet Union of T.D. Lyсенко, peasant agronomist who rejected Mendelism in favor of quasi-Lamarckian approach to genetics; participation of ge-neticists in creation of Nazi Germany and debates over compulsory sterilization of mental defective in U.S., Canada, and Europe from 1920s to 1940s. Contemporary cases such as controversies over genetically modified foods and regulation and governance of regenerative technologies, and rise of disease advocacy groups as important players in deter-mining funding and direction of genetic research. Letter grading.

161. Controversy and Behavior Genetics. (4) Semi-nar, three hours. Behavior genetics is controversial and seeks genetic links to intelligence, personality, mental health, among many other traits. It explores differences between individuals, men and women, or racial groups, and what social policies might do about those differences. Analysis of causes and effects of controversy in behavior genetics using critical sociological and history. Consider-ation of scientific disputes between behavior geneticists and their critics, distinctive history and social or-ganization of genetics as a branch of science, and public reception of behavior genetics and dis-putes about its social and policy implications. Letter grading.

162. Biotechnologies, Law, and Body. (4) Seminar, three hours. Notions of bodily integrity, privacy, right to life, and to choose to die have created perceptions that our bodies are protected by law, that somehow we possess ownership and control over our bodies, encompassing not only our physical being but intan-gible information contained within our materialized forms. Question of whether these rights to our own bodies exist and are secured by common and Constitu-tutional law, in light of recent developments in bio-tech-nology, legal responses and implications, and legal dis-course of rights. Historical perspective of how law and policy have treated our bodies. Legal and policy issues emerging from new biotechnological develop-ments. Examination of reproductive issues, legal and legal issues, legal developments. Letter grading.


164. Ethics in Health and Research. (4) Lecture, three hours. Is it always right to allow organ donors to be allocated in context of scarcity? What happens when doctor disagrees with patient on best treatment? Should researchers be allowed to experiment on human beings? Although medicine has always faced life-of-death decisions, new challenges arise in light of dramatic advances of biomedicine in 21st century. New possibilities for cures come with new moral issues. Biomedical research is full of prob-lems, yet faces many ethical difficulties. Examination of complexity of decision making in biotics by artic-ulating point of views of all actors engaged in those decisions at local and international levels—doctors, nurses, patients, families, health policymakers, re-searchers, and citizens. Focus on case studies with reliance on philosophical essays and material from contemporary media. Letter grading.

165. Introduction to Bioethics. (4) Lecture, three hours. Should one be allowed to choose sex of babies or whether they will be tall enough to be next basketball star? Should terminally ill be helped to die? Do we have the right to die in circumstances such as? Examples of ethical questions that arise in light of dramatic ad-vances of biomedicine in 21st century. While new knowledge and biotechnology give rise to great pos-sibilities for cures and extending human existence, they also create new moral dilemmas and challenge us to redefine what is good life or family. Introduction to field of bioethics, with focus on case studies that rely on contemporary essays in philosophy and material from contemporary media. Letter grading.

M166. Future of Humanity: Bioethics of Health and Disability. (4) (Same as Disability Studies M186.) Le-c-ture, 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-assisted dying? Is disability for-ming part of our identity? How do we handle illness with disability? What should we do to prevent, and our society, as well as the law and legal systems provide solutions and protections? Letter grading.

175. Current Directions in Social and Historical Study of Science. (4) Seminar, three hours. Prepura-tion: some familiarity with field of science and tech-nologies, recent history, and social and study of science and technology, with spe-cial emphasis on recent developments, possible fu-ture directions, and questions of disciplinarity and in-terdisciplinarity. Topics may include histories of recent and emerging science; biocapital, biocitizenship, bi-osecurity, and/or biopolitics; social and historical ap-proaches to finance and money; and social and his-torical approaches to risk, preparedness, and safety. Letter grading.

180. Special Courses in Society and Genetics. (4) Lecture, three hours. Departmentally sponsored ex-perimental or temporary courses on selected topics, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

188. Special Courses in Society and Genetics. (4) Seminar, three hours. Departmentally sponsored ex-perimental or temporary courses on selected topics, 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. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-signed as an 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 of up to 4 units. Honors contracts re-quired. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Society and Genetics. (1) Seminar, one hour. Students. Designed to bring together advanced undergraduate students undertaking faculty-supervised tutorial research to discuss their own work or related work in society and genetics. Letter graded once for credit with topic change. P/NP grading.

191. Variable Topics Research Seminars: Perspec-tives in Society and Genetics. (5) Seminar, three hours. Enforced requisites: courses 101 (or Life Sciences 4), M102. Discussion of genetics and society from historical perspective. How science of genetics itself is deeply social. Study of how biologists and an-thropologists have conceptualized relations of genetics and (social) environment. Reading of accounts of human nature, human flourishing, and dignity that seem to privilege nature as something that can guide ethical thought and action. How these accounts would encourage or discourage people from manipu-lating their genetic inheritance. Consideration of what is new in new genetics. Current discussions of promise and peril of genetics in relation to society. Cribininating paper research and graded once for credit with topic change. Letter grading.

191R. Capstone Seminar: Human Biology and So-ciety. (5) Seminar, three hours. Enforced requisites: courses 105A, 105B. Students bring their accumu-lated interdisciplinary knowledge and methodological tools to bear on one contemporary problem at inter-section of biology and society. Student peers, whose major studies fall within concentrations, will share and learn from each others' multiple perspec-tives while working together on one topic presented in class. Topics vary and come from major concentra-tions. Culminating project is team writing assignment, for credit with topic change. Letter grading.

191S. Capstone Seminar: Society and Genetics. (5) Seminar, three hours. Enforced requisites: courses 101 (or Life Sciences 4), M102. Discussion of genetics and society from historical perspective. How science of genetics itself is deeply social. Study of how biologists and an-thropologists have conceptualized relations of genetics and (social) environment. Reading of accounts of human nature, human flourishing, and dignity that seem to privilege nature as something that can guide ethical thought and action. How these accounts would encourage or discourage people from manipu-lating their genetic inheritance. Consideration of what is new in new genetics. Current discussions of promise and peril of genetics in relation to society. Cribininating paper research and graded once for credit with topic change. Letter grading.
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. Culumining paper required. May be repeated once for credit with topic change. Letter grading.


195SC. 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 non-profit 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. (1 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Directed research under faculty mentor. At end of term culminating paper describing progress of project required. Preparation: submission of written proposal outlining study or research to be undertaken. Departmental approval. 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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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 analytical 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 must have a minimum grade of C in Sociology 101 and 102. After acceptance into the honors program, students must complete all preparation for the major courses.

Composing 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.

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 and critical thinking about topics 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 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. Examination of theoretical debates and empirical analysis of causes and consequences of transnational migration in countries of origin and destination, with focus on issues of race, ethnicity, social networks, development, citizenship, and state in comparative context. Letter grading.

M72A-M72B-M72CW. Sex from Biology to Gendered Society. (6–6–6) (Same as Communication M72A-M72B-M72CW, and Sociology M72A-M72B-M72CW.) Course M72A is enforced requisite to M72B, which is enforced requisite to M72CW. Limited to first-year freshmen. Letter grading. M72A-M72B. Lecture, three hours; discussion, two hours. Examination of many ways in which sex and sexual identity shape and are shaped by biological and social forces, approached from complementary perspectives of anthropology, biology, medicine, and sociology. Specific topics include biological origins of sex differences, intersex, gender identity, gender inequality, homosexuality, sex differences, sex/gender and law, and politics of sex research. M72CW. Special Topics Seminar, three hours. Enforced requisite: course M72B. Topics may include politics of reproduction, sexuality, sexual identity, social construction of gender, 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 or from a different perspective. P/NP or 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. 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 through supplemental 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 may not 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 practicum 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. The collection and analysis of both field notes and unstructured interview data from student field placement. Use of techniques of qualitative data analysis, including qualitative coding, analytic memoing, and grounded theory methods, to analyze these materials and to write ethnographic paper. Letter grading.

110. Sociohistorical Methods. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. General problems of scientific abstraction, generalization, inference, and verification and particular problems of historical specification, comparison, and counterfactual reasoning in constructing and testing replicable explanations of historical events. Letter grading.

111. Social Networks. (4) Lecture, three hours; laboratory, one hour. Analysis of how social networks create social structure, how social actors utilize them, and their unexpected effects. Topics include structure and dynamics of networks and their unexpected effects. Topics include network roles and relations, observing and describing, writing field notes on fieldwork, field interviews, ethical issues, and preliminary data analysis. Fieldwork and extensive field notes required. Letter grading.

124A-M124B. Conversational Structures I, II. (4–4) (Same as Communication M144A-M144B.) Lecture, three hours; discussion, one hour. P/NP or letter grading. M124A. Introduction to some structures that are employed in organization of conversational interaction, such as turn-taking organization, organization of repair, and some basic sequence structures with limited expansions. M124B. Requisite: course M124A. Consideration of some more expanded sequence structures that may include empathy-based topics, politeness, and interactional aspects of language use. Letter grading.

125. Death, Suicide, and Trauma. (4) (Same as Psychology M163.) Lecture, four hours; discussion, one hour. Requisite: course 124A. Requisite: 124A. Characteristics of crowds, mobs, and panic in modern and historical societies. 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 cognition, identity, and reference groups; and interaction process. Letter grading.
death. Suicide is eighth leading cause of death in U.S. and third leading cause for young people aged 15 to 24. Both kinds of violent deaths are often dismissed as extreme psychopathology, reflecting individual mental health issues. Sociologists argue that suicide and homicide are social facts. Suicide and homicide do not occur randomly in society but are stratified according to social factors such as age, gender, race, social class, and area. Analysis of strength of this sociological argument and evaluation of explanation potential of different theories to make sense of violent death, paying particular attention to forensic and medicolegal system to determine suicide and solve homicide. Review of historic and contemporary studies to examine how research and conceptualization of suicide and homicide have changed, as well as social responses to these phenomena. P/NP or letter grading.

141A. Migration and Labor in Mexico-U.S. Context. (S) Seminar, 20 hours. Mexico-U.S. migration is largest and oldest continuous international population flow of contemporary world. In recent decades, prompted by swift economic transformations, rural and urban Mexicans from every corner of Mexico have joined this migratory flow, settling well beyond southern border, into far-reaching area of U.S. interior. Migration is binding U.S. and Mexico stronger than ever, putting this complex and multilayered phenomenon at top of bilateral agenda. Examination of sociological dynamics of international migration and labor as they apply to Mexico-U.S. context, including demographic, political, and economic dynamics of migration, economic and social infrastructures that support cross-border mobility, and connections of migration with binational, national, regional, and local labor markets. Comparative insights to contrast this flow with other contemporary population streams in summation. P/NP or letter grading.

141B. Migration and Labor in Mexico-U.S. Context: Research Seminar. (S) Seminar, 10 hours; fieldwork, 10 hours. Development of qualitative micro-study and research paper on migration and labor in Mexico-U.S. context. Research topic of interest to be selected so students become familiar with commonly employed qualitative methods of research. Designed to help students understand basics of methodological reasoning, how to formulate research questions, and how to frame and investigate one particular issue related to migration and labor. How to make ethical decisions about conducting research. Development of student skills in interviewing by conducting primary and secondary research culminating in final research paper to be presented to faculty members and peers. Offered in summer only. Letter grading.

142. Healthcare in Transnational Communities. (4) (Same as Public Health M151.) Lecture, three hours; discussion, one hour. Analysis of social, cultural, economic, and political processes affecting organization and accessibility of healthcare in transitional and disadvantaged communities. Fieldwork required. Letter grading.


144. Stress and Society: Biology and Inequality. (4) (Same as Society and Genetics M144.) Lecture, three hours; discussion, one hour. Integration of view of health disparities, one of most pressing problems of society. Thorough investigation of effects of socio-economic 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 physiological consequences of poverty, and introduction of concepts of life course by following stress biology through childhood development and into adulthood. Letter grading.

145. Sociology of Deviant Behavior. (4) Lecture, three hours; discussion, one hour. Examination of leading sociological approaches to study of deviation and general survey of major types of deviation in American society. P/NP or letter grading.

147A. 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.

147B. 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 processes that lead to and become involved in juvenile justice system. Analysis of this system as people-processing and people-changing institution as context for considering critical issues in juvenile justice. P/NP or letter grading.

150. Sociology of Aging. (4) (Same as Gerontology M150.) Lecture, three hours; discussion, one hour. Study of sociological processes shaping definition, 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 migration 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.

153. Chinese Immigration. (4) (Same as Asian American Studies M130C.) Lecture, three hours; discussion, one hour. Examination of social, cultural, and political processes affecting organization and accessibility of Chinese American 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.

155. Latinos in U.S. (4) (Same as Chicana and Chicano Studies M155A.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of history and social conditions of Latinos in Los Angeles as well as nationally, with particular emphasis on their location in larger social structure and on comparisons with other minority groups. Topics include migration, family, education, and work issues. P/NP or letter grading.

156. Race and Ethnicity in American Life. (4) Lecture, three hours; discussion, one hour. Role of race and ethnicity in the U.S., including interplay between racial and ethnic structures and meanings. Special attention to comparison of African American and European American experiences and to transformation of Asian American and Latino communities and the nation generally, wrought 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 stratification, 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.


M162. Sociology of Gender. (5) (Same as Gender Studies M162.) Lecture, three hours; discussion, one hour. Enforced requisite: course 1 or Gender Studies 10. Examination of processes by which gender is socially constructed. Topics include distinction between biological sex and sociological gender, causes and consequences of gender inequality, and recent changes in gender relations in modern industrial societies. P/NP or letter grading.

M163. Gender and Work. (4) (Same as Gender Studies M163.) Lecture, three hours. Requisite: course 1 or Gender Studies 10. Exploration of relationship between gender and work, focusing on intersections between the U.S. experience but also including some comparative material. Particular emphasis on analysis of causes and consequences of gender segregation by gender and wage inequality. P/NP or letter grading.

M164. Politics of Reproduction. (4) (Same as Gender Studies M164.) Lecture, three hours; discussion, one hour. Title 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. Exploration of relationship between race, ethnicity, employment, and U.S. labor movement. Analysis of underlying racial divisions in workforce and how they evolved historically. Consideration of circumstances under which workers and unions have 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.

166. Organizations and Society. (4) Lecture, three hours; discussion, one hour. Sociological analysis of organizations and their social environment. Introduction to basic theories, concepts, methods, and research on behavior of organizations in society. P/NP or letter grading.

169. Law and Society. (4) Lecture, three hours; discussion, one hour. Specific topics may include law in preindustrial and industrialized societies, legalization 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 a perspective in Sociology and other social sciences, as well as students preparing for health sciences careers, with understanding of health-seeking behavior and interpersonal and organizational relations that are involved in 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 principal 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 M175.) 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. Emphasis on U.S. society, trends in educational attainment; ways in which family background, class, race, and gender affect educational achievement and attainment; stratification between and within education on socioeconomic lines; economic attainment, family, health, attitudes, and social participation; educational policies to improve school quality and address socioeconomic inequalities. Letter grading.

M176. Sociology of Mass Communication. (4) (Same as Communication M147.) Lecture, four hours; discussion, one hour. Study of the 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 the Caribbean. (4) (Same as African American Studies M178.) 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. Social Topics in Sociology. (4 each) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Study of selected topics of sociological interest. Topics may be repeated for credit and may be applied as elective units toward Sociology major. P/NP or letter grading.

181C. Introduction to Sociology. (4) Lecture, three hours; discussion, one hour. Course may be repeated for credit. P/NP or letter grading.

181A. Exploration of 20th-century changes in China, including end of dynasties, Republican era, Communist Revolution, and market reform. Topics include transformation in Chinese social structure and institutions and everyday practices. Survey of changes and analysis of forces shaping contemporary China and global impact and current implications. 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 Chinese cultural values and their causes. Focus on interaction of economic and political change plus family organization. Contrasts and similarities between China and West, China’s place in social scientific theories 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 1. Survey of central themes of comparative and historical studies in sociology. Various aspects of development and change in society, 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 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. Individual student with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


M191DC. CAPPP Washington, DC, Research Seminar. (5) Seminar, three hours. Limited to juniors/seniors. Study of selected topics of sociological interest. Topics may be repeated for credit and may be applied as elective units toward Sociology major. P/NP or 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. Designed to introduce students to the process of producing scholarly sociological research for students who intend to write undergraduate thesis for departmental honors. Letter grading.

M191I. 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.

M191J. Undergraduate Seminar: Mexican Society. (5) Seminar, three hours. Selected topics on contemporary Mexican society and historical roots. Emphasis on topics that have undergone in recent years. Reading, discussion, and development of culminating project. Letter grading.

M191K. 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 and current trends 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.


M191M. 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/senior. Study of urbanization, as well as current trends. Discussion of major theoretical issues and methodological approaches used to study contemporary urban and suburban society. Letter grading.
plan for city of 92.2 million, rebuilding of World Trade Center, Robert Moses (New York's mass 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, ghettos, education, urban poor, public housing, and search for affordable housing. Offered in summer only. Letter grading.

191G. Undergraduate Seminar: Ideals of Love in Historical Context (1) Seminar, three hours. Limited to juniors/seniors. Exploration of historically specific understandings of love. Reading, discussion, and development of culminating project. Letter grading.


191Q. Undergraduate Seminar: Communication in Medical Care. (5) Seminar, three hours. Limited to juniors/seniors. Sociology dimensions of patient care in primary care. Use of micromethods to examine main facets of American primary care medical visits, including detailed analysis of interactional conduct of those visits and development of micro-methods to test such analyses. Emphasis on direct contact with empirical materials and development of observational and analytic skills. Reading, discussion, and development of culminating project. Letter grading.

191R. Undergraduate Seminar: Cultural Sociology. (5) Seminar, three hours. Limited to juniors/seniors. Introduction to classic theoretical approaches and contemporary developments in study of world systems dedicated to creating and handling cultural institutions such as literature, journalism, film/television, art, architecture, music, dance, and museums. Discussion of such issues as contemporary validity of distinction between high and popular/culture, relationship of mainstream and marginal culture, how culture expresses and reinforces social inequality, organizational culture, and how people express and decipher meaning in cultural objects. Reading, discussion, and development of culminating project. Letter grading.

191S. Undergraduate Seminar: Sociology of Gender and Sexuality. (5) Seminar, three hours. Limited to juniors/seniors. Sexuality is important site for enactment of gender and gender identity. Sexual preference and sexual behavior can also form basis for social identity, repression, discrimination, and privilege, independent of gender. Social factors such as social class, ethnicity, generation, and networks shape our sexual practices and choice of partners. Reading and writing in sociological, historical, and anthropological texts and development of culminating project. Letter grading.

191T. Undergraduate Seminar: War and Society. (5) Seminar, three hours. Limited to juniors/seniors. Study of relationship between society's military and its social organization in general, with particular attention to shock-based civic militarism characteristic of the West. Topics include honor, discipline, bureaucracy, representation, logistics, total war, guerilla terrorism, and counterinsurgency. 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.

M194DC. CAPPW Washington, DC, Research Seminars. (4) (Same as History M194DC and Political Science M194DC) Seminar, three hours. Limited to CAPPW 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 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. (4) Tutorial, three hours. Limited to junior/senior. Internship in community agency or business to be supervised jointly by Center for Community Learning and faculty adviser. Students meet on regular basis with weekly reports of their experience. Normally only 4 units of internship are allowed. Individual contract with supervising faculty member required. P/NP or letter grading.

198CC. Community and Corporate Internships in Sociology. (4) Tutorial, three hours; 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 readings assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Learning. No more than 4 units may be applied toward major; units applied must be taken for letter grade. Individual contract with supervising faculty member required. P/NP or letter grading.

M195DC. CAPPW Washington, DC, Internships. (4) (Same as History M195DC and Political Science M195DC) Seminar, three hours. Limited to junior/senior CAPPW Program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NP grading.


199D. Directed Research in Sociology. (2 or 4) Tutorial, one hour. Requisite: course 191H. Limited to sociology honors program students. May be repeated for credit. Individual contract required. Letter grading.

201A-201B. Proseminars: Sociology. (2–2–2) Seminar, two hours every other week. Required of first-year graduate students. Introduction to range of theoretical and research interests represented by department faculty members. S/U grading.


203. How to Write a Lot. (4) Seminar, three hours. Designed to help graduate students develop regular and productive writing practices. Appropriate for students in their second year or beyond who have 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 them from 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 theoretical and philosophical 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 social organization, with major focus on relationships among economic institutions, family structure, and content of family life. Consideration of concepts, theories, and data about kinship. S/U or letter grading.

206. Understanding Fertility: Theories and Methods. (4) (Same as Community Health Sciences M222B) Lecture, three hours. Preparation: one formal social demographic course. Requisite: Biostatistics 100A. Consideration of major theories and methods to describe fertility trends and differentials and social and proximate determinants of fertility, with emphasis on understanding key proximate determinants. For advanced students interested in population, demography of health, and social demography. Letter grading.


208C. Machine Learning for Social Scientists. (4) Lecture, three hours. Requisites: courses 210A, 210B, or consent of instructor. Conceptual, mathematical, and computational foundations of machine learning, with special focus on social science applications. Survey of supervised and unsupervised methods, including Naive Bayes, k-means, logistic regression, decision trees (classification and regression), topic models, and neural networks. Practicalities of implementation on range of data types. S/U or letter grading.


210C. Intermediate Statistical Methods III. (4) Lecture, three hours; discussion, one hour. Requisite: course 210B. Survey of advanced statistical methods used in social research, with focus on problems for which classical linear regression is inappropriate, 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. Comparative and Historical Methods. (4–4) Lecture, three hours. Enforced requisite: course 211A. 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 212A 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 American Sociological Review or similar journal article. Topics include simple tabular analysis, correlation, linear regression, and analysis of variance, and other designs. Students participate in complex design classes for specific analytic problems both within and between two approaches. S/U or letter grading.

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 American Sociological Review or similar journal article. Topics include simple tabular analysis, regression, robust regression, nonparametric tests, analysis of variance, and other designs. Students participate in complex design classes for specific analytic problems both within and between two approaches. S/U or letter grading.

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, quasi-experimental, and nonexperimental designs; contextual and other designs. Discussion of suitability of various design classes for specific analytic goals, as well as their comparative strengths and weaknesses. S/U or letter grading.

M213A. Introduction to Demographic Methods. (4) (Same as Biostatistics M208, Community Health Sciences M208, and Economics M208.) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include 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 models; parametric survival models; heterogeneity; multilevel survival models. S/U or letter grading.

213C. Population Models and Dynamics. (4) Lecture, three hours. Enforced requisite: course M213A. Population models and their dynamics in population processes. How demographic models are used in estimation of population size, age structure, and associated dynamics of different demographic processes to gauge conclusions from demographic models. Estimation of demographic models in human population and broader relevance of demographic analysis to study of any system or system, including health and social systems. S/U or letter grading.

216A–216B. Survey Research Design. (4–4) Lecture, 90 minutes; discussion, 90 minutes. Requisite: course 216A. 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 probability sampling, stratification and clustering. Students participate in a survey research project. Letter grading.


217B–217C. Ethnographic Fieldwork. (4–4) Seminar, three hours. Recommended requisite: course 217A. Theories and techniques of ethnographic fieldwork. Kinds of problems amenable to ethnographic approaches, 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 interactional 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 work 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 both within and across approaches. When relevant, attention to logical and historical relations of phenomenology and interactionism of pragmatist, existentialist, and ordinary language philosophees. 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 critically assessed. 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 general framework within which to approach race to race, one that strives to be as comparative at level of theory (attending to relationship between race and other forms of social classification, including ethnicity and nationality) as possible. At level of research, exploration of cases from wide variety of countries, including Australia, Brazil, Colombia, Dominican Republic, Haiti, Mexico, modern China, modern Japan, Nazi Germany, Namibia, Rwanda, South Africa, Sudan, and U.S. S/U or letter grading.

M231. Race, Class, and Gender: Constructing Black Womanhood and Black Manhood in America. (4) (Same as African American Studies M202G.) Seminar, four hours. Race, class, gender, and sexual identity are axes of stratification, identity, and experience. They are not merely identities but structural locations that are often taken for granted and rarely counterclaimed. Often times one or more of these go unrecognized. Exploration of multiple and intersecting ways these concepts shape society, individual life chances, and daily social interactions for African Americans. Examination of race, class, and gender inequalities as individual aspects of social life. How race, class, gender, and sexual identity shape societies and individual experiences in interaction with each other. How these inequalities shape and are shaped by social institutions, including cultural institutions, economy, and family, within context of experiences of black women and black men in contemporary U.S. Letter grading.

232. Class, Politics, and Society. (4) Lecture, four hours. Nature of class structure and how it affects relation of class structure to politics and political power. Issues of difference of class seek to uncover identities such as gender, age, race, and nationalism. Examination of contemporary “globalization” tendencies of capitalism. Letter grading.

233. Foundations of Political Sociology. (4) Lecture, three hours. Preparation for graduate students. Survey of field of political sociology, oriented around critical themes in major theoretical traditions and contemporary exemplars. Special attention to competing perspectives on power, theory of state, and relationship of class structure to politics. S/U or letter grading.

234. Sociology of Development. (4) Seminar, three hours; discussion, one hour. Readings and discussion of theoretical, historical, and contemporary sociology of development (e.g., world system theory, developmentalism, state, import substitution industrialization, export promotion industrialization, neoliberalism in Latin America, new approaches). S/U or letter grading.

235A–235B. Race/Ethnicity in U.S. (4–4) (Formerly numbered 235 and 261.) Lecture, three hours. Survey of theoretical and empirical research on race, ethnicity, and immigrant groups in U.S. to provide comparative analysis of racial/ethnic groups as well as provide detailed knowledge of particular racial/ethnic groups, to situate contemporary experiences within historical contexts, to understand structural integration into U.S. society (i.e., structural assimilation or socioeconomic mobility), and to examine theoretical approaches to understanding race, ethnicity, and nationalism in contemporary society. Preparation for field examination in race and ethnicity. S/U or letter grading.

M236A–M236B. International Migration. (4–4) Lecture, three hours. S/U or letter grading.

236A. (4) Lecture, three hours. Comprehensive overview of key current theoretical debates in study of international migration, with focus on exploration of possibilities of comparative (historical and cross-national) research program in field, linking North American, European, and other global experiences of immigration. S/U or letter grading.
M238. Feminist Theory. (Same as Gender Studies M238.) Seminar, three hours. Designed for graduate students. Analysis of current American feminist thought and its impact on society. 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 connections for future feminist sociology. Letter grading.

M239A-239B. Social Stratification, Mobility, and Inequality. (4–4) Lecture, three hours. Enforced requisites: courses 239A and 239B. Course 239A is enforced requirement to 239B. Introduction to sociological 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; socioeconomic factors and narrating 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 masculinists paradigmatically make space for gender or does femininized discourse 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. Introduction to conversation analysis: its core concepts, current issues, and methodology; and its range of applications.

244B. Requisite: course 244A. Continuation of introduction to some structures basic to organization of conversational interaction: organization of repair, and practices of word selection and reference to persons, places, time, and action. S/U or letter grading.

245. Cultural Sociology: Classical and Contemporary Approaches. (4) Lecture, one hour; discussion, two hours. Exploration of classical approaches to cultural analysis: Weber, Durkheim, Parsonian, and critical—and living traditions they have spawned. Examination of contemporary efforts at constructing new cultural sociology. Theoretical focus on consideration of case studies. S/U or letter grading.

246. Sociology of Culture. (4) Seminar, three hours. Theoretical and methodological issues in structural approaches to culture. Perspectives include cultural economics, political economy, and production of culture. S/U or letter grading.

247. Sociology of Emotions. (4) Lecture, two hours; discussion, one hour. Designed for graduate students. Sociological theories of emotional expression; experiences of emotion in society; measurement of emotions. 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, concepts, theories, and large-N investigations, with focus on developing student expertise in understanding social movement research and conceptualizing research projects. S/U or letter grading.

M252. Selected Topics in Social Methodology. (4) (Same as Sociology M252C.) Lecture, two hours; discussion, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.

253. Politics of Reproduction, Gender, and Family. (4) Seminar, three hours. Human reproduction and its regulation have long been a focus of contentious political and social issues, and remain topical today. Reproduction refers to intersection between politics and life cycle, or between public sphere and private lives. Explanations for fertility and family patterns and lives of citizens has blurred lines between public and private interests. Exploration of diverse aspects of reproduction, their gendering, and their impact on changing family forms to encourage students to think creatively and historically about these issues in different contexts and cultures. Letter grading.

254. Human Capital, Social Capital, and Cultural Capital. (4) Lecture, three hours. Designed for graduate students. Historical evolution of these concepts; points of difference and similarity among these concepts, current exemplars of research that utilize these concepts, and critical reflection on research traditions. Letter grading.

M255. Cross-Cultural Perspectives on Gender. (4) (Same as Gender Studies M255.) Seminar, three hours. How does gender manifest itself in lives of different cultures; between the biological and social? Are universal analytical categories or unified feminist moves possible or is gender too different cross-culturally? S/U or letter grading.


257. Demography of Marriage Formation and Dissolution. (4) Discussion, three hours. Requisite: course 210A. Extensive and intensive critical examination of major approaches to analysis of marriage formation and dissolution primarily on de-mographic literature. S/U or letter grading.

258. Talk and Social Institutions. (4) Lecture, four hours; discussion, one hour. Practices of communication and social interaction in number of major institutional sites in contemporary society. Setting varies but may include emergency services, police and courts, medicine, news interviews, and political oratory. Concurrently scheduled with course CM125. S/U or letter grading.


M262. Black Families and Relationships. (4) (Same as African American Studies M200C.) Seminar, three hours. Evaluation of social, cultural, and historical forces that affect socialization, stability, and interaction in black intimate relationships, beginning with theoretical framework from black feminism to analysis of economic and other expectations for partners in cohabiting and other types of unions. Examination of family life for both middle-class and low-income populations. Exploration of notions of black sexuality, including images of hyper-masculinity and femininity within black body and critical interrogation of notions of blackness and authenticity in racial identification. Contribution to greater understanding of black intimate relationships in different contexts, including les-bian and gay identities, Caribbean and other ethnic identities, and interracial intimacies. S/U or letter grading.

M263. Social Demography of Los Angeles. (4) (Same as Community Health Sciences M263.) Lecture, four hours. Discussion, two hours. Designed for graduate students. Use of city of Los Angeles to examine major social and demographic factors that characterize cities in the U.S. Examination of role of these factors in affecting health outcomes and disparities.


266. Selected Problems in Analysis of Conversa-tion. (4) Lecture, three hours. Requisites: courses 244A, 244B. Variable topics/facilitate course. Consult instructor for topics and formats to be offered in specific term. May be repeated for credit with topic change. S/U or letter grading.

268. Selected Problems in Psychoanalytic Sociolo-gy. (4) Discussion, three hours. Recommended preparation: at least one year of methods courses. Selected problems in interpretation of sociology and psychoanalysis, which may be substantive (group development, socialization, culture, deviance, collective behavior) or methodological; latter focuses on clinical fieldwork and experimental use of psychoanalytic and sociological techniques. S/U or letter grading.

272. Topics in Political Sociology. (4) Lecture, four hours. S/U or letter grading.


278. Sociology of Latin America. (4) Lecture, one hour; discussion, two hours. Designed for graduate students. Selected topics in sociological study of Latin America. Possible topics include social movements, race and ethnicity, stratification, and social development. Letter grading.

M280. Trafficking, Gender, Health, and Human Rights. (4) (Same as Law M577.) Seminar, four hours. Review and critical assessment of diverse literature on international traffic of persons, with emphasis on significance of sociological, legal, and gender aspects of trafficking. Primary focus on sex work and blurred lines between discourse on commercial sex trade and trafficking. Additional issues include role of political and economic transition, militarization, human rights implications of trafficking, trafficking for non-sexual labor, and role of advocacy. S/U or 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. Requisite: 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 Intergenerational Mobility. In Progress (M290A) and Dissertation (M290B) 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 does this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, brought about by globalization 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 (M290A) and letter (M290B) grading.

295. Working Group in Sociology. (1 to 4) Discussion, two hours. Variable topics, including sociology of gender; ethnography; social networks; race, ethnicity, immigration; and social demography and stratification. Preparation: study and analysis of current topics in specialized areas of sociology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

C297. Urban and Suburban Sociology. (5) Seminar, three hours. History and present condition of cities and suburbs in America, with stress on global cities such as New York and Los Angeles, and comparisons to London and Shanghai. Process of suburbanization as it began in early 19th century and still continues. Analysis of city politics, house and architectural styles, crime, urban terror, public housing and 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 employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


495. Supervised Teaching of Sociology. (2) Seminar, two hours. Preparation: appointment as teaching assistant in Sociology Department. Special course for teaching assistants designed to deal with problems and techniques of teaching introductory sociology. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparatory: 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.


**Spanish and Portuguese**

**College of Letters and Science**

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**Spanish and Portuguese**

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**Scope and Objectives**

The Department of Spanish and Portuguese is dedicated to the study and teaching of the languages, literatures, and cultures of the Hispanic heritage in all areas of the world, particularly on the continents of Europe and America. It maintains a strong commitment to the value of original research and professional instruction at all levels of its activities.

Whether studying for the BA, MA, or PhD degree, students are given careful guidance in the choice of courses and in the preparation of a study program. The richness of Hispanic culture is amply represented in the extensive range of courses in language, linguistics, and literature. Although the literatures of Spain, Portugal, Brazil, and Spanish America predominate, courses are also offered in Chicano literature. The breadth of courses offered by the department allows undergraduate students to pursue many possible interests and enables graduate students to concentrate in depth in several areas of specialization.

**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 minors 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, 150, 155C, 160, 170, 175, 195; (3) two interdisciplinary studies courses selected from Chicana and Chicano Studies 100SL, CM106, M119, M120, M121, M122, 131, M144, 149, 181, Sociology M155; (4) two capstone community-based and experiential learning courses (8 to 10 units) selected from Chicana and Chicano Studies 100SL, Spanish M165SL, M172SL.

A minimum of 46 units applied toward the major requirements must be in addition to units applied toward major or minor requirements in another department or program.

Spanish and 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: Ten upper-division courses (45 units minimum), including Portuguese 100A or 100B, 130A, 130B, and seven elective courses selected from 100A through 199. Two courses from outside the department that focus on Brazil, Portugal, or Lusophone Africa may be applied toward the major with approval of the undergraduate adviser. A minimum of eight of the 10 courses must be taught in Portuguese.

Double Majors

Through judicious use of electives, students may find it possible to secure the BA degree with two complete majors (e.g., Portuguese/Spanish, Portuguese/History, Portuguese/Sociology, etc.). Interested students should consult with the undergraduate advisor in Portuguese as early as possible in their BA program.

Study in a Portuguese-Speaking Country

Students are encouraged to spend up to one year in a Portuguese-speaking country to study in a university or conduct research. Appropriate credit may be granted in accordance with the individual program, arranged in consultation with the undergraduate faculty advisor 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 or 27, and one course from History 8A, 8B, 8C, or Spanish 44.

Required Upper-Division Courses (20 to 22 units):
Three Mexican culture and literature courses selected from Spanish 135 through 175 in consultation with the undergraduate advisor 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 advisor, 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.

Indigenous Languages of the Americas

Lower-Division Courses

Upper-Division Courses

119A-119B-119C. Advanced Quechua. (4–4–4) Lecture, five hours. Requisite: course 18C. Course 119A is requisite to 119B, which is requisite to 119C. Readings in Quechua. Dialectal and stylistic variation. Discussions mainly in Quechua. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Graduate Course
596. Directed Studies in Quechua. (1 to 8) Tutorial, to be arranged. Requisite: courses 119A, 119B, 119C. Directed individual study or research in Quechua. Four units may be applied toward MA course requirements. May be repeated for credit. S/U grading.

Portuguese 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 (PhD) degrees in Hispanic Languages and Literatures.

Variable Topics Research Seminars: Indigenous Languages. (2 or 4) Seminar, three hours. Research seminars on selected topics on various indigenous languages. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

Graduate Course
Spanish and Portuguese / 703
tive competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

2. Elementary Portuguese. (4) Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Overview of phonology, vocabulary, syntax, and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

3. Intermediate Portuguese. (4) Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Intermediate Portuguese language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

8A-BB. 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, three 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 proficiency and critical thinking about topical 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, two hours. Enforced requisite: course 3 or 11B. Taught in Portuguese course with cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.


26A. Language and Popular Culture: Summer Course. (4) Lecture, 20 hours. Enforced requisite: course 3 or 11B. Development of speaking, reading, and writing skills. Structured in thematic units, with songs, videos, and specific vocabulary emphasizing questions of Brazilian cultural identity. Includes cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

27. Advanced Composition and Style. (4) Lecture, three hours. Enforced requisite: course 3 or 11B. Practice in writing Portuguese with appropriate vocabulary, syntactical structures, and stylistic patterns. P/NP or letter grading.

27A. Advanced Composition and Style: Summer Course. (4) Lecture, 20 hours. Enforced requisite: course 3 or 11B. Practice in writing Portuguese with appropriate vocabulary, syntactical structures, and stylistic patterns. Includes cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Language. (5) (Same as Spanish M35.) Lecture, three hours; discussion, one hour. Introduction to language study within context of Romance languages, focusing on Spanish and Portuguese. Nature of language: structure, diversity, evolution, social and cultural settings, literary uses. Study of language and its relation to other areas of human knowledge. P/NP or letter grading.


46. Brazilian and Portuguese-Speaking World. (5) Lecture, four hours; discussion, one hour (when scheduled). Taught in English. Topical analysis of cultural history of Brazil in context of Portuguese-speaking world, with emphasis on comparative, trans-Atlantic, historical-cultural, and artistic manifestations. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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.


130A–130B. Introduction to Literature in Portuguese. (4–4) Lecture, four hours. Enforced requisite: course 25 or 26 or 27. Introduction to principal themes, currents, and authors from Brazil in context of Portuguese-speaking world. P/NP or letter grading.

141A. Literature and Film in Portuguese. (4) Lecture, four hours. Taught in English. Study of intextuality and dialectism, interactions between literary and cinematic fields, dead and equivalent between literary and cinematic expression in Portuguese-speaking world. May be repeated for credit with topic change. P/NP or letter grading.

141B. Film, Television, and Society in Brazil. (4) Lecture, four hours. Taught in English. Study of development, evolution, and impact of film and television in Brazil against backdrop of broader social, historical, and cultural contexts. May be repeated for credit. P/NP or letter grading.

141C. Documentary Film. (4) Lecture, four hours. Taught in English. Overview of documentary film production in Portuguese-speaking world, with special focus on period since 1985. May be repeated for credit with topic change. P/NP or letter grading.

142A. Brazil and Its Culture. (4) Lecture, four hours. Taught in English. Exploration of roots of contemporary Brazil through study of broad chronological periods from Portuguese colonization to present and how they shaped idea of Brazilian exceptionalism, racial mixture as source of national identity, and lusotropicalism and its influence on Brazilian historiography. May be repeated for credit with topic change. P/NP or letter grading.

142B. Brazil and Portugal in Comparative Perspective. (4) Lecture, four hours. Taught in English. Study of social and cultural links between Portugal and Brazil, with emphasis on immigration, dialogue, and contention in historical context. May be repeated for credit with topic change. P/NP or letter grading.

142C. Travel Narratives, Testimony, Autobiography. (4) Lecture, four hours. Taught in English. Exploration of travel, memory, and narrative in Portuguese-speaking world. Primary and secondary texts depict issues of displacement, cultural contact, and assimilation. Overview of connections among Portuguese-speaking cultures. May be repeated for credit with topic change. P/NP or letter grading.

143A. Colony, Intellectuals, and History. (4) Lecture, four hours. Taught in English. Overview of connections between literatures of Angola, Brazil, and Portugal against background of globalization and Internet. May be repeated for credit with topic change. P/NP or letter grading.

143C. Modernism, Modernity, and Identity. (4) Lecture, four hours. Taught in English. Overview of concepts and movements in Portuguese-speaking world, with primary focus on 1920s. Reading and discussion, with emphasis on sociohistorical context, relations with European avant-garde, modernist poetics and polemics, and search for national identity as expressed in period’s poetry and prose. May be repeated for credit with topic change. P/NP or letter grading.

143D. Contemporary Literature in Portuguese. (4) Lecture, four hours. Enforced requisite: course 25 or 26 or 27. Exploration of connections between literatures of Angola, Brazil, and Portugal against background of globalization and Internet. May be repeated for credit with topic change. P/NP or letter grading.

187FL. Special Studies: Readings in Portuguese. (2) Seminar, two hours. Enforced requisite: course 27. Students must be concurrently enrolled in affiliated main course. Additional work to be assigned in main course, including reading and writing assignments. 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 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 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. Letter grading.

191. Undergraduate Variable Topics Seminars: Portuguese. (4) Seminar, three hours. Enforced requisite: course 25 or 26 or 27. Research seminar on selected topics in Portuguese. Reading, discussion, and development of culminating project. Consult Schedule of Classes or department counselor for maximum number of units. Limited to juniors/seniors and graduate students. Individual contract required. P/NP or letter grading.

197. Individual Studies in Portuguese. (2 to 4) Tutorial, to be arranged. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Eight units of courses 197 and/or 198 may be applied toward major requirements. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

198A–198B. Senior Honors Research in Portuguese. (2–2) Tutorial, to be arranged. Completion of minimum of six upper-division major core courses with 3.7 grade-point average. Course 198A is enforced requisite to 198B. Limited to juniors/seniors only.
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 M200G) Lecture, three hours. Identification and use of research resources for graduate students. M201A-M201B. Literary Theory and Criticism. (4–8) (Same as Spanish M201A-M201B) Lecture, three hours. Discussion, distribution, and application of main currents of contemporary literary theory and criticism. Letter grading.

202. Synchronic Morphology and Phonology. (4) Lecture, three hours. Study of theoretical synchronic linguistics as applied to Portuguese. 204A-B. Graduate Grammar. (4–6) Lecture, three hours. Course 204A is requisite to 204B. Generative approach to the Portuguese language, with some consideration of bearing of syntax, semantics, and phonology on style, metaphor, and meter. M205A-M205B. Development of Portuguese and Spanish Languages. (4–4) (Same as Spanish M205A-M205B) Lecture, three hours. Intensive study of historical development of Portuguese and Spanish languages from their origin in spoken Latin.


259A. 20th-Century Portuguese Literature. (4) Lecture, three hours. Enforced requisite: course 27. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.

261. Colonial Brazilian Literature and Culture. (4) Lecture, three hours. Enforced requisite: course 27. Study of most important authors to 1830. May be repeated for credit with topic change. S/U or letter grading.

263. 19th-Century Brazilian Literature and Culture. (4) Lecture, three hours. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.


270. 20th-Century Brazilian Literature. (4) Lecture, three hours. Enforced requisite: course 27. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.

272. Folk Literature of Spanish and Portuguese Worlds. (4) (Same as Spanish 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.

275A1-M251B. Studies in Galega-Portuguese and Old Spanish. (4–4) (Same as Spanish M251A-M251B). Lecture, two hours. Study of problems related to historical development of Galega-Portuguese and Old Spanish. May be repeated once with topic change and consent of appropriate guidance committee.


274. Studies in Early Brazilian Literature. (4) Discussion, two hours. S/U or letter grading.

275. Studies in Modern Brazilian Literature. (4) Discussion, two hours. S/U or letter grading.

290. 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.


291. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (4 or 8) Tutorial, to be arranged. Study or research in areas or subjects not offered as regular courses. No more than 8 units may be applied toward MA course requirements. S/U or letter grading.

597. Preparation for Graduate Examinations. (4 to 12) Tutorial, to be arranged. Preparation: official acceptance of candidacy by department. Individual preparation for MA comprehensive examination or PhD qualifying examinations. May be taken only once for each examination and only in that comprehensive or qualifying examinations to be taken. S/U grading.


Spanish Lower-Division Courses

1. Elementary Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Introductory Spanish language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

2A. Intermediate Spanish. (4) Lecture, two 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.

3. Elementary Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Introductory Spanish language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

3A. Intermediate Spanish. (4) Lecture, two 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 stretches of discourse, reading of texts with minimum use of dictionary, writing with increased grammatical accuracy and control of sentence structure, coherence, and text organization, talking about past, present, and future events, and expression of preferences, feelings, beliefs, and opinions. P/NP or letter grading.

5. Intermediate Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Intermediate Spanish language and culture course designed to increase communicative ability. Acquisition of cultural competence and introduction to study of literature. Comprehension of conversations and stretches of discourse, reading of texts with minimum use of dictionary, writing with increased grammatical accuracy and control of sentence structure, coherence, and text organization, talking about past, present, and future events, and expression of preferences, feelings, beliefs, and opinions. P/NP or letter grading.

7A. Introductory Spanish for Heritage Speakers. (4) (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 course to further develop communicative abilities, both verbal and written, and to increase knowledge of grammatical structures and achieve communicative competence. P/NP or letter grading.

7B. Intermediate Spanish for Heritage Speakers. (4) Lecture, three hours; laboratory, two hours. Enforced requisite: course 3 or 7A or Spanish placement test. Laboratory is online. Designed for students who are from Spanish-speaking family background and have some knowledge of Spanish. Intermediate course to further develop communicative abilities, both verbal and written, and to increase knowledge of grammatical structures and achieve communicative competence. P/NP or letter grading.

8A-BB. Spanish Conversation. (2–2) 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-BB. 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 for students with strong Spanish or English background. Taught in Catalan 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 intellectual importance, taught by faculty mentor. Students must be in good academic standing and designed for advanced undergraduate and graduate students. P/NP or letter grading.

20. Fordham Research Center. May be repeated. P/NP or letter grading.

25. Advanced Spanish Composition. (4) Lecture, three hours. Requisite: course 20 or 26. 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 literature. 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. Introduction to the 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. Requisite: course M25 or P/NP or letter grading. Development of writing skills through application of 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.

107. Advanced Spanish Grammar for Heritage Speakers (4) Lecture, four hours. Requisite: course 27. Stresses acquisition of standard and formal registers and advanced grammatical structures, accentuation, orthography, and avoidance of vocabulary and sentence structure. Draws from existing linguistic background to perfect grammar and writing in Spanish. Most required reading in 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 included and discussed. Reading and analysis of number of important scholarly and critical statements pertaining to characteristics and development of Chicano literary corpus. Letter grading.

150. Topics in Contemporary Studies. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 25 or 27. Exploration of main trends through Chicana and 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 included and discussed. Reading and analysis of number of important scholarly and critical statements pertaining to characteristics and development of Chicano literary corpus. Letter grading.


155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

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155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering period from first manifestations of Chicana artistic production in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.
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.

M165SL. Taking It to Street: Spanish in Community. (6) Reading or Chicano Studies M167SL Seminar, three hours; fieldwork, 10 hours. Enforced requisite: course 25 or 27. Service learning course to give students opportunity to use cultural and linguistic knowledge acquired in Spanish classes in real-world settings. Students required to spend minimum of eight to 10 hours per week at agreed site in Latino communities. P/NP or letter grading.

170. Topics in Media, Interdisciplinary, and Trans-historical Studies. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 25 or 27. Interrelation between print, visual, and live arts, and way they exist in mass media, new technologies, and different platforms. Possible topics include visual cultures in Latin America, Latin American and Spanish cinema, musical cultures and literature, live arts and performance in popular culture, three-dimensional modeling of material culture, and architecture of medieval Iberia. May be repeated for credit with topic change. P/NP or letter grading.

M172SL. Latinos, Linguistics, and Literacy. (6) (Same as Chicano Studies M170SL.) Seminar, four hours; field project, four to six hours. Recommended requisite: course 100A. In-depth study of various topics related to literacy, including differences in literacy, programs for adult pre-literate, 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.

175. Topics in Creative Writing and Translation. (4) Seminar, three hours. Requisite: course 25. Exploration of art of translation or creative writing. Guest speakers or instructors include professional literary translators, poets, novelists, playwrights, and film-makers who discuss theory, methodology, and practice of their art. May be repeated for credit with topic change. P/NP or letter grading.

187A-187B. Advanced Tutorial in Community and Cultural Studies. (4) (Same as Chicano Studies M170SL.) Tutorial, one hour; fieldwork, two hours. Enforced requisite: course 25 or 27. Designed as adjunct to upper-division course in Hispanic, Latin American 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.

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 courses. 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 in Spanish: Studies in Hispanic Literature and Linguistics. (4) Seminar, three hours. Limited to 15 junior/senior majors. Variable topics course with readings, discussions, and development of culminating paper. Consult Schedule of Classes or department counselor for topics to be offered in specific term. P/NP or letter grading.

191B. Variable Topics in Spanish: Studies in Hispanic Culture and Civilization. (4) Seminar, three hours. Advanced variable topics course that studies diverse aspects of Hispanic culture, civilization, and history. Classroom discussions, development of culminating paper, and examinations in Spanish. May be repeated for credit with topic change. P/NP or letter grading.

191C. Senior Capstone Seminar. (4) Seminar, three hours. Enforced requisites: courses 119, 120, and at least three courses toward major core requirements for majors. Limited to senior Spanish majors. Knowledge from previous coursework used to address current trends in current students work with one faculty member on one focused research topic. Culminating paper required. Letter grading.

195. Community Internships in Spanish. (4) Tutorial, one hour; fieldwork, 10 hours. Requisite: 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 with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Spanish. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study with lecture course instructor to explore topics to be arranged between faculty mentor and student. Assigned reading and tangible evidence of mastery of subject matter required. Eight units of courses 197 and/or 199 may be applied toward major requirements. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

198A-198B. Senior Honors Research in Spanish I, II. (4–2) Major directed research. Preparation, completion, and presentation of minimum of six upper-division major core courses with 3.7 grade-point average. Course 198A is enforced requisite to 198B. Limited to juniors/seniors. Development and completion of honors thesis under 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. Requisite: course 25. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. Eight units of courses 199 and/or 199 may be applied toward major requirements. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M200. Research Resources. (4) (Same as Portuguese M200) Seminar, three hours. Introduction to major research resources and use of research resources for graduate students. P/NP or letter grading.

M201A-M201B. Literary and Critical Theory. (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.

202A. Phonology. (4) Lecture, three hours. Study of the sound structure of Spanish and main phonological processes giving rise to surface representations. Bearing of phonological theory on study of meter.


M205A-M205B. Development of Portuguese and Spanish Languages. (4–4) (Same as Portuguese M205A-M205B.) Seminar, three hours. Interrelated study of historical development of Portuguese and Spanish languages from their origin in spoken Latin.

209. Dialectology. (4) Lecture, three hours. Major dialect areas of peninsular and American Spanish, with distinguishing features of each. Influence and contribution of cultural and historical features, including indigenious languages, to their formation.

211. Medieval Lyric Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish lyric poetry from the beginning to 1500.

222. Medieval Epic and Narrative Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish epic and narrative poetry from the beginning to 1500.

223. Medieval Prose. (4) Lecture, three hours. Readings of and lectures on Spanish prose from the beginning to 1500.

224. Poetry of the Golden Age. (4) Lecture, three hours. Readings of and lectures on Spanish poetry from 1500 to 1700.

225. Drama of the Golden Age. (4) Lecture, three hours. Readings of and lectures on the comedia.


228. The Enlightenment. (4) Lecture, three hours. Readings of and lectures on representative works of the period.

229. Romanticism. (4) Lecture, three hours. Readings of and lectures on representative works of the period.

230. Realism and Naturalism. (4) Lecture, three hours. Readings of and lectures on literary works, principally novels, from 1850 to 1899.

231. Major Currents in Modern Spanish Literature. (4) Lecture, three hours. Introduction to major literary currents, including symbolism, Parnassianism, and the Generation of 1898.

232. Spanish Prose Literature from 1898 to the Civil War. (4) Lecture, three hours. Readings of and lectures on representative essays, novels, and short stories of the period.

233. Spanish Prose Literature after the Civil War. (4) Lecture, three hours. Readings of and lectures on representative essays, novels, and short stories of the period.

234. Spanish Drama and Poetry from 1898 to the Civil War. (4) Lecture, three hours. Readings of and lectures on representative plays and poems.

235. Spanish Drama and Poetry after the Civil War. (4) Lecture, three hours. Readings of and lectures on representative plays and poems of the period.

236. Literature of the Spanish Conquest. (4) Lecture, three hours. Readings of and lectures on chronicles, poems, and indigenous accounts of the Spanish Conquest.


241A-241B. Contemporary Spanish-American Short Story. (4–4) Lecture, three hours. Study of important short story writers from modernism to the present.

243A-243B. Contemporary Spanish-American Poetry. (4–4) Lecture, three hours. Intensive study of important poets of Spanish America from modernism to the present.

244A-244B. Contemporary Spanish-American Novel. (4–4) Lecture, three hours. Study of important novelists from modernism to the present.


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) ballads 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.

291A-291B. Colonial Studies Research Group. (2–2) Research group meeting, two hours. Limited to graduate students. Discussion and analysis of colonial manuscripts. Specific topics vary from year to year. Production of student papers for publication and/or presentation at conferences or symposia.

291A. S/U grading; 291B. Requisite: course 291A. May be repeated for credit. S/U or letter grading.

296. Graduate Research Group. (2) Research group meeting, two hours. Limited to graduate students. Designed to bring together graduate students in seminar setting with one or more faculty members to discuss and critique individual research projects, especially dissertation research. S/U grading.

310. Teaching Spanish in Elementary School. (4) Lecture, three hours.


373. Teaching Composition. (2) Designed for graduate students. Seminar on teaching writing in Spanish language courses. Introduction to composition theory, instruction and practice in integrating writing into curriculum, setting goals and standards, designing and sequencing course materials, evaluating and commenting on papers. May not be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

490. Using Technology in Foreign Language Classroom. (4) Discussion, two hours. Designed for graduate students. Theory and practice of using technology in foreign language classrooms. Computer applications that facilitate instruction of grammar, discourse, culture, and composition, as well as evaluation and communication between students and instructor. S/U grading.

569. Directed Individual Study or Research. (4 or 8) Tutorial, to be arranged. Study or research in areas or subjects not offered as regular courses. No more than 4 units may be applied toward MA course requirements. S/U or letter grading.

597. Preparation for Graduate Examinations. (4 to 12) Tutorial, to be arranged. Preparation: official acceptance of candidacy by department. Individual preparation for MA comprehensive examination or PhD qualifying examinations. May be taken only once for each degree examination and only in term that comprehensive or qualifying examinations are to be taken. S/U grading.


256A. 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.

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.

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SPEECH
See Communication

STATISTICS

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Ker-Chau Li, PhD
Kevin F. McCullogh, PhD
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Janice L. Reiff, PhD (Waldo W. Neikirk Term Professor)
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Robert L. Gould, PhD

Senior Lecturers
Nicolai Christou, PhD
Maryam M. Esfandiari, PhD
Vivian Lew, PhD
Juana Sanchez, PhD

Lecturers
Akram M. Almohalwas, PhD
Maria Cha, PhD
Miles S. Chen, PhD
Michael Tsang, PhD
Linda A. Zanontian, PhD

Adjunct Associate Professor
Ivaylo D. Dinov, PhD

Adjunct Assistant Professor
Katherine M. Muller, 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 has the following learning outcomes:

- Ability to restate an investigative question in terms of a statistical model or algorithm
- Verbally communicate statistical results clearly to a non-technical audience
- Successfully relate theoretical concepts to a real-world problem in a written report
- Demonstrated ability to find research literature appropriate to the investigative task
- Deliver reproducible statistical analyses using accepted practices of the research community
- Demonstrated ability to verbally and orally communicate statistical results to both technical and non-technical audiences

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 their results to nontechnical audiences.

### Undergraduate Courses

Students interested in either the major or minor in Statistics should meet with the student affairs officer early in their careers. Students who have completed Mathematics 33A, Statistics 20, and at least one course from Statistics 10 through 13 may declare a premajor.

### Statistics BS

#### Capstone Major

The Statistics major is designed to provide a general introduction to the practice of statistics for students who intend to pursue study at the graduate level or seek employment in industry or government. Courses are selected to provide sufficient theoretical background for future graduate-level research work, exposure to modern techniques and practices, and experience in fields of application.

It is strongly recommended that students, in conjunction with the BS degree, pursue a minor in a substantive discipline that applies statistics. Students must consult with the undergraduate faculty adviser to ensure that the minor selected is one in which statistics is applied.

### Learning Outcomes

The Statistics major has the following learning outcomes:

- Ability to restate an investigative question in terms of a statistical model or algorithm
- Verbally communicate statistical results clearly to a non-technical audience
- Successfully relate theoretical concepts to a real-world problem in a written report
- Demonstrated ability to find research literature appropriate to the investigative task
- Deliver reproducible statistical analyses using accepted practices of the research community
- Demonstrated ability to verbally and orally communicate statistical results to both technical and non-technical audiences

### Statistics Premajor

Incoming freshman and transfer students may be admitted as Statistics premajors on acceptance to UCLA. Premajor students must apply for the major after completing 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 requirements must be in units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

### Graduate Study

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

### Graduate Degrees

The Department of Statistics offers Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Statistics; and a self-supporting Master of Applied Statistics (MAS) degree.

### Statistics

### Lower-Division Courses

10. Introduction to Statistical Reasoning. (5) Lecture, three hours; discussion, one hour; computer laboratory, two hours. Preparation: three years of high school mathematics. Not open for credit to students with credit for course 11, 12, 13, 14, or former course 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 Geog-   

13. Introduction to Statistical Methods for Life and  

14. Fiat Lux Freshman Seminars. (1)   

15. Introduction to Probability with Applications to  

16. Upper-Division Courses  

100A. Introduction to Probability. (4) Lecture,  

100B. Introduction to Mathematical Statistics. (4)  

100C. Linear Models. (4) Lecture, three hours; dis-  

101A. Introduction to Data Analysis and Regres-  

101B. Introduction to Design and Analysis of Ex-  

101C. Introduction to Statistical Models and Data  

102A. Introduction to Computational Statistics  

102B. Introduction to Computation and Optimiza-  

102C. Introduction to Monte Carlo Methods. (4)  

99A. Honors Contracts. (1) Tutorial, three hours.  

99B. Honors Contracts. (1) Tutorial, three hours.  

99HC. Honors Contracts. (1) Tutorial, three hours.  

99ST. Research Program. (1 to 2) Tutorial (su-  

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Introduction to statistical thinking and un-   

disciplines. Culminating project may be required. P/   

and discussions designed to introduce students to   

proximations of solutions to complex problems using   

Topics include conditional probability and   

readings, that are useful in wide variety of scientific appli-   

Emphasis on applications in geography and environ-   

Introduction to use of R, including data management,   

Introduction to computational methods and computationally intensive methods for   

of sampling, one- and two-   

Honors contracts give students opportunity to solve real data analysis problems for   

designed to introduce students to current statistical consulting research and fieldwork   

Exploration of topics in greater depth through supplemental readings, papers, or other   

Exploitation of interesting discrete probability problems, that are useful in wide variety of scientific applications. Topics include conditional probability and conditional expectation, combinatorics, laws of large numbers, central limit theorem, Bayes theorem, uni-   

Introduction to probability distributions, role of variation in statistical procedures, and bootstrapping for statistical in-   

Letter grading.   

Letter grading.   

Enforced requisite: course 10A and 10B. Survey sampling,   

Sums of squares principle, testing general linear hy-   

randomized design and ANOVA, multiple comparisons,   

inference procedures, Gaussian/   

Markov process, and Brownian motion.   

Enforced requisite: course 101A. Fundamentals of collecting data, including components of experi-   

Enforced requisite: course 101B. Designed for seniors/juniors. Applied regression analysis, with em-   

generalized linear model (e.g., logistic regression). Special attention to modern extensions of   

Lecture, three hours. Enforced requisite: course 101A. Fundamentals of collecting data, including components of experi-   

Lecture, three hours; discussion, one hour. En-   

Enforced 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-   

Lecture, three hours; discussion, one hour. En-   

Lecture, three hours; discussion, one hour. En-   

Lecture, three hours; discussion, one hour. En-   

Lecture, three hours; discussion, one hour. En-   

Lecture, three hours; discussion, one hour. En-   

Lecture, three hours; discussion, one hour. En-   

Lecture, three hours; discussion, one hour. En-   

Lecture, three hours; discussion, one hour. En-   

Lecture, three hours; discussion, one hour. En-   

Lecture, three hours; discussion, one hour. En-   

Courses 100B and 100C. Mathemat-   

Introduction to computational methods and computationally intensive methods for   

Introduction to computational methods and computationally intensive methods for   

Enforced requisite: course 102A. Limited to junior/senior statistics majors and minors. Use of Python and other technologies for data analysis and data science. Focus on programming with Python and selection of its libraries—NumPy, pandas, Matplotlib, and scikit-learn—for purpose of data processing, data cleaning, data analysis, and machine learning. Other technologies covered include Jupyter notebook, Structured Query Language (SQL), and git. Letter or P/NP grading.   

Courses 100B and 100C. Mathemat-   

Enforced requisite: course 101A. Fundamentals of collecting data, including components of experi-   

Enforced requisite: course 101A. Fundamentals of collecting data, including components of experi-   

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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 psycho- logical, 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, three hours; discussion, one hour. Designed for upper-division and graduate students in social or life sciences and those who plan to major in Statistics. Topics include methods of sampling from finite populations, sources of sampling and estimation bias, and methods of 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. Data structures, sampling and experimental design, computer programming, mathematical physics, or statistics course. Recommended requi- site: Program in Computing 20A. Probability and statistics topics in data-driven and interactive manner using open Internet resources. Varieties of data, study-designs, and applications arising from biomed- ical, research, and simulated data to prepare students for innovative multidisciplinary research. Use of Statistics Online Computational Resource (SOCR), P/NP or letter grading.

C161. Introduction to Pattern Recognition and Ma-chine Learning. (4) Lecture, three hours. Requisites: course 100B, Mathematics 33A. Introduction to pattern recognition and machine intelligence designed for advanced undergraduate and graduate students. Concurrently scheduled with course C261. P/NP or letter grading.

170. Introduction to Time-Series Analysis. (4) Lecture, three hours; discussion, one hour. Requisite: course 100C or 101B. Exploration of standard methods in temporal and frequency analysis used in analysis of time sequences data. Examples pro- vided throughout, and students implement techniques discussed. P/NP or letter grading.

M171 Introduction to Spatial Statistics. (4) (Same as Geography M171.) Lecture, three hours; labora- tory, one hour. Requisite: one course from 10, 11, 12, 13, or 14. Introduction to methods of measurement and interpretation of geographic distributions and as- sociations. P/NP or letter grading.

C173. Applied Geostatistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100C (may be taken concurrently) or 101B. Geostatistics can be applied to many problems in other disciplines such as hydrology, traffic, and air and water pollution, epi- demiology, geography, waste management, forestry, oceanography, meteorology, and agri- culture and, in general, to every problem where data are observed at geographic locations. Acquisition of knowledge from different areas that can be used to analyze real spatial data problems and to connect geostatistics with geographical information systems (GIS). Concurrently scheduled with course C273. P/NP or letter grading.

175. Statistics for Spatial Data. (4) Lecture, three hours; discussion, one hour. Statistical theories used in analyzing spatial data. Study of three types of spa- tial data: geostatistical data, lattice data, and point patterns, with emphasis on applications and analysis of spatial data using open-source statistical software R, P/NP or letter grading.

C180. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Enforced requi- sites: course 100B, Mathematics 32B. Designed for juniors/seniors. Introduction to statistical inference based on use of Bayes theorem, covering founda- tional aspects of the theory, and computational issues. Topics include Stein paradox, nonpara- metric 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) Sem- inar, one hour. Development and perfection of student written communication skills through variety of scien- tific writing and reading assignments. Objectives and techniques of scientific writing and practice with dif- ferent forms of professional writing. Analysis of quality of writing, including control, clarity, grammar, and me- chanics. P/NP or letter grading.


186. Careers in Statistics. (1) Seminar, one hour. Discussion of applications of statistics by weekly guest speakers. Topics include applications to legal questions, economic decisions, arts, environment, and other fields, with some emphasis on career paths in statistics. 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 stu- dents. Honors content noted on transcript. P/NP or letter grading.

18HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in computer science. 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 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

195. Community or Corporate Internships in Sta- tistics. (1 to 4) Directed research in supervised setting in community or corporate organization. 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) Tutor- ial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract re- quired. P/NP or letter grading.

Graduate Courses

200A. Applied Probability. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Mathematics 170A. Limited to graduate statistics stu- dents. Simulation, renewal theory, and selected topics from queuing, reliability, speech recogni- tion, 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 non- parametric estimation problems. Emphasis on non-as- ymptotic bounds via concentration inequalities. S/U or letter grading.

201A. Research Design, Sampling, and Analysis. (4) Lecture, three hours; discussion, one hour. De- signed for graduate students. Basic principles, ANOVA and ANCOVA, block designs, unequal probability sampling, regression estimation, stratified sampling, and cluster sampling. S/U or letter grading.

210B. Statistical Modeling and Learning. (4) Lecture, three hours; discussion. Requisites: courses 200A, 201A. Methods of model fitting and parameter estimation, with emphasis on regression and classification techniques, including those from machine learning. Credit given for a course in statistics taken elsewhere. Concurrently scheduled with course C283. P/NP or letter grading.

210C. Advanced Modeling and Inference. (4) Lecture, three hours; discussion, one hour. Strongly rec- ommended requisites: courses 200B, 201B. Designed for graduate students. Introduction to advanced topics in statistical modeling and inference, including Bayesian hierarchical models, missing data problems, mixture modeling, additive modeling, hidden Markov models, and Bayesian networks. Coverage of compu- tational methods used and developed for these models 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 program- ming environments/languages such as UNIX, UNIX shell, Python, R, and Processing and data technolo- gies 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. Topics include program- ming environments/languages such as UNIX, UNIX shell, Python, R, and Processing and data technolo- gies 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.
202C. Monte Carlo Methods for Optimization. (4) Lecture, three hours; discussion, one hour. Recommended prerequisite: course 200B. 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 course 203A.) Lecture, three hours. Recommended prerequisite: course 202B. Asymptotic properties of tests and estimates, consistency and efficiency, likelihood ratio tests, chi-squared tests. S/U or letter grading.

204. Nonparametric Function Estimation and Modeling. (4) Lecture, three hours. Required prerequisite: course 200A. Introduction to many useful nonparametric techniques such as nonparametric density estimation, nonparametric regression, and hypothesis testing for statistical modeling. Some semiparametric techniques and functional data analysis. Letter grading.

205. Hierarchical Linear Models. (4) Lecture, three hours. Designed to introduce 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.


216. Social Statistics. (4) Lecture, three hours. Preparation: some knowledge of basic calculus and linear algebra. Requisites: courses 100A and 100B, or 101B and 101C, or one course from 10, 11, 12, 13 and one upper-division statistics course using regression. Designed for social sciences graduate students and advanced undergraduate students seeking training in data issues and methods employed in social sciences. Concurrently scheduled with course 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 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.

221. Time-Series Analysis. (4) Lecture, four hours. Recommended: some experience in statistical computation; background in calculus; enrollment in a course for numerical time-series data. Topics include temporal and frequency analysis, wavelets, and chaos. Implementation of discussed techniques using real data sets. Letter grading.

M222. 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, geography, seismology, demography, and environmental sciences. S/U or letter grading.


M231. Pattern Recognition and Machine Learning. (4) (Same as Computer Science M276A.) Lecture, three hours; discussion, one hour. Designed for graduate students. Fundamental concepts and algorithms for pattern recognition and machine learning that are used in computer vision, image processing, speech recognition, data mining, statistics, and artificial intelligence. Topics include Bayesian decision theory, parametric and nonparametric learning, clustering, complexity (VC-dimension, MLD, AIC), PCA/ICA/TPCA, MDS, SVM, boosting. S/U or letter grading.


M232B. Statistical Computing and Inference in Vision and Cognition. (4) (Same as Computer Science M266B.) Lecture, three hours. Preparation: basic statistics, linear algebra (matrix analysis), computer vision, graphs and probability. 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 methods, belief propagation, parallel differential Equations. S/U or letter grading.

232C. Cognitive Artificial Intelligence. (4) Lecture, three hours. Recommended requisites: courses M232A, M232B. Demonstration of how to build artificial intelligence by following principles of human intelligence revealed by cognitive science, including learning from small data, expressing causality of physical processes, acquiring understanding of models for intuitive social interactions. Draws from statistical modeling, cognitive science, artificial intelligence, computer vision, and robotics. S/U or letter grading.

236. Introduction to Bayesian Statistics. (4) Lecture, three hours. Recommended prerequisite: course 200A or 200B. Designed for graduate students. Introduction to statistical inference based on use of Bayes theorem, covering foundational aspects, current applications, and computational issues. Topics include Stein paradox, nonparametric Bayes, and statistical learning. Examples of applications vary according to interests of students. Concurrently scheduled with course C180. S/U or letter grading.

C236. Introduction to Bayesian Inference. (4) Lecture, three hours. Recommended prerequisite: course 200A or 200A. Formulation of vision as Bayesian inference using models developed for designing artificial vision systems. Application to statistics, they define ideal observer models that can be used to model human performance and serve a benchmark. S/U or letter grading.


M242. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M208D and Psychology M257.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be generated by unmeasured variables, including latent variable analogues of traditional methods in multivariate analysis. Causal models, structural equation modeling, model specification, and selection. Measurement models such as confirmatory, higher-order, and structure-means factor analysis. 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.


246. Statistical Model Selection. (4) Lecture, three hours. Preparation: basic knowledge of calculus, linear algebra, and computer science. Modern methods for constructing and evaluating statistical models, including non-Bayesian and Bayesian statistical modeling approaches. Discussion of theoretical parts and data analysis. Letter grading.
CM246. Applied Sampling (4) (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. (4) (Same as Health Statistics M251.) Lecture, 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. (4) (Same as Bioinformatics M223 and Bioinformatics M271.) Lecture, three hours; discussion, one hour. Preparation: one hour of introductory probability limits (Mathematics M211). Requisite: course 100A or 200A or Bioinformatics M221. 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 basic statistical concepts and use of statistical inference to solve biological problems. Letter grading.


271. Probabilistic Models of Visual Cortex. (4) Seminar, three hours. Requisite: course 100B or Mathematics 33A. Recommended: Computer Science 187 and familiarity with computer models of mammalian visual cortex, with topics in low-, mid-, and high-level vision. Discussion of relevant evidence from anatomy, electrophysiology, imaging (e.g., fMRI), and psychophysics. Concentration on mathematical modeling of these phenomena, taking into account recent progress in probabilistic models of computer vision and developments in machine learning. S/U or letter grading.

C273. Applied Geostatistics. (4) Lecture, three hours; discussion, one hour. Geostatistics can be applied to problems in other disciplines such as hydrology, traffic, air and water pollution, epidemiology, economics, geography, waste management, forestry, oceanography, meteorology, and agriculture and, in general, to every problem where data are observed at geographic locations. Acquisition of knowledge from different areas that can be used to analyze real spatial data problems and to connect geostatistics with geographic information systems (GIS). Concurrently scheduled with course C173. S/U or letter grading.


285. 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.

M286. Seminar: Statistical Problem Solving for Population Biology. (2) (Same as Ecology and Evolutionary Biology M217.) Seminar, two hours. Preparation: for graduate students. Statistical solutions to complex data analysis and/or experimental design problems encountered by biology graduate students in their own research. S/U grading.

287. Seminar: Gene Expression and Systems Biology. (2) Seminar, two hours. Preparation: for graduate students (open to undergraduate students with consent of instructor). Working knowledge of basic concepts such as genomic sequencing, microarray gene expression, Chromatin-Immunoprecipitation DNA chip (ChIP-chip), and mass spectrometry (MS/MS) proteinomics, 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.

290. Current Literature in Statistics. (2) Seminar, one hour. Topics in various statistical areas by means of lectures and informal conferences with staff members. S/U grading.

291SL. Service Learning for Graduate Statistical Consulting. (4) Research group meeting, two hours; fieldwork, two hours. Preparation: Exposure to realistic statistical and scientific problems that appear in typical interactions between statisticians and researchers, with lectures centered on case studies presented by faculty members and invited speakers from business and academic fields. Applied regression analysis and design of experiments, together with basic statistical program packages; preparation and written reports required. S/U or letter grading.

292. 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.

294. Scientific Writing. (2) Seminar, two hours. Development of skills for presentations and reports 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.


297SL. Service Learning and Community Learning for Statistics. (2 to 4) Seminar, three hours; fieldwork, 10 hours. To further knowledge by applying what students have learned in class to an actual service work setting under guidance of faculty mentor. Interaction with nonprofit organizations can be either community service or academic research. 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.


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 data forms of various types, working with databases, data cleaning, validation, transformation, exploratory data analysis, and introduction to data visualization and data mining techniques. Exploration of different database security, ethics, and scalability. Introduction to use of variety of software and languages, such as Python, SQL, Stata, SAS, R. S/U or letter grading.

411. Multivariate Statistical Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 20, and/or 101A, or equivalent level of discipline. Limited to Master of Applied Statistics students. Offers students working knowledge of basic concepts underlying most important multivariate techniques, with overview of actual applications in various fields, and with experience in using such techniques on problem of their own choosing. Addresses underlying assumptions and problem inclusions. Reasonable level of competence in both statistics and mathematical techniques is required. Letter grading.

412. Advanced Regression and Predictive Modeling. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Often we are interested in making inferences and predictions from data, either by (1) estimating particular meaningful parameters of models or (2) finding best fitting model that we can use to produce useful outputs such as predictions or counterfactual estimates. Focus on what is done when linear models are not appropriate and may produce misleading estimates. Generalized linear models and maximum likelihood methods as essential tools all statistics students should understand. Examination of shift gears to ex-
420. Causal Inference in Social Science Practice. (4) Lecture; three hours; discussion, one hour. Requisite: course 400. Recommended requisites: courses 401, 402, 403, 404, 405. Limited to Master of Applied Statistics students. Variety of designs and methods, including experiments, matching, regression, panel methods, difference-in-differences, synthetic control methods, instrumental variable estimation, regression discontinuity designs, and sensitivity analysis. Basic skills from probability and statistics. Application drawings from various fields including political science, public policy, economics, and sociology. Skills developed apply to any discipline in which investigators seek to make causal statements but cannot fully randomize treatment. Letter grading.

485. Statistics Programming and Analysis with R. (1 to 4) Seminar, one hour. Teaching of researchers and data analysts in use of R, software environment for statistical computing and graphics, in applied settings and taught in three tracks—data to graphics in R, basic statistical analysis in R, and advanced topics in R. S/U or letter grading.

495A. Teaching College Statistics. (2) Seminar, two hours; intensive training at beginning of Fall Quarter. Required of all potential departmental teaching assistants and new PhD students. Practical and theoretical issues in teaching of statistics. S/U grading.

495B. Teaching College Statistics. (2) Seminar, two hours. Weekly discussion and intensive training for all first-year teaching assistants that addresses practical and theoretical issues in using technology to teach statistics, including use of statistical software as education tool. S/U grading.

496. Statistics Internship. (2 to 12) Tutorial, four hours; fieldwork, two hours. For students who are interested in gaining practical experience by applying various models on real stock market data using package stockPortfolio of open source statistical software R. S/U or letter grading.

497. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Undergraduate and graduate students. May be repeated for credit. S/U grading.

498. MAS Thesis Research. (2 to 8) Tutorial, four hours. Research on project for MAS students. May be repeated for credit. S/U or letter grading.

499. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Undergraduate and graduate students. May be repeated for credit. S/U grading.

500. MS Thesis Research. (2 to 12) Tutorial, to be arranged. Topics will be selected by the student and the advisor. May be repeated for credit. S/U grading.


Richard J. Shemin, MD (Robert and Kelly Day Professor of Cardiothoracic Surgery), Executive Vice Chair
Charles Chandler, MD, Vice Chair, Surgical Services
Timothy R. Donahue, MD, Vice Chair, Surgical Cancer Care
O. Joe Hines, MD (Robert and Kelly Day Professor of General Surgery), Vice Chair, Clinical Practice and Strategic Planning; Vice Chair, Administration
Clifford Y. Ko, MD, MSHS (Robert and Kelly Day Professor of Surgical Outcomes), Vice Chair, Clinical Research
Jerzy W. Kupiec-Weglinski, MD, PhD (Paul I. Terasaki Professor of Surgery), Vice Chair, Basic Research
Areti Tiliou, MD, Vice Chair, Surgical Education
Robert S. Bennion, MD, Vice Chair, Olive View-UCLA
Christian M. de Virgilio, MD, Vice Chair, Harbor-UCLA
Bruce L. Gewertz, MD, Vice Chair, Cedars-Sinai
Matthew G. Stelzner, MD, Vice Chair, VA Greater Los Angeles Healthcare System
Eleby Washington, MD, Vice Chair, Drew University

Scope and Objectives
The Department of Surgery instructs medical students during all four years of medical school. Students are expected to obtain broad knowledge of diseases treated by surgical means and to understand the pathophysiology of these conditions, the therapy that may be applied, and the anticipated results of treatment. They are also encouraged to learn about the effects of surgical illness on the patient and the patient’s family and environment.

Third-year students participate in one 12-week clerkship in clinical surgery and are assigned to rotations at a combination of Reagan UCLA, Cedars-Sinai Medical Center, Harbor-UCLA, West Los Angeles VA, Olive View-UCLA, Kaiser Permanente, and Santa Monica-UCLA medical centers. Each faculty has a special orientation depending on the patient population and the individual staff. During the fourth year students may elect to take additional clinical rotations with increasing responsibilities. Additional in-depth elective courses are offered in collaboration with other departments.

For more details on the Department of Surgery and courses offered, see the department website.

Surgery
Lower-Division Courses
19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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

Study of Religion
See Religion, Study of

Surgery
David Geffen School of Medicine
72-131 Center for Health Sciences Box 951749 Los Angeles, CA 90095-1749

Surgery
310-206-2567

Ronald W. Busuttil, MD, PhD (William P. Longmire, Jr., Professor of Surgery), Executive Chair
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
School of Theater, Film, and Television
303 East Melnitz Building
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Los Angeles, CA 90095-1622
Theater
310-825-7008
Department e-mail
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Neil P. Jampolis, BFA
Chrisi Karvoniaides-Dushenko, MFA
Suk-Young Kim, PhD
Brian E. Kite, MFA
Deborah Nadooolman Landis, PhD
Rich S. Rose, MFA
Dominic A. Taylor, MFA
José Luis Valenzuela, MFA
Edit E. Villameural, MFA

Professors Emeriti
Alan M. Armstrong, MFA
Sue-Ellen Case, PhD
Patricia M. Hater, PhD
Robert H. Hethmon, PhD
Anna Krajewksa-Wieczonek, PhD
Michael S. McLain, PhD
Joanne T. McMaster, MFA
Mel Shapiro, MFA
Carol J. Sorgenfrei, PhD
William D. Ward, MFA
William T. Wheatley, PhD
Margaret L. Wilbur, MFA

Associate Professors
Sean A. Metzer, PhD
Thomas K. O’Connor, MFA
Joseph M. Olivier, MFA

Assistant Professors
Michelle L. Carriger, PhD
Sylvan M. Oswald, MFA
Marianne A. Spint, MFA

Senior Lecturer SOE
Thomas J. Orth, Emeritus

Lecturers
Silvia Baker
Cheryl Baxter-Ratiff
Robert A. Beltran
Scott W. Brick
Elizabeth A. Brohm
Amy E. Chaffee
Ross A. Chitwood
Sara R. Clement
Andrew S. Dalzell
Perry M. Daniel, MFA
John E. Dexter
Michael F. Donovan
Kitty Doris-Bates
Mary Jo DuFrey
Joshua Epstein
Sharna L. Fabiano
Anthony Fanning
Thomas H. Fitzgerald
Gina A. Flanagan

John A. Garofolo
Jill M. Gold
David M. Gorsheim
Sheldon Markham
Leona Maria
Jeffrey Maynard, BA
Roderick B. Menzies, MFA
Jane Ruhn
Angela R. Scott
Nathan M. Schroeder
Peter J. Shushtrui, MFA
Toni L. Smith, MFA
Jonathan Snipes
Natsuo Tomita
Jonathan Wang, BS, MSOM
Mary Lynn B. Wisner
Mark Worthington
Alexandra R. Wright, MFA

Adjunct Professors
Dan T. Belzer, MFA
F. Nicholas Gunn
Peggy Hickey-Perez
Lainie Kazan
Linda Kerns
Jeremy L. Mann
Jean-Louis Rodrigue
Paul M. Wagner

Adjunct Associate Professors
Marilyn E. Fox
Ed J. Monaghan, MFA
Judith E. Moreland, MFA
April Shawhan

Adjunct Assistant Professor
Raquel M. Barreto, MFA

Visiting Professor
Jon V. Jory

Visiting Assistant Professor
Tim Robbins

Visiting Assistant Professor
Jessica Kubzansky

Academic Administrator
Daniel A. Ionazzi, Jr., MBA

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) musical theater exigency may consult their advisor at the beginning of each year to plan their upper-division course work for the emphasis they wish to pursue. Each major must be completed within four years from the date of initial registration and the completion of the requirements. Transfer credit will be calculated on the transcript and diploma.

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, 146A, 146B, 146C, 149, 195. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to department approval.

Each minor course must be taken for a letter grade, and students must have an overall grade-point 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 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 Candidae in Philosophy (CPhil) and Doctor of Philosophy (PhD) degrees in Theater and Performance Studies.

Theater
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, 146A, 146B, 146C, 149, 195. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to department approval.

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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.

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) musical theater exigency may consult their advisor at the beginning of each year to plan their upper-division course work for the emphasis they wish to pursue. Each major must be completed within four years from the date of initial registration and the completion of the requirements. Transfer credit will be calculated on the transcript and diploma.

11. Approaches to Interpretation of Theater and Performance: Global Perspective. (9) Seminar, four hours. Introduction to basic methods of interpretation in theater and performance throughout world. Topics illustrated by faculty members and guest speakers, visits to off-campus theaters and reading of contemporary plays. Letter grading.

12. Introduction to Performance. (4) Lecture, two hours; studio, four hours. Investigation of phenomenon of performance and role of performer in theatrical 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, three hours. Provides base for subsequent study in theater. Development of techniques of play reading and habits of scholarship useful to further study in each of theater’s subdisciplines, including acting, directing, design, playwriting, and critical study. Letter grading.

14A-14B-14C. Introduction to Design. (5–5–5) Lecture, three hours; studio, six hours. Exploration of visual 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 present and 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.


25C. Movement and Combat I. (1) Studio, three to four hours. Physical awareness for actors, concentration on warm-up, concentration on balance and 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 importance of rhythm, timing, delivery, speech, and body. Comedy and vaudeville traditionally allowed for freedom, 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, dance, storytelling, clowning, magic, design, and tumbling/stunts, and to build overall confidence/ease in comic performance skills. P/NP or letter grading.

28A-28B-28C. Acting, Voice, and Movement Workshops I. (2 each) Studio, three to six hours (28A-28B) 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 theater minors and other nonmajors. Exploration and development of creative writing skills for one or more of various forms of entertainment media. May be repeated once. Letter grading.


35A-35B-35C. Singing for Musical Theater I. (1–1–1) Studio, three hours. Exploration of musicianship 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 to 8) Studio, 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, four hours. Exploration of community and corporate internship experience. May be taken for maximum of 8 units. Letter grading.

716. Theater / 717. Film, Video, and Digital Media. May be taken for maximum of 8 units. Letter grading.

101B. Reconstructing Theatrical Past. (5) Lecture, three hours; discussion, one hour. Reconstructing theater is understood in several ways: construction of performance, development of new Globe and of specific productions and traditions such as neoclassicism that seek to reinstate classical traditions. Letter grading.

102C. Deconstructing Theater. (5) Lecture, three hours; discussion, one hour. Exploration of deconstructive practices such as fragmentation, abstraction, and absurdism, with focus on theatrical movements, directorial approaches, cultural translations, and new forms. Letter grading.

102B. Theater of Northeast Asia. (5) Lecture, three hours. Examination of representative theatrical genre from various geographical areas in Northeast Asia to illustrate importance and contribution that theater plays in society. Letter grading.

28E-28F. Acting, Voice, and Movement Workshops I. (28E-F) Lecture, three hours. Study of beginning acting techniques, archive practices, and performance traditions in terms of how they were produced, including training techniques, archive practices, and forms of history. Examples may include classical Greek tragedy, Noh and kabuki, Za Za Cuang, and summer stock practices in the United States. Letter grading.

Upper-Division Courses

101A. Making Tradition. (5) 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 may include classical Greek tragedy, Noh and kabuki, Za Za Cuang, and summer stock practices in the United States. Letter grading.

103A. African American Theater History: Slavery to Mid-1800s. (4) Same as African American Studies M103A) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from slavery to mid-1800s. Letter grading.

103B. African American Theater History: Minstrel Stage to Rise of American Musical. (4) Same as African American Studies M103B) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from minstrel stage to rise of American musical. Letter grading.


103D. Contemporary Chicano Theater: Beginning of Chicano Theater Movement. (5) Same as Chicano 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.

103E. 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 sociohistorical context out of which plays were created that illustrates development of African American playwrights and their significant involvement in creation of diversified African American theatrical tradition. Letter grading.


103J. Israel and Palestine: Communities, Conflicts, Cultures, and Arts in Middle East. (4) Lecture, three hours. No background on or prior interest in history or region 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 re-envisioned throughout history. It is at once real and surreal, stunted and fragile, all-enduring and ephemeral. Examination of selected works of litera- ture, performance, visual art, film, and media by Is- rael and Palestinian artists, as well as Western artists with interest in region. Looking beyond headlines and facile cultural cliches for deeper insights art can offer in cultural conflict that is large, to emerge with surprising conclusions. Letter grading.


104D. New Playwrights, New Playwriting. (5) Seminar, three hours. Required for students in playwrighting 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 dramaturgy; exploration of practice of different styles of acting, directing, and design that playwrights of today draw from. Letter grading.

C104E. History of Design Decor Part I: Architecture and Decor—Antiquity to Early Neoclassical. (4) Lecture, four hours. Course 14A, 14B, 14C. Study of pre-Renaissance architectural and inte-rior decor as manifestation of cultural, social, econ- omic, 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.

C104F. History of Design Decor Part II: Architecture and Decor—Industrial Revolution to 21st Cen- tury. (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 C404F. Letter grading.

C104G. History of Design for Performance Produc- tion Part I: Historic Costume from Prehistoric to Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study 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.

C104H. 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 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 with global emphasis. May be repeated once for credit. Concurrently scheduled with course C404H. Letter grading.

C104J. History of Design for Performance Production: Selected Topics of Decor and Costume De- sign History. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study 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 with global emphasis. May be repeated once for credit. Concurrently scheduled with course C404J. Letter grading.
105. Main Currents in Theater. (5) Lecture, three hours. Critical examination of leading theories of theater from 1887 to present. Study and discussion of modern styles of production, P/NP or 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. (6) Seminar, four hours; field trip, 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 theaters 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 College M109.) 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 performance are explored in musical and dramatic performance. Letter grading.


113. 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 to five hours. Historical and critical depictions of disability in theater. Topics may include introduction to disability studies; race, gender, and disability; representation of disability in theater; and more. May be repeated for credit on topic or instructor change. 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. (2-4) Lecture, four hours; other, to be arranged. Practical application of creative drama process. Exploration of interrelationships of arts to traditional disciplines of learning. May be repeated once for credit. P/NP or letter grading.

118C. Interactive Theater. (4) Laboratory, four hours. Active, problem-solving process of theater exercises and games designed to examine racial stereotypes, sexual harassment, social issues, action, 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 intellectual development, exercises and games nurture skills and attitudes useful in facilitating discussions between actors and audience participants. Use of techniques of sensory awareness, movement, pantomime, improvisation, and characterization. Letter grading.

118D. ArtsBridge Teaching Practicum. (4) Lecture, four hours. Requisites: courses 118A, 118B. Development of artsBridge to integrate theater with specific core curricula. Collaboration with classroom teacher to identify core subject to be taught. Language arts, science, history, mathematics, and social sciences possible curricular areas. Development of evaluation tools to measure effectiveness of incorporating theater materials into curriculum. Weekly meetings to discuss teaching strategies and prepare written lesson plans that incorporate California Teaching Content Standards, objectives, motivation, detailed implementation of lesson plan, and ideas for assessment. Classroom evaluation is 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) Lecture, six hours. Exploration of acting and performance in film. Through screenings of performance-driven films, class discussion, and acting exercises, examination of methods, styles, and performances of some of world's most highly regarded actors. Examination of work, P/NP or letter grading.

120C. Acting and Performance in Film. (5) Lecture, six hours. Exploration of acting and performance in film. Through screenings of performance-driven films, class discussion, and acting exercises, examination of methods, styles, and performances of some of world's most highly regarded actors and their work. P/NP or letter grading.

121. Acting Workshop. (2) Studio, two hours. Requisites: courses 24A, 24B, 25. Designed to give further insight into critical and creating aspects of short and full-length plays and skills needed to design makeup and hair for film and television productions and skills needed to design makeup artist and hairstylist roles in current film, television, and theater productions. Exploration of makeup artist, actors, production designer, and hairstylist roles in current film, television, and theater productions and skills needed to design makeup and hair for film and television productions. Concurrently scheduled with course 222E. Letter grading.

122. Character Development through Makeup and Hair Design. (2) (Formerly numbered 122.) Studio, four hours. Examination of importance of makeup and hair design to theater and film. History and overview of hair and makeup in fashionable and motion picture. 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 productions. Concurrently scheduled with course 222E. 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. Exploration of physical partnering in performance, within established methodology. Topics may include contact improvisation, vintage dance, alidko. 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.


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; examination of distinctiveness and interrelations among these arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently scheduled with course 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 skills needed to design makeup and hair for film and television productions. Concurrently scheduled with course CM129. P/NP or letter grading.

130C. Writing for American Musical Theater. (4) Lecture, two hours. Studio, four hours. Techniques of writing and composition and application of those 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 collaboration, group interaction, and professional process. May be taken for maximum of 8 units. Concurrently scheduled with course C433A. Letter grading.


C135A. 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.

C135B. 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.

C135C. Musical Theater Vocal Styles: Legitimate/Operaetta. (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 legitimate/operetta music, with emphasis on vocal and body strengthening exercises and solo song coaching. Letter grading.

C135D. Musical Theater Vocal Styles: Rock (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.

C135E. 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.


C136. 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. Consecutive enrollment with same instructor not permitted. Total units for courses 136, 137A, 137B, and 137C may not exceed 12 units. Letter grading.

C137. 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 textiles and Internet of Things, and Modern approaches to artificial intelligence. Offers solid basis for engaging in future collaborations with technologists, for self-study of new technologies, and, for those already active in digital technologies, theoretical background for engaging with social context of these technologies. Concurrently scheduled with course C437. P/NP or letter grading.

C138. Special Topics 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.

C139. 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.

C140A. Introduction to Programming for Entertainment Design. (4) 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 C440A. 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 projects using object-based programming to control sound and video. May be repeated once for credit. Concurrently scheduled with course C440C. Letter grading.

C141A-C141B-C141C. Advanced Sound Design. (4–4–4) Studio, four hours; laboratory, four hours. Concurrently scheduled with courses C441A-C441B-C441C. Letter grading.

C141A. (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 theater sound design. May be repeated once for credit. Letter grading.

C141B. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on analysis of dialogue, effects, and music tracks for theater sound design. May be repeated once for credit. Letter grading.

C141C. (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.


C143A-C143B. Special Projects in Design. (4) Lecture, four hours. Concurrently scheduled with course C433A. Letter grading.

C144A. (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.

C144B. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on analysis of dialogue, effects, and music tracks for theater sound 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.

C145A-C145B-C145C. Advanced Sound Design. (4–4–4) Studio, four hours; laboratory, four hours. Concurrently scheduled with courses C441A-C441B-C441C. Letter grading.

C146A. (4) Lecture, three hours. Examination of orig- inal and student-generated works 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 or three 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.

C147A. 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.

C147B. Drawing Scenery. (4) Studio, four hours. Intro- ductionary course for basic design necessary for drawing, building, scenic design for theater and television. Letter grading.

C148. Special Courses in Design and Technical Theater. (4) Lecture, three hours. Group study of selected subjects in design and technical theater. May be repeated twice for credit. P/NP or letter grading.

C149. 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.

C150. 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 instant on production. Letter grading. May be repeated for maximum of 8 units. Letter grading.

C151A. Scenic Design. (4) Lecture/studio, four hours. Requires: courses 14A, 14B, 14C. Imagina- tion as a tool for design, working with metaphor, and conceptualization. Investigation of design re- search process, composition, and style leading to vi- sual 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 multi-camera 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. Requires: 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. Requires: course C152A, C152B, or C152C. Advanced topics in lighting design, concentrating on live dance performance in all styles. Concurrently scheduled with course C452E. Letter grading.

C153A. Costume Design. (4) Lecture/studio, four hours. Requires: courses 14A, 14B, 14C; for transfer students course 14A, 14B, 14C. Design of costumes for musical theater, including research, design, and prototyping of interactive theatrical events. 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 professional costume design and wardrobe 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 logisitics, including but not limited to costume breakdowns, catering budgets, adhering to and overseeing them, as well as set costumer training for film and television, practicing on-set protocol, breakdown of daily responsibilities, and assembling set costumer kits ready for use. 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 grade only. Concurrently scheduled with course C453D. Letter grading.

C153E. History of Costume Design in Movies. (4) Lecture, three hours; screenings, two to six hours. History of costume design within context of 20th-century fashion and film history, including evolution of role of costume designer since early days of film industry. Role of costume designer and contribution of costume design to cinematic storytelling. Concurrently scheduled with course C453E. Letter grading.

C153F. Practice of Costume Design for Film Productions. (4) Lecture, three hours. Introduction to costume design as tool for storytelling, exploring integration of costume design and filmmaking process and what it takes to bring characters to life. Skills needed to effectively costume short narrative films, including script breakdown, collaboration with directors and editors, and overseeing construction of costumes. Concurrently scheduled with course C453F. Letter grading.

C154A. Sound Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Introduction to sound design and inclusion of sound design within context of 20th-century fashion and film history, including evolution of role of costume designer since early days of film industry. Role of costume designer and contribution of costume design to cinematic storytelling. Concurrently scheduled with course C454A. Letter grading.

C154B. Sound Design for Theater. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing. Topics include use of delay, equalization, and microphone placement for theater sound reinforcement. Study of creation of sound effects, control of MIDI data for uses in musical theater. May be repeated once for credit. Concurrently scheduled with course C454B. Letter grading.

C154C. Sound for Film and Television. (4) Lecture/studio, four hours. Study of current professional sound recording, re-recording, mixing, and synchronization practices for film and television. Concurrently scheduled with course C454C. Letter grading.


C155A. Perspective Drawing. (2) Studio, four hours. Requisites: course 147A or 147B. Introduction to use of pencil and pen to communicate scenic designs, including one- and two-point perspective, form, light, shade, and textures. Letter grading.

C155B. 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 scenic design computer programs. Use of vector-based programs for generation of color designs and elevations. May be repeated twice for credit. Letter grading.

C155C. Digital Rendering. (2) Studio, four hours. Study and practice of 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 for digitized photorealistic 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 making 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 design. Study of techniques for rendering theatrical costumes, with emphasis on figure, clothing, and fabrics. Letter grading.

C155G. Scene Painting Techniques. (2) Studio, four hours. Requisite: course 147A or 147B. Study of scene painting techniques and materials and their application to scenic design and painting. Letter grading.

C155H. 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.


C156G. Scene Painting Techniques. (2) Studio, six hours. Group study of scenic painting techniques and materials and their application to scenic design and painting. Letter grading.

C156H. 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.

C157A-C157C. Costume Construction. (2–2–2) Studio, four hours. Study of theory and application of drafting, pattern making, fitting, and construction techniques for period costumes and undergarments to achieve authentic-appearing costume using contemporary methods. Each course may be repeated once for credit. Concurrently scheduled with courses C457A-C457B-C457C. P/NP or letter grading.


160. 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.


163A. (4) Lecture/studio, four hours. Requisite: course 15. Introduction to the creative development of primary directing skills and process, including text analysis and exploration of craft fundamentals as basis for director/actor communication and effective staging. Students direct scenes from plays under laboratory conditions. Letter grading.

163B. (4) Lecture/studio, four hours. Requisite: course 15. Further development of craft elements of directorial method, with additional emphasis on psychological aspects of director/actor communication. Students direct scenes under laboratory conditions in alternative stage configurations. Letter grading.


163D. Directing Project for Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requisites: courses 163A, 163B, 163C. Application of stage directing techniques in production of short play or project. Students direct one-act play or project. May be repeated once for credit. Concurrently scheduled with course C263D. Letter grading.

170. Design and Production Project. (4) Laboratory, eight hours. Requisite: course 114A. Experience as stage manager or designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs, or stage management in production. May be repeated once for credit. Letter grading.

171A. Advanced Theater Laboratory. (1 to 4) Laboratory, to be arranged. Creative participation as actor or stage manager in public presentation of departmental productions. May be taken for maximum of 4 units. P/NP or letter grading.

171B. Advanced Theater Laboratory. (1 to 4) Laboratory, to be arranged. Creative participation in realization of production elements related to public presentation of departmental productions. May be taken for maximum of 4 units. P/NP or letter grading.
C105A. 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 C285A. P/NP or letter grading.

C105B. Roles of Management 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 C285B. P/NP or letter grading.

M187. Art Alive: Art and Imagination in Museums. (4) (Same as Honors College M116.) Seminar, four hours. Offered in collaboration with Los Angeles County Museum of Art. Interpretation of art in collection through acting, dialogues, movement, and music. Research into history and art history and production of creative performance piece required. 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 consent noted on transcript. P/NP or letter grading.

195. Community or Corporate Internships in Theater, Film, Television, and Digital Media. (1 to 8) Independent study of theory and practice of dramaturgy. Letter grading.

199. Directed Research or Senior Project in Theater. (2 to 8) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation of selected topic in world theater, drama, literature, and Digital Media. May be repeated twice for credit. S/U or letter grading.


206. Themes in World Theater and Drama. (5) Seminar, three hours. Selected topics in history and production, and performance. Overview of interesting student work. May be repeated four times for credit. S/U or letter grading.


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. (9) Seminar, three hours. De- signed 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. In- vestigation 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 theo- ries 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 method- ologies, theories, and debates in historiography of theater and performance linked to plays and perfor- mances appropriate to approach. Letter grading.

216G. Approaches to Identification. (6) Lecture, three hours; laboratory, one hour. Overview of key methods, debates, and performance texts of performative structure between audience member or speaker and theatrical or performance object. Letter grading.

220. Graduate Forum. (1 to 4) Seminar, one to four hours. Limited to graduate theater students. Presen- tation and discussion of issues informing and af- fecting 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 sustained practice in traditional disciplines such as theater, music, dance, and literature. Focus on thinking about human experience in fields such as philosophy, literature, cultural anthropology, linguistics, education, and law. Emphasis on establishing in- terdisciplinary dialogue across many fields. Letter grading.

222. Character Development through Makeup and Hair Design. (2) Studio, four hours. Examination of importance of makeup and hair design in film, History and overview of hair and makeup in fashion and motion pictures. Collaboration of makeup artists and hairstylists with costume designer, actors, production designer, and directors. Conceptual and 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 professional people in script. May be repeated twice for credit. 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, di- rection, production, and performance. Overview of in- dividual contributions and individuality of different arts. Individual units may include participation of leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently scheduled with course C122. Letter grading.

230A–230B-230C. Writing for Contemporary Thea- ter. (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. Participatory Workshop. Exploration of structural strategies, political implications, and technical demands of selected contemporary Amer- ican 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 alternative audiences, or children’s theater. May be repeated twice for credit. Letter grading.

232. Manuscript Analysis. (4) Lecture, three hours. Designed for graduate students. Critical and con-structive 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-243C. Scene Design. (4-4-4) 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 each) Studio, 12 to 24 hours. Designed for graduate students. Preparation in 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, political, and economic 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 designs. May be repeated once for credit. Letter grading.

250. Directing I. (4) Lecture, four hours; studio, 24 hours. Designed for graduate students. Development of directors' skills in planning, directing, and criticism through medium of written preparations and directing of scenes. 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, one hour; studio, 12 to 18 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.

253D. 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. Directing a classical or historical play through interpretation and production of historical or classical dramatic play 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 color, light, and theatrical light in 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. Exploration of 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. 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. Application of the producer role as manifested by schedule 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; studio, two or four hours. Designed for graduate students. Seminar study of problems in theater arts, organized on topic basis. Each course may be repeated once for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U or letter grading.

C404E. History of Design Décor Part I: Architecture and Decor—Antiquity to Early Neoclassical. (4) Lecture, four hours; lab, 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 C185B. S/U or letter 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 historic costume 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.


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.

2420-420B-420C. Advanced Acting I. (4 to 8–4–4) Studio, six to 18 hours. Letter grading.

2420A. (4 to 8) Studio, six to 18 hours. Development of individual technique, beginning with the basics that is dramatization of one's personal history. Scene work follows, with emphasis on off-stage preparations, improvisations capturing circumstances, life of character, and intentions of scenery and style directing.

2420B. (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. Letter grading.

2420C. (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.

2421A-2421B-421C. Advanced Acting II. (4 or 8 each) Studio/laboratory, six to 18 hours. Letter grading. 421A. Extending idea of autobiography and using it as a tool. Actor as playing characters quite removed from oneself. Using language. Using Shakespeare and oneself to play him. 421B. Continued character behavior study through language and movement. Development of character actions, objectives, and researching role. 421C. Comedy workshop. Exploration of craft of comedy and development of cabaret pieces.

2422. 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.


2424. Advanced Voice and Speech I. (4 or 8) 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.

2424B. Vowels and Voice Placement. (1) Studio, three hours. Requisites: course 424A. Builds on course 424A. Introduction of vowel diphthongs and triphthongs; development of forward sound, including consistent thought energy. Exercises to develop, and test to implement forward sound, including consistent thought energy. Text and warm-up exercises also covered. Letter grading.

2424C. Voice in Action. (1) Studio, three hours. Requisite: course 424A. Physical explorations and techniques for breath sourcing and increasing awareness of voice production. Sensory awareness of the Brecht and Barry techniques, and Knight-Thompson model may also be explored. Letter grading.

2424D-424F. 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-424I. Advanced Voice and Speech III. (2 or 4 each) Lecture, three to six hours. Extension of second-year work, with increased demands on voice/speech, range, resonance, and breathing capacity extension. Application of ear training and International Phonetic Alphabet to creation of dialects and accents, as well as systematic approach to creating dialect charts. Letter grading.

425A. Advanced Movement I. (2 or 4) Studio/lab- oratory, 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.

425B-425C. Advanced Movement I. (2 or 4 each) Studio/lab/oratory, 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. Awakening of imagination while exploring worlds of ritual, animal, conceptual, and modern dance movements. Letter grading.

425D. 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 physical self and technical precision and acting tendencies, body and breath control. May be repeated once for credit. Letter grading.

425E-425F. Advanced Movement II. (2 or 4 each) Studio/lab/oratory, three to six hours. Presentation of more complete picture of stage movement and its relation to theater, music, and dance. Advancement of physical training of individual actors to their maximum potential. Experience in techniques and discovery of origins of variety of acrobatic and dance disciplines, including ballet, ballroom, period dance, and circus techniques. Letter grading.

425G-425H-425I. 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.

426A-426B-426C. Alexander Techniques. (2 or 4 each) Studio, three to six hours. Study and practice in Alexander techniques as method of developing balance, poise, and coordination of body and mind. Exploration of use of rhythm to expand movement potential of actors and relevant use of visual arts and animal studies to character development and to expansion of movement potential. Letter grading.

429. Performance Workshop. (2) Studio, four hours. Limited to graduate students not enrolled in MFA acting program. Exercises in performance techniques, including autodrama and scene study. Development of performance skills through scene study, use of self, and personalization. Examination of characterization exercises and their application to scenes. Letter grading.

430A-430B-430C. Advanced Studies in Playwriting. (4 to 8 each) Lecture, three hours. Limited to MFA playwriting program students. Guided compilation of full-length scripts for stage, S/U or letter grading.

431. Special Topics in Playwriting. (4) Discussion, three hours. Designed for MFA playwriting program students. Analysis and practice of varied aspects of playwright’s art. Variable content selected from topics such as comedy writing, docudrama, writing for alternative performance and adaptation from stage to screen, children’s theater, or improvisational techniques. May be repeated twice for credit. S/U or letter grading.


C433A. Script Development Workshops. (4 to 8) Lecture, three hours; studio, four to 24 hours. Designed for graduate students. Guided process of script development, with emphasis on communication, artistic growth, and professional process. May be taken for maximum of 8 units. Concurrently scheduled with course C133A. Letter grading.

C43B. Script Development Workshop. (4 to 8) Formerly numbered C433B. Lecture, three hours; studio, four to 24 hours. Designed for graduate students. Guided process of script development, with emphasis on communication, artistic growth, and professional process. May be taken for maximum of 8 units. Letter grading.

C43AF-C43AW-C43AS. Problems in Advanced Writ- ing for Stage. (0–0–2) Lecture, two hours. Limited to MFA candidates. Review discussion and critique of playwriting projects. Each course may be repeated for maximum of 6 units. In Progress (C433G, C433AW) and S/U (C433AS) grading.

C437. Emerging Technologies and Their Uses in Live Performance. (4) Seminar, four hours. Survey of major emerging and contemporary technologies and their potential uses in scenic design, lighting, performance, from augmented and virtual reality to electronic textiles, Internet of Things, and Modern approaches to artificial intelligence. Offers solid basis for engagement with technological advances, with technologists, for self-study of new technologies, and, for those already more familiar with digital technologies, theoretical background for engaging with social context of these technologies. Concurrently scheduled with course C137. S/U or letter grading.

C440. Introduction to Programming for Entertain- ment Design. (4) 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.

C440B. Advanced Programming for Entertainment Design. (4) Study and practice in object-based programming using MAX/MSP programming language to control sound and video. May be repeated once for credit. Concurrently scheduled with course C140B. Letter grading.

C440C. Advanced Projects in Programming for Entertainment Design. (4) Studio, three hours. Advanced projects using object-based programming to control sound and video. May be repeated once for credit. Concurrently scheduled with course C140C. Letter grading.


441A. (4) Lecture/studio, four hours. Study and prac- tice in object-based programming using MAX/MSP and recorded sound; mix-down of multitrack record- ings; preparation of sound tracks and sound rein- forcement in theater. Study of creation of sound ef- fects, control of MIDI data, and design techniques for multi-track. 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 entertain- ment media, including effect of differing media on design choices, role of production designers and art di- rectors, and design for single- and multiple-camera productions. Each course may be repeated once for credit. Letter grading.


446A. (4) Lecture, three hours. Exploration of orig- inal forms of media-rich entertainment experience through lectures, presentations, and seminar participa- tion. Students form collaborative teams to con- ceive and propose interactive entertainment events. Letter grading.

446B. (4) Lecture, three hours. Prototype develop- ment; two to five proposals to be conducted, 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, Televi- sion, and Entertainment Media. (4–4–4) Lecture/ studio, four hours. Study and practice in design of costumes for live and virtual characters in film, televi- sion, and entertainment media. Emphasis on differ- ring media on design choices. Courses 448A and 448B may be repeated once for credit; course 448C may be repeated twice for credit. Letter grading.

448D. Deconstructing Glamour. (4) Lecture, three hours; screenings, two hours. Exploration of integra- tion of costume design into filmmaking process and illumination of work required to bring characters from written page to life. Letter grading.

449A-449B-449C. Advanced Scenic Design. (4 each) Formerly numbered 443.) Studio, four hours. Ad- vanced study and practice of scenic design for the- ater, with emphasis on cultivating imagination as im- petus for design, text analysis, metaphor, and con- ceptualization. Investigation of design research process, composition, and style leading to visual pre- sentation of design, as well as exploration of stu- dents’ individual cognitive and artistic process and re- finement of techniques. Each course may be repeated twice for credit. S/U or letter grading.

C444A-C444B-C444C. Advanced Sound Design. (4–4–4) Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to perfor- mance environments, techniques associated with re- ceiving, mixing, presentation, and re- production of dialogue, effects, and music tracks for the- ater sound design. May be repeated once for credit. Letter grading.

C444B. (4) Lecture, four hours; laboratory, four hours. Study and practice in processing and mixing of live and recorded sound; mix-down of multitrack record- ings; preparation of sound tracks and sound rein- forcement in theater. Study of creation of sound ef- fects, control of MIDI data, and design techniques for multi-track. May be repeated once for credit. Letter grading.

C444C. (4) Lecture; laboratory, four hours. Study and practice in processing and mixing of live and recorded sound; mix-down of multitrack record- ings; preparation of sound tracks and sound rein- forcement in theater. Study of creation of sound ef- fects, control of MIDI data, and design techniques for multi-track. May be repeated once for credit. Letter grading.

C445A. Lecture, four hours. Study and practice in design of scenic environment for film, video, and entertain- ment media, including effect of differing media on design choices, role of production designers and art di- rectors, and design for single- and multiple-camera productions. Each course may be repeated once for credit. Letter grading.


C446A. (4) Lecture, three hours. Exploration of orig- inal forms of media-rich entertainment experience through lectures, presentations, and seminar participa- tion. Students form collaborative teams to con- ceive and propose interactive entertainment events. Letter grading.

C446B. (4) Lecture, three hours. Prototype develop- ment; two to five proposals to be conducted, completely defined and developed. Students form collaborative teams for further conceptual development of their project proposals. May be repeated once for credit. Letter grading.
449. Design Thesis Project. (4) Lecture/studio, four hours. Series of group design projects that serve as comprehensive examination for MFA degree in entertainment design. Review and evaluation of projects by design faculty members from all areas of curriculum. Letter grading.

C451A. Scenic Design. (4) Lecture/studio, four hours. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design. May be repeated once for credit. Concurrently scheduled with course C151A. Letter grading.

C451B. Scenic Design for Theater. (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 C151B. Letter grading.

C451C. Production Design for Film, Television, and Video. (4) Lecture/studio, four hours. Study of role of director, scenic design for prosenium, thrust, and arena configurations, multiset productions, and set construction. May be repeated once for credit. Concurrently scheduled with course C151C. Letter grading.

C452A. Lighting Design. (4) Lecture/studio, four hours. Study of lighting, with emphasis on imagination, text analysis, metaphor, and conceptualization. Investigation of composition and control of light and color in relation to actor. May be repeated once for credit. Concurrently scheduled with course C152A. Letter grading.

C452B. Lighting Design for Theater. (4) Lecture/studio, four hours. Study of lighting design for prosenium, thrust, and arena configurations, music theater, and concert lighting. May be repeated once for credit. Concurrently scheduled with course C152B. Letter grading.


C452D. Lighting Design for Performances and Special Events. (4) Lecture, four hours. Requisites: courses C452A, C452B, C452C. Advanced topics in lighting design, including live performances for concerts, exhibitions, and live events. Concurrently scheduled with course C152D. Letter grading.

C452E. Lighting Design for Dance. (4) Lecture, four hours. Requisites: courses C452A, C452B, C452C. Advanced topics in lighting design, concentrating on live dance performance in all styles. Concurrently scheduled with course C152E. Letter grading.

C453A. Costume Design. (4) Lecture/studio, four hours. Imaginative and professional design for film, television, and music theater. May be repeated twice for credit. Concurrently scheduled with course C153A. Letter grading.

C453B. Costume Design for Theater. (4) Lecture/studio, four hours. Study of costume design for prosenium, thrust, and arena configurations, multiset productions, and set music theater. May be repeated twice for credit. Concurrently scheduled with course C153B. Letter grading.

C453C. Costume Design for Film and Television. (4) Lecture/studio, four hours. Study of current professional costume design and wardrobe practices in film and television, including effect of differing media on design choices. May be repeated twice for credit. Concurrently scheduled with course C153C. Letter grading.

C453D. Projects in Costume Design Management. (4) Lecture, three hours. Examination of professional duties of costume designers, set costumers, and supervisors. Includes general management of production logistics, including but not limited to costume breakdowns, creating budgets, adhering to and overseeing them, as well as set costumer training for film and television, practicing on-set protocol, breakdown of daily responsibilities, and assembling set costumer kits ready for production. Practice with professional resourcefulness to move from abstract to substantive problem solving, maintaining creative and collaborative environment while adhering to logistical obstacles and tasks. Concurrently scheduled with course C153D. Letter grading.

C453E. History of Costume Design in Movies. (4) Lecture, three hours: 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, digital, and visual space. Study and practice of techniques for recording, editing, and creating soundscapes. May be repeated once for credit. Concurrently scheduled with course C154A. Letter grading.

C454B. Sound Design for Theater. (4) Lecture/studio, four hours. Study of sound for design, techniques for recording, and signal processing. Topics include use of delay, equalization, and microphone placement for theater sound reinforcement. Study of creation of sound effects, control of MIDI data, and design techniques for musical theater. May be repeated once for credit. Concurrently scheduled with course C154B. Letter grading.

C454C. Sound for Film and Television. (4) Lecture/studio, four hours. Study of current professional sound recording, re-recording, mixing, and synchronization practices for film and television. Concurrently scheduled with course C154C. Graduate students expected to produce designs demonstrating higher level of proficiency and skill. Letter grading.


C455A. Perspective Drawing. (2) Lecture/studio, four hours. Requisite: course 147A or 147B. Introduction to use of pencil and pen to communicate scenic designs, including one- and two-paint perspective, form light, shade, and textures. Graduate students expected to produce drawings demonstrating higher level of proficiency and skill. 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 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 design through the use 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. 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. Graduate students expected to produce models demonstrating higher level of proficiency and skill. Letter grading.

C455E. Life Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice in drawing of human form. Letter grading.

C455F. Costume Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study of techniques for creating theatrical costumes, with emphasis on figure, clothing, and fabrics. Letter grading.

C455G. Scene Painting Techniques. (2) Studio, four hours. Requisite: course 147A or 147B. Study of scenic painting techniques and materials and their relationship to color design and scenic 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.


457D. Advanced Historical Costume Interpretation and Construction. (4) Lecture/studio, four hours. Introduction to costume design as tool for interpretation of one renowned artwork and as intrinsic element of art history to gain expertise in costume and pattern making, while creating half-scale costume inspired by masterwork and to gain familiarity with artist’s life and social milieu. Letter grading.

May be repeated for maximum of 24 units. 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. Designed for advanced MFA students. Internship at various film, television, and theater facilities: a) creative contribution, organization, and work of professionals in their various specialties. Given only when projects can be scheduled. S/U or letter grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of 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.

596A. Directed Individual Studies: Research. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596B. Directed Individual Studies: Writing. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596C. Directed Individual Studies: Directing. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596D. Directed Individual Studies: Design. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596E. Directed Individual Studies: Acting. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596F. Directed Individual Studies: Production. (2 to 12) Tutorial, to be arranged. 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.


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 Undergraduate Excellence for Incoming Freshmen. (2) Seminar, two hours. Not open to students who have completed University Studies 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 scholarship. P/NP grading.

10B. ACE UCLA|Critical Strategies to Achieve Undergraduate Excellence for International Students. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10C, 10D, or former course 10. Designed 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 scholarship. P/NP grading.

10C. ACE UCLA|Critical Strategies to Achieve Undergraduate Excellence for Life Science Students. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10B, 10D, or former course 10. Designed to assist transfer students in making successful transition to UCLA by focusing on academic, social, and emotional aspects of transition. Study of research university’s history, mission, rigor, expectations of students, and pedagogical implications. Cultivation of formal space on campus where UCLA students learn to engage both diplomatically and collaboratively with diverse community of scholars; to comprehend and apply theoretical foundations of college student development; to navigate complex structure of UCLA; and to be fully aware of their value to intellectual fabric of institution as contributors to innovative research and scholarship. P/NP grading.

University Studies

College of Letters and Science

A316 Murphy Hall
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University Studies

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Muriel C. McClendon, PhD, Chair

Faculty Committee

Robert A. Gurvai, PhD (Classics)
Frank A. Laski, PhD (Molecular, Cell, and Developmental Biology)
Elizabeth A. Marchant, MA (Comparative Literature, Gender Studies)

Muriel C. McClendon, PhD (History)
William I. Newman, PhD (Earth, Planetary, and Space Sciences; Mathematics; Physics and Astronomy)
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/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, C141, 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 requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

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

Graduate Degrees

The Department of Urban Planning offers the Master of Urban and Regional Planning (MURP) degree and the Doctor of Philosophy
(PhD) degree in Urban Planning. Six concurrent degree programs (Urban Planning MURP, Environmental Health Sciences MPH, Urban Planning MURP/Environmental Health Sciences MPH, Urban Planning MURP/Latin American Studies MA, Urban Planning MURP/Law JD, and Urban Planning MURP/Management MBA) are also offered.

Urban Planning

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be 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. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M110. Inequality and Democracy: Analysis and Praxis of Public Problems. (4) Same as Social Welfare M1110.) 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. 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 locational theories, urban transportation, and residential location and segregation. P/NP or letter grading.

121. Urban Policy and Planning. (4) Lecture, three hours. Examination of current urban planning and policy issues and debates, such as normative theories of good urban form, metropolitan organization and governance, economic development and growth management, environmental spatial mismatch hypothesis, urban poverty, racial/ethnic inequality, gender and urban structure, sustainability, and future of cities. P/NP or letter grading.

M122. Policy, Planning, and Community. (4) (Same as Asian American Studies M1122.) Lecture, three hours; field laboratory. Project-oriented methods course for conducting needs assessment in Asian American communities. Geographic information systems to be used to define problems and needs. Letter grading.

129. Special Topics in Urban Policy and Research. (4) Lecture, three hours. Examination of particular planning/policy subfield (e.g., economic development, housing and community development, international planning and development, land use, or urban design) in some depth. Special topic area rotates depending on instructor. May be repeated for credit with topic change. P/NP or letter grading.

130. Fundamentals of Urban and Regional Economics. (4) Lecture, three hours. Preparation: one introduction to microeconomics course. Most U.S. population lives 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 high-concept. Utting, and it is the context of those public activities can be enhanced by understanding of economic forces acting on urban areas. Basic concepts related to economic perspective—such as agglomeration effects, economies of scale, and specialization—by cities and transportation. P/NP or letter grading.

C133. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to new approaches to urban studies, basic concepts and analytical approaches of urban political economy, with major emphasis on African American urban problems and restructuring of modern metropolis. Topics include historical geography of urbanization, development and transformation of urban spatial structure, urbanization and political fragmentation, urban fiscal crises, and policy failures. Concurrently scheduled with course C233. P/NP or letter grading.

M137. Southern California Regional Economy. (4) (Same as Labor and Workplaces Studies M180.) Lecture, three hours. Focus on regional economy, with emphasis on Los Angeles. Key economic sectors, labor market composition, and review of conflicting portrayals of dynamics of region, Two all-day bus tours of key economic regions and concurrent study of regional labor and housing markets. Summer tours of Los Angeles with guest lectures by regional experts included. Concurrently scheduled with course C237C. Letter grading.

M140. Issues in Latina/Latino Poverty: Mexican and Central American Voices from Los Angeles. (4) (Same as Chicana and Chicano Studies M121 and Labor and Workplaces Studies M121.) Lecture, four hours. Examination of key issues (work, housing, and neighborhoods) in urban poverty, with particular focus on Mexican and Central American immigrant populations in Los Angeles. Exploration of major theoretical models that explain urban poverty and application of them in comparative context while exploring differences between Mexican and Central American immigrants. Social conditions and forces that help us understand Latino poverty in comparative context while exploring differences between Mexican and Central American immigrants. Social conditions and forces that help us understand Latino poverty in comparative context while exploring differences between Mexican and Central American immigrants. 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tivities, electronic asset mapping, web-based data processing and analysis, oral and written reports, and cyber-based research. Letter grading.

CM172. Labor and Economic Development. (4) (Same as Labor and Workplace Studies M172.) 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.

202A-202B. Land Use. (202A: 3 or 4; 202B: 1 or 2) Lecture, three hours. Course 202A is enforced requisite to 202B. Exploration of 21st-century land-use public controls, private practice, and litigation in California for basic understanding of regulatory control frameworks. Baseline and official mapping to regional growth management, sustainability, and environmentally sensitive land protection. Concurrently scheduled with Law 206. In Progress (202A) and S/U or letter (202B) grading.

202M. Housing Segregation, Housing Discrimination, and Evolution of Public Policy. (1 to 6) (Same as Law M526.) Seminar, three hours; field trips. 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 antispeculation and rent control legislation. Catalytic role of economic and community development in expansion of housing supply also considered. Letter grading.

203A-203B. Seminar: Housing Segregation, Housing Discrimination, and Evolution of Public Policy. (1 to 6 each) (Same as Law M526.) Seminar, three hours; field trips. Course M203A is enforced requisite 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 antispeculation and rent control legislation. Catalytic role of economic and community development in expansion of housing supply also considered. In Progress (M203A) and letter (203B) grading.

204. Research Design and Methods for Social Policy. (4) (Same as Public Policy M219.) 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 formal principles of research design; in second half, various data collection methods, including ethnography, interviewing, and survey design. Letter grading.

205A-205B. MURP Comprehensive Examination: Applied Planning Project I, II. (Required of all second-year students completing applied planning research project, 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.

206A. Introduction to Geographic Information Systems. (4) (Same as Public Policy M224A.) Lecture, two 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 covering spatial and statistical analysis. Topics include data quality, data manipulation, spatial analysis, and information systems. Use of mapping and spatial analysis to address planning problem. Letter grading.

206B. Advanced Geographic Information Systems. (4) (Same as Public Policy M224B.) Studio, three hours. Requisite: course M206A or Public Policy M224A. Advanced topics in geographic information systems (GIS) utilizing geoprocessing tools in ArcGIS, map design, 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 externalities, 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, development of literature and identification of gaps, development of researchable hypotheses, understanding of strengths and weaknesses of qualitative and quantitative methodologies, understanding of the relationship between research design 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 antispeculation and rent control legislation. Catalytic role of economic and community development in expansion of housing supply also considered. 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, development toward that goal of balance in law and policy: broad array of urban issues examined, as 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, use, 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 produce product that benefits larger community. Data management and analysis, including accessing, cleaning, and presenting data. Letter grading.
229. Visual Communication Skills. (2) Five-week course. Lecture, two hours; laboratory, one hour. Greater emphasis on graphic presentation and visual communication to educate stakeholders, advocates for change, and encourage participation in planning processes. In recent years, on both public and private sector. Visual communication requires analytic skills and strategic thinking, strong foundation in design theory, and technical skills in computer programs. Introduction to Adobe Design, Adobe Illustrator and foundation in design theory and communication. How to use graphic design and presentation programs (i.e., Adobe InDesign, Adobe Illustrator, GIS, PowerPoint) to effectively communicate planning materials and ideas, and report design principles to communicate ideas in clear, succinct, and engaging manner, and when and how to use graphic materials to support verbal presentations or written reports. Letter grading.

230. Introduction to Regional Planning. (4) Same as Public Policy M241.) Lecture, three hours. Critical and historical survey of evolution of regional planning theory and practice, with particular emphasis on relation between regional developments and regional thought and practice over time, leading authors and current theories and conceptions of industrial structure, of complexity and diversity in addition to acts of nature. Structured to allow students to focus on distinct disaster contexts and themes as set out in reading and weekly sessions. Letter grading.

232. Disaster Management and Response. (4) Lecture, three hours. Through readings and presentation examinations, introduction of disaster management and response in both U.S. and developing countries. Explores issues of disaster preparedness both related to economic, vulnerability, and political factors, in addition to acts of nature. Structured to allow students to focus on distinct disaster contexts and themes as set out in reading and weekly sessions. Letter grading.

233. 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 crisis, and role of urban social movements. Concurrency required with course C133. S/U or letter grading.

234A. Development Theory. (4) Same as Geography M229A.) Lecture, three hours. Review of basic literature and schools of thought on development theory, trends of mercantilism, capitalism, colonialism, 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. Given students important background for courses M234B, M234C, and many other planning courses addressing Third World issues. Letter grading.

234B. Ecological Issues in Planning. (4) Same as Geography M229B.) Lecture, three hours. Recommended preparation: course M265. Science and politics of modern environmentalism and planning in light of transformations inherent in global change, including how to address these questions in ways that lead toward green consumerism and bifurcation of world economic systems. American environmentalism has become dominant model for many conservation practices. Informed by Marxist model of idea of untrammeled nature with people-less set-asides, for conservation or consumption of nature: this approach used in environmental policy and as key idea in conservation and fragment biology. At opposite end is environmental planning devoted to infrastructure in human habitats (cities). Examination of these competing models and many reasons to be skeptical of both in 21st century. Letter grading.

M234C. Resource-Based Development. (4) Same as Geography M229C.) Lecture, three hours. Recommended preparation: course M234A. Some major issues associated with development of specific natural resources. Topics include nature of particular resources and region associated management, involvement of state, corporations, and local groups, and environmental and social impact of its development. Letter grading.


M236A. Theories of Regional Economic Development I. (4) (Same as Geography M230A and Public Policy M240.) Lecture, three hours; discussion, one hour. Introduction to theories of location of economic activity, trade, and other forms of contact between regions, process of regional growth and decline, reasons for different levels of economic development, relations between more and less developed regions. Letter grading.

M236B. Globalization and Regional Development. (4) (Same as Geography M230B.) Lecture, three hours. Required: course M236A. Application of theories of regional economic development, location, and trade learned in course M236A to contemporary processes known as globalization. Examination of nature and effects of globalization on development, employment, and social structure, along with implications for policy. Letter grading.

236C. Advanced Workshop on Regions in World Economy. (4) Lecture, three hours. Required: course M236B. Advanced workshop on regional development examining changes in organization of production systems, their geographies, and processes that affect regional performance in globalized environment. Letter grading.

237A. Sectoral Analysis. (4) Lecture, three hours; laboratory, one hour. Recommended to methods and procedures of sectoral investigation as applied to regions, industries, companies, and their labor forces. Current theories and conceptions of industrial structures and industrial chains and their characteristics and trends of industry subsystems in Los Angeles resulting in industry profile that can serve as aid to planning and shaping economic development. Letter grading.

237B. Urban and Regional Economic Development Applications. (4) Lecture, three hours. Survey and analysis of economic development strategies in U.S. Because economic development strategies seek to modify or shape existing conditions, focus on how policies attempt to harness dynamics associated with new forms of industrialization, intensified global competition, and interrelationships among capital, labor, and state. Letter grading.

C237C. Southern California Regional Economy. (4) Lecture, three hours. Introduction to regional economy, with emphasis on Los Angeles. Key economic sectors, labor market composition, and review of conflicting portrayals depicting dynamics of region. Two all-day bus tours of key economic regions and guest lectures by regional experts included. Concurrency recommended with CM237. Letter grading.


M215. Spatial Statistics. (4) (Same as Geography M205 and Statistics M222.) 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, geology, seismology, demography, and environmental sciences. S/U or letter grading.
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239. Special Topics in Regional and International Development. (4) Seminar, three hours. Topics in urban and regional development selected by faculty members. May be repeated for credit. S/U or letter grading.

240. Local Government. (2 to 6) (Same as Law M285.) Lecture, three hours. Analysis of structure and function of local, regional, and state government in historical and institutional context: organization, finance, intergovernmental relations, role of judiciary. May be repeated for credit. S/U or letter grading.

241. Foundations of Social Welfare Policy. (4) (Same as Public Policy M212A.) Lecture, two hours; discussion, one hour. Nature, roles, and history 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.

242. Poverty and Inequality. (4) Lecture, three hours. Examination of relationship between urbanization and spatial inequality, and social dynamics of urban growth, levels and causes of spatial inequality, and implications of spatial inequality for low-income communities. Topics include concentrated poverty, residential segregation, and management of spatial disparities in access to opportunities, housing mobility, neighborhood health and safety, urban infrastructure, and political cohesion and participation. Analysis of poverty promoting and/or reducing spatial inequities. Letter grading.

243. Privatization, Regulation, and Public Finance. (4) (Same as Public Policy M233.) Lecture, three hours; outside study, nine hours. Requisites: Public Policy 201. Evaluation of economic and political determinants of trend toward privatizing public services, and equity and efficiency outcomes of this trend as well as new pricing schemes and service-level policies. Exploration of new regulatory role this trend implies for state and local governments. Letter grading.

244. Urban Poverty and Planning. (4) Lecture, three hours; outside study, nine hours. Requisites: Public Policy 201. Examination of determinants of urban poverty, with emphasis on poverty in U.S. and on geographical dimensions of poverty and planning interventions that contribute to poverty reduction. Topics include relationship between urban and non-urban dynamics of urban demographic, change, low-wage labor market, spatial concentration of poor, residential segregation, and social policy. Letter grading.

245. Urban Health. (4) Lecture, three hours. Requisites: courses 207, 220A. Theory and practice of urban public finance, with emphasis on methods used to fund public infrastructure. Topics include fiscal impact analysis of real estate development, effects of taxes on land-use decisions, benefit assessment, financial problems of planning for multiple publics. Letter grading.


247. Planning for Multiple Publics. (4) Lecture, three hours. Exploration of planning needs of various social groups in urban settings, using existing literature and research studies to determine appropriate mechanisms of planning for multiple publics. Analysis of communities in large and small metropolitan area to develop insights into practical, theoretical, and methodological problems of planning for multiple publics. Generally taken in first year. S/U or letter grading.

248. Land and Poor. (4) (Same as Public Policy M285 and Social Welfare M290R.) Lecture, three hours. Designed for graduate students. Study of major income-maintenance programs in U.S., with emphasis on interaction of moral attitudes toward

249. Special Topics in Transportation Policy and Planning. (4) Lecture, three hours. Topics in transportation policy and planning for various service delivery systems and sectors. May be repeated for credit. S/U or letter grading.

250. Transportation, Land Use, and Urban Form. (4) (Same as Public Policy M220.) Lecture, three hours. Historical evolution and transportation systems, intrametropolitan location theory, recent trends in urban form, spatial mismatch hypothesis, jobs/housing balance, transportation in strong central city settings, current conditions for planning debate, rail transit and urban form. Letter grading.

251. Transportation and Land Use: Parking. (4) Lecture, three hours. Parking is key link between transportation and land use, but that link has been widely misunderstood. Transportation engineers typically assume that free parking simply is there at end of most trips, while urban planners treat parking as transportation issue that engineers must study. No profession is intellectually responsible for parking, and everyone seems to assume that someone else is doing hard thinking. Mistakes in parking help to explain why planning for parking and everyone seems to assume that someone else is doing hard thinking. Mistakes in parking help to explain why planning for parking and land use has in many ways gone slowly, subtly, incrementally. Study of theory and practice of planning for parking and examination of how planning for parking and land use became planning for free parking and today's exploration of new ways to improve planning for parking, transportation, and land use. Letter grading.

252. Transportation and Land Use: Transportation and Urban Form. (4) Studio, three hours. Students of different backgrounds and interests collaborate individually and analyze propose solutions for actual transportation planning and urban design problems. Students work on professional planning project of type that students might be assigned if working for consulting firms or public agencies. Students acquire ability to collect and synthesize evidence typically marshaled by transportation planning and urban design professionals, urban and site analysis capabilities, design and physical planning skills, and data analysis and design presentation and re-presentation abilities. Letter grading.

253. Travel Behavior Analysis. (4) (Same as Public Policy M221.) Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 201 and 203. Descriptions of travel patterns in metropolitan areas, recent travel trends and demographics, overview of travel forecasting methods, trip generation, trip distribution, mode split traffic assignment, critique of traditional travel forecasting methods and new approaches to travel behavior analysis. Letter grading.

254. Bicycle and Pedestrian Planning. (4) Lecture, three hours. Walking and bicycling are essential components of sustainable transportation systems. In response to growing concerns about access, safety, public health, equity, climate change, and community sustainability issues, many government agencies and private developers are planning to improve pedestrian and bicycle transportation. Exploration of field's relationship to land use and transportation planning, public health, and environment. Detailed knowledge provided of various bicycle and pedestrian facilities and the appropriate location of bicycle and pedestrian planning in context of overall street design. Essential components of bicycle and pedestrian planning, including policies, programs, funding, and advocacy. In-class exercises and out-of-class planning projects. Letter grading.

255. Transportation Policy and Planning. (4) (Same as Public Policy M244.) Lecture, three hours. Introduction to analysis, management, and operation of transportation systems. Topics include evaluation transportation system 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, transportation services for elderly and disabled, and intelligent transportation systems. Letter grading.

256. Transportation Economics, Finance, and Policy. (4) (Same as Public Policy M222.) Lecture, three hours. Overview of factors affecting transportation economics; concepts of efficiency and equity in transportation finance; historical evolution of highway and transit finance; current issues in highway finance; private participation in road finance; tolling; road costs and cost allocation, truck charges, congestion pricing; current issues in transit finance; transit fare and subsidy policies, contracting and privatization of transportation services. Letter grading.

257. Transportation and Economic Outcomes. (4) Lecture, three hours. Examination of equity issues related to urban transportation, with focus on complex relationships among urban spatial structure, transportation (travel patterns and transportation investment), and economic outcomes. Role of transportation in improving economic outcomes for low-income and minority households and communities. Letter grading.

258. Transportation and Environmental Issues. (4) (Same as Public Policy M223.) Lecture, three hours. Regulatory structure linking transportation, air quality, and energy issues, chemistry of air pollution, overreliance on transportation as approach to air quality enhancement; new car taipale standards; vehicle inspection and maintenance issues; transportation demand management and transportation control measures, alternative fuels and technologies. Corporate average fuel economy and global warming issues; growth of automobile worldwide fleet; automobile in sustainability debate. Letter grading.

259. Environmental Politics and Governance. (4) Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and implemented within multi-actor, 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.


261. Green Urban Studio: Designing Living Neighborhoods. (4) Studio, three hours. Students gain detailed knowledge of both established and emerging performance-based methods for addressing air pollution, transport, land use, environmental, and sustainability issues primarily considered at subnational, city, district or neighborhood scale. Letter grading.

262. Land-Use Planning: Processes, Critiques, and Innovations. (4) Lecture, three hours. Understanding of techniques, processes, strategies, and dilemmas of land-use planning. Despite strong criticisms and demonstrated shortcomings, land-use control remains integral part of planning practice. How does land-use control work? How has it evolved? What are the problems with traditional land-use control mechanisms? How well do innovations in land-use planning address these criticisms? What is the future of land-use planning in good society? S/U or letter grading.

263. Introduction to Environmental Policy. (4) (Same as Public Policy M252.) Lecture, three hours. Introduction to basic concepts and methods of environmental analysis covering variety of topics with
264. Environmental Law. (4 or 6) Focus on air pollution and Clean Air Act as means of illustrating policy issues underlying field. Concurrently scheduled with Law 290. In Progress (264A) and S/U or letter grading.

M265. Environmentalisms: Climate Dimensions and Politics, Past, Present, Future. (4) (Same as Geography M265.) Lecture, three hours; discussion, one hour. Focus on environmental theory and its 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. Review of theoretical and methodological 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 governance to address most widespread human impacts on planetary biodiversity, landscapes, climates, and social systems. Letter grading.


M268. Policy Analysis of Emerging Environmental Technologies. (4) (Same as Public Policy M268.) Lecture, three hours. Acquisition and utilization of economic, finance, planning, and policy analytic tools needed to evaluate factors that drive market adoption from early to middle market phases. Reservoir, 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, two hours. 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 M205A.) 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. Exploration of the array of policy issues underlying field. Concurrently scheduled with Law 290. In Progress (264A) and S/U or letter grading.

264A-264B. Environmental Law. (264A: 3 or 4; 264B: 3 or 4) Lecture, three hours. Concurrently scheduled with course 264A to enforced requisite to 264B. Examination of field of environmental law through analysis of various legal issues and public policy: legal consequences of public decision-making 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. In Progress (264A) and S/U or letter grading.

C271B. 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.

M272. Real Estate Development and Finance. (4) (Same as Architecture and Urban Design M272.) Lecture, three 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 rethinking real estate development strategies and allocation of primary responsibility for creating real estate project feasibility, deeper understanding about financing methods and alternatives, and knowledge of ways to frame development programs for success. Letter grading.

273. Site Planning. (4) Lecture, 90 minutes; laboratory, 90 minutes. Requisite: course 274. Introduction to principles of site planning for urban areas. S/U or letter grading.

274. Introduction to Physical Planning. (4) Lecture/ workshop, 90 minutes; discussion, 90 minutes. Designed for students with no prior physical planning background and for first-year MA students in community development and built environment, design and transportation, and policy planning and planning concentrations. Introduction 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) (Same as Public Policy M243 and Social Welfare M290U.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of role of U.S. housing policy and role of government agencies and community organizations. How to evaluate housing or economic development? Should interventions be directed toward inner city housing markets or suburban settings. Exploration of problematics of inner city housing markets or letter grading.

M276A-276B. Urban Housing. (1 to 8 each) (Same as Law M287.) Lecture, three hours. Course M276A is enforced requisite to 276B. Examination of past 40 years of economic and demographic trends, and impact on urban decline and improve housing in U.S.; contrast and analysis of land and policy projects in areas of urban housing, housing segregation, mortgage subside.
M286. Management Challenges and Tools for Non-profit 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 current events, that nonprofit managers typically face. Letter grading.

M287. Politics, Power, and Philanthropy. (4) (Same as Public Policy M226 and Social Welfare M290S) Lecture, three hours; outside study, nine hours. Use of political economy perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and institutions. 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. Students develop management skills in strategic thinking/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 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 selective 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.

M295. Introduction to Urban Humanities. (4) (Same as Architecture and Urban Design M295S) Seminar, six hours; studio, six hours. Core introduction to urban humanities. Analytical and descriptive methods of humanities paired with selective 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.

M299. 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.

M301. Tutorial, four hours. Discussion of and critical thinking about topics in students' areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M302. Directed Research in Urology. (2 to 8) Tutorial, four hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culfminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

M310-794-8492

Mark S. Litwin, MD, MPH, FACS (Fray and Ray Stark Foundation Professor of Urology), Chair

Scope and Objectives
The fundamental goal of the Department of Urology is to teach medical students the general principles of diagnosis and management in diseases of the genitourinary tract. Urology encompasses a wide scope of human illness, including conditions that are congenital and acquired, pediatric and adult, male and female, malignant and benign. The department functions to acquaint students with the skills necessary to manage these conditions in the initial stages and over the long term.

Instruction spans all four years of the undergraduate medical school curriculum but is concentrated during the clinical rotations. Students spend two weeks on the urology service during the third year and may return for an additional three-week elective rotation during the fourth year. The clinical experience includes time spent in the faculty and resident clinics, on ward rounds, and in didactic conferences that cover general urology, urological subspecialties, uropathology, and uroradiology. Urology teaching settings include the Reagan UCLA, Harbor-UCLA, Olive View-UCLA, Santa Monica-UCLA, and West Los Angeles VA medical centers.

For more details on the Department of Urology and courses offered, see the department website.

Urology

Low-Priorization 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-Priorization Courses
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.

Urology
David Geffen School of Medicine
379 Wasserman Building
Box 357383
Los Angeles, CA 90095-7383

Urology
310-794-8492

Mark S. Litwin, MD, MPH, FACS (Fray and Ray Stark Foundation Professor of Urology), Chair

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Urology

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Upper-Priorization Courses
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.
VISUAL AND 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. Roussève, 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 introduce students to the field of arts education for multiple publics in general and specifically in relationship to the K-12 public school system, 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 non-profit arts institutions, expand the ongoing dialogue and interaction between UCLA, extended Los Angeles community, K-12 public school system, and students in the arts, and extend the School of the Arts and Architecture commitment to UCLA and community partnerships by linking teaching and research with undergraduate education, civic engagement, and support for institutional priorities to improve the quality of life for Los Angeles residents.

Undergraduate Study
Visual and Performing Arts Education Minor
The Visual and Performing Arts Education minor is intended to supplement the education of undergraduate students enrolled in the Architectural Studies, Art, Art History, 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 included 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 cultural and intellectual importance taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
10. Introduction to Community Engagement through Arts. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Introduction to fields of community engagement and arts education informed by philosophies of progressive educational and social justice movements. By looking at community engagement as an educational 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, papers, oral presentations, Topics announced in advance. May be repeated for maximum of 8 units. P/NP or letter grading.
M102. Introduction to Arts Education for Multiple Publics: Theory and Practice. (4) Formerly numbered Arts and Architecture M102.) 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 and evaluate arts education programs in dance, music, theater, and visual arts. P/NP or letter grading.
103. Socially Engaged Pedagogy in Arts. (4) Lecture, three hours; outside study, nine hours. Students 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 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’s 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.) (Same as Education M192.) Seminar, three hours; supervised practicum. Field experience, three to four hours. Enforced requisite: 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. (4 Formerly numbered Arts and Architecture M192SL.) (Same as Education M192SL.) Seminar, three hours; practicum, three hours; outside study, six hours. Enforced requisites: courses M102, M192SL. Limited to juniors. Students implement and evaluate original arts education programs under guidance of faculty members in small course settings. P/NP or letter grading.
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

150 Kaufman Hall
Box 951608
Los Angeles, CA 90095-1608

World Arts and Cultures/Dance
310-825-3951
Department e-mail

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. Roussevè, 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
Irma Dosamantes-Beauchy, PhD
Elsie A. Dunin, MA
Pia S. Gilbert
Michael O. 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
Wilfried G. Soulý
Ken Swift
Jason C. Tsou, MS
Natsuo Tomita
Margaret J. Williams

Adjunct Assistant Professor

Roslyn 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, filmmakers, and choreographers dedicated to critical cross-cultural analysis and art-making. The department is the place to make danses, 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, visibility, 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, museums, 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 studies research communities, cultures, and transnational movements through heritage and globalization studies, multivocal ethnographies, dance and theories of corporeality and embodiment, visual and material culture, critical museum and curatorial studies, documentary practice and Internet interventions, as well as arts activism and interdisciplinary art-making. The MFA in 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 idiosyncratic practice are offered that enable students to analyze the rhetorical and ideological significance of dance. The dance and civic engagement area is grounded in the investigation and activist-oriented work of artists and the role of dance in the public sphere, and offers a wide range of courses in the nature of activism as well as opportunities for fieldwork, education internships, and other forms of community involvement.

Students select one area as their primary area and another as their secondary area. Elective options provide further deepening of student knowledge and skills in any or all of the areas. Students may also consider courses from programs outside the department and may organize their course of study in relation to their particular interests.

Students who wish to confer with the departmental student affairs officer regarding program planning and major requirements should contact the undergraduate counselor at 310-825-8537.

Learning Outcomes

The Dance major has the following learning outcomes:

- Choreography of dances in various settings, cultural contexts, and media, with emphasis on progressive approaches
- Creative problem-solving of issues tied to arts and activism, dance-making, and producing in multiple formats, in an intercultural and interdisciplinary context
- Think critically about the relationship between aesthetics and politics through choreography, written analysis, and multiple research methods
- Demonstrated advanced proficiency in at least two movement disciplines
- Analysis of vocabulary, location, and syntax of dance works
- Analysis of political, cultural, and historical implications of dance works
- Demonstrated ability to understand and implement collaboration in an art-making practice
- Written and oral recognition and synthesis of key concepts in critical dance studies

Admission

New students are admitted to the Dance major for fall quarter only. All applicants are reviewed individually, based on submission of a written research paper, transcripts, two letters of recommendation, and one personal essay. These supplementary materials are requested from students in mid-December, after the general UC application is received and processed, and are due back in the department in January. For freshman applicants, college placement test scores are also considered. Students must participate in a late January/early February audition. Specifics about the audition are included in the e-mail requesting the above-mentioned supplementary materials.

Change of major applications are considered once a year. Current UCLA students who petition to change their major are required to meet with the student affairs officer prior to application, but no later than the eighth week of fall quarter in order to participate in the departmental supplemental application process during fall/winter quarters for admission into the program the following spring or fall quarter. They are required to take selected departmental courses before and during the term in which they apply to the program (contact the student affairs officer for a list of selected courses). They must have a minimum 2.0 overall grade-point average, a minimum 2.0 GPA in all departmental courses taken, and no more than 90 quarter units at the time of application. All students are required to audition in early winter quarter and may be interviewed as part of the application process.

Preparation for the Major

Required: Dance 1, 16, 44, 45, 67A, 67B, 70.

The Major

The Dance major consists of 76 units of coursework.

Required: (1) Dance 101, 117A, 117B and (2) 10 units in the primary area and 5 units in the secondary area selected from the following: (a) creative inquiry as research—Dance 114, 116, 117C, 118, 119, C122, 163, 169, 170, C171, 174A, 174B, 180, or other upper-division courses with faculty approval, (b) 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, (c) dance and civic engagement—Dance 165, 166, 167, C184, World Arts and Cultures 100A, 100B, 103, 114, 144, 160, 177SL, 195, or other upper-division courses with faculty approval (no more than 8 units of courses 114 and/or 160 may be applied toward this area). Students also have the option to propose a senior honors project through Dance 186A and 186B.

Movement Arts/Dance Practices—Required: A total of 48 units of practice courses. A minimum of two technique courses per term until completion is strongly recommended. Thirty of the total 48 units must be selected from Dance 6, 9, 13, 15, 56, 59, 63, 65, C106A, C113A, 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, conduction 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 freshman applicants, college placement test scores are also considered.

Change of major applications are considered once a year. Current UCLA students who petition to change their major are required to meet with the student affairs officer prior to application, but no later than the week after 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, 23, 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, 177SL; (3) 195, 199, or other upper-division courses with faculty approval (no more than 8 units); (4) a total of 11 units and/or 160 may be applied toward this stream; stream 2 (critical ethno- graphic approaches)—courses 120 (with faculty approval), 121, 132, C139, CM140, C141, C142, C146, C150, C151, 174A, 174B, 181, 195, 199, or other upper-division courses with faculty approval, or stream 3 (visual cultures)—Clusters (60A, courses 120 (with faculty approval), M125A, M125AL, M125B, M125BL, M125C, M125C1, M126, M128, CM130, 133, C138, C139, C141, 143B, C145, C146, C152, 174A, 174B, 180, 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 the faculty adviser so as to provide capstone experiences that draw together ideas and abilities from four years of study, while positioning students for postgraduate opportunities for further study or for entrance to job markets.

Graduate Study

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

Graduate Degrees

The Department of World Arts and Cultures offers Doctor of Philosophy (PhD) degree in Culture and Performance (a master’s degree may be earned in the process of completing PhD requirements) and a Master of Fine Arts (MFA) degree in Dance.

Dance

Lower-Division Courses

1. Global Perspectives on Dance. (5) Lecture, three hours; discussion, one hour. Examination of practices of choreography, improvisation, and technique in different cultural settings and historical eras. Introduction to field of dance studies through analysis of broad spectrum of philosophies and practices within global context, with focus on creative act of dance-making, thinking and understanding act of improvising, and diverse ways of training one’s body. By framing process of analysis within array of historical periods and cultural settings, development of capacity to engage with dance as lived social and artistic practice while refining critical seeing, thinking, and writing skills. P/NP or letter grading.

2. Moving Voice. (Formerly numbered World Arts and Cultures 5.) Studio, three hours. Experimental 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.

4. Moving Voice. (Formerly numbered World Arts and Cultures 5.) Studio, three hours. Experimental 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.

5. 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.

6. Beginning West African Dance. (2) Studio, three hours. Beginning-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. P/NP or letter grading.


8. 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.

9. Yoga. (2) Studio, three hours. Beginning-level study of yoga. May be repeated for credit without limitation. P/NP or letter grading.

10. Beginning Martial Arts. (2) Studio, three hours. Beginning-level study of Tai Chi Chuan and other martial arts forms. May be repeated for credit without limitation. P/NP or letter grading.


12. Beginning Special Topics. (2) Studio, three hours. Beginning-level study of variable movement practices. May be repeated for credit without limitation. P/NP or letter grading.


15. Beginning Modern/Postmodern Dance. (2) Laboratory, four hours. Study of modern and/or postmodern movement practice. May be repeated for credit without limitation. P/NP or letter grading.

16. Beginning Improvisation in Dance. (2) Laboratory, four hours. Introduction to creative exploration in movement through improvisational and compositional exercises that access and develop imagination, find relationship between imagination and dance making, and enrich movement vocabulary. May be repeated for credit without limitation. P/NP or letter grading.

17. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
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. Introduc-
tion to discipline of dance studies, with focus on study of dance practices. May be repeated for credit without limitation. 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 origi-
nating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. P/NP or letter grading.


60. Intermediate Studio Arts. (2) Studio, three hours. Intermediate-level study of Tai Chi Chuan and other martial arts forms. May be repeated for credit without limitation. P/NP or letter grading.

63. Intermediate Ballet. (2) Studio, three hours. In-
troduction to helping performers in ballet as move-
ment 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 re-
peated 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 conceptualize creating dance? What kinds of strategies do they use for sequencing their materials? Answers to these questions in relation to broad range of artistic approaches. Emphasis on knowledge that dance-making occurs distinctively in different cultural contexts and different historical moments. Readings about and viewing of videos of selected performances and choreographic practices for dance students who have had prior coursework/experience in dance. P/NP or letter grading.

67B. Theories and Methods in Dance Composition II: Processes. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisite: course 67A. 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 constructing their materials? Answers to these questions in relation to broad range of artistic approaches. Emphasis on knowledge that dance-making occurs distinctively in different cultural contexts and different historical moments. Readings about and viewing of videos of selected performances and choreographic practices for dance students who have had prior coursework/experience in dance. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Lim-
tited 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 both lower-division and upper-division credit. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (su-
 pervised research or other scholarly work), three hours per week. Entry-level research to be conducted by 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. Theories of Dance. (5) Lecture, four hours; dis-
cussion, two hours. Enforced requisite: course 45. Ideas of dance, choreography, and movement have achieved broad resonance in contemporary per-
f ormance and arts. A survey of studies of social be-
avior. Examination of concepts and approaches to dance studies and deployments of its vocabulary, within field and beyond, concentrated in four principal approaches: technicality, choreography, theoretical analysis, and critical theory. Use of key ideas in dance to investigate allied areas of performance, embodied, social constructions of identity and difference, and relationships between aesthetics and politics. De-
sign of dance performances to illustrate link between theory and practice. How does dance create alternative modes of thinking 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 origi-
nating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. Concur-
rently scheduled with course C406A. 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 choreography and techniques for dance students who have had prior coursework/experience in dance. P/NP grading.

112A. Advanced Special Topics. (2) Studio, three hours. Advanced-level study of variable movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C412A. P/NP or letter grading.

115. Advanced Modern/Postmodern Dance. (2) Studio, six hours. Advanced-level work in modern and/or postmodern movement practices. Technical training, with emphasis on increased understanding of movement principles and ability to apply these to performance. May be repeated for credit without limitation. Concurrently scheduled with course C415. P/NP or letter grading.

116. Advanced Improvisation in Dance. (2) Studio, four hours. Enforced requisite: course 16. Develop-
ment of aesthetic perspective through use of imagery, sound, and other elements of dance and performance. May be repeated for credit without limitation. P/NP or letter grading.

117A. Theories and Methods in Dance Composi-
tion III: Locations. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requi-
sites: courses 16, 67A, 67B. Examination of how loca-
tion of dance impacts its meaning. How does occa-
sion of dance, concert, festival, ritual, or celebration influence experience of it? What are factors that need to be considered when locating dance in one partic-
ular 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. Ex-
amination of range of locations for dances, including performance settings, site-specific locations ranging from urban and suburban streets, parks, sidewalks, temples, amphitheaters, village squares, and other site-specific locations that endow dance with specific significance and how various artists have worked with place in creating their 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 Composi-
tion 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 under-
taken in previous courses to determine how dances move their viewers. How do dances appeal to or ad-
dress their audiences? How do dance vocabulary, se-
quencing, 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 distinc-
tive kinds of responses from audiences. Focus on creation of three in-depth studies, each of which en-
deavors to construct distinctive kind of response from viewers. P/NP or letter grading.

117C. Advanced Topics in Choreography. (4) Le-
cure, four hours; studio, two hours; outside study, six hours. Enforced requisites: courses 16, 67A, 67B. Di-
rected exploration in composition, with focus on de-
veloping theme-based choreographic works that are informed by theoretical engagement with selected topics through lectures, readings, and discussions. Thematic topics include contemporary issues and concerns such as imagery, abstraction; home, history, and memory; interculturalism; con-
structing identity. May be repeated for credit without limitation. P/NP or letter grading.

118. Advanced Interdisciplinary Composition. (4) Le-
cure, four hours; studio, two hours. Enforced requi-
sites: courses 67A, 67B. Directed exploration in composition, with focus on developing works that en-
gage 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 Interdisciplinary Composition. (4) Le-
cure, four hours; studio, two hours. Enforced requi-
sites: courses 67A, 67B. Directed exploration in com-
position, with focus on works that engage techniques and techniques of two or more disciplines: dance, music, and/or visual art. Engagement with postcolonial theory 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 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. Opportunities for choreogra-
phers, and composers to work together creating and developing material in their respective disciplines. Ex-
ploration of different forms and ways of approaching creative process of music and dance, presenting material on weekly basis, and developing skills for discussion, critique, and review. Concur-
rently scheduled with course C222. P/NP or letter grading.

145. Selected Topics in Dance Studies. (4) Le-
cure, four hours; outside study, eight hours. Designed 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.

152. History and Theory of Modern/Postmodern 
Dance. (2) Lecture, two hours; Studio, three 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 C189. S/U or letter grading.

C211A-211F. Advanced Choreography. (4 each) Lecture, two hours; studio, two hours. Theoretical and practical aspects of advanced choreography for students who wish to develop their own work and that of others for camera video projects. Concurrently scheduled with course C211A. S/U or letter grading.

C271. Dance Production: Variable Topics. (4) Seminar, four hours. Theory and practice of production administration, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, history and theories of producing, mission statements, budgeting, marketing, public relations, fund-raising, legislating, and archiving. Concurrently scheduled with course C184. S/U or letter grading.

C280. Dance for Camera. (4) Lecture, two hours; laboratory, two hours. Production experience in choreography and for music students who have had prior coursework/experience in choreography and for music students who have had prior coursework/experience in music composition. Course requirements for directors, choreographers, and composers to work together creating and developing material in their respective disciplines. Exploration of different forms and ways of approaching creating a process of making and moving, presenting material on weekly basis, and developing skills for discussion, critique, and review. Concurrently scheduled with course C171. S/U or letter grading.

C292. Production Arts Seminar. (4) Seminar, four hours. Theory and practice of production administration, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, history and theories of producing, mission statements, budgeting, marketing, public relations, fund-raising, legislating, and archiving. Concurrently scheduled with course C184. S/U or letter grading.

C324. Production Arts Seminar. (4) Seminar, four hours. Theory and practice of production administration, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, history and theories of producing, mission statements, budgeting, marketing, public relations, fund-raising, legislating, and archiving. Concurrently scheduled with course C184. S/U or letter grading.

C325. 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 choreography and writing. Concurrently scheduled with course C185. S/U or letter grading.

C328. Beyond Academia: Making Art in Real World. (4) (Same as World Arts and Cultures CM268.) Lecture, four hours; outside study, eight hours. Design for graduate students. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course CM168. S/U or letter grading.

C327. Dance Production: Variable Topics. (4) Lecture, four hours; laboratory, two hours. Production experience in range of dance production practices, including but not limited to lighting design, set design, costume design, and stage management. Practical training in area covered, combined with theoretical inquiry into practice and opportunities for students to reflect on their own work and that of others. Completion of production project required. May be repeated for credit without limitation. Concurrently scheduled with course C171. S/U or letter grading.

C367. Projects in Dance. (2) Laboratory, four hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit without limitation. P/NP or letter grading.

C368A-368B. 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, ethnocultural, and performance approaches. Lecture/semester format with Dance faculty during first term; faculty-directed presentations of individual projects during second term. Letter grading.

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 applied to upper division honors requirements. Honors content noted on transcript. P/NP or letter grading.

Graduate Courses

211A-211F. Advanced Choreography. (4 each) Lecture, two hours; studio, two hours. Theoretical aspects of advanced choreography for students who have reached level of self-initiation of substantial creative works. Refinement and realistic self-evaluation; critical coursework for acknowledged choreographers. S/U or letter grading.

C222. Music and Dance Collaborations. (4) Studio, four hours. Requisites: courses 67A, 67B. Designed for dance students who have had prior coursework/experience in choreography and for music students who have had prior coursework/experience in music composition. Opportunity for directors, choreographers, and composers to work together creating and developing material in their respective disciplines. Exploration of different forms and ways of approaching creating a process of making and moving, presenting material on weekly basis, and developing skills for discussion, critique, and review. Concurrently scheduled with course C122. S/U or letter grading.

C243. Production Arts Seminar. (4) Seminar, four hours. Theory and practice of production administration, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, history and theories of producing, mission statements, budgeting, marketing, public relations, fund-raising, legislating, and archiving. Concurrently scheduled with course C184. S/U or letter grading.

CM168. Beyond Academia: Making Art in Real World. (4) (Same as World Arts and Cultures CM168.) Lecture, four hours; outside study, eight hours. Design for graduate students. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course CM168. S/U or letter grading.

CM268. Beyond Academia: Making Art in Real World. (4) (Same as World Arts and Cultures CM268.) Lecture, four hours; outside study, eight hours. Design for graduate students. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course CM168. S/U or letter grading.

CM324. Production Arts Seminar. (4) Seminar, four hours. Theory and practice of production administration, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, history and theories of producing, mission statements, budgeting, marketing, public relations, fund-raising, legislating, and archiving. Concurrently scheduled with course CM184. S/U or letter grading.

C406A. Advanced West African Dance. (2) Studio, three hours. Advanced-level study of dance forms originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. May be repeated for credit without limitation. Concurrently scheduled with course C186A. S/U or letter grading.

C409A. Advanced Hip-Hop Dance. (2) Studio, three hours. Advanced-level study of hip-hop movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C189A. S/U or letter grading.
World Arts and Cultures

Lower-Division Courses

1. Introduction to World Arts and Cultures. (5) Lecture, three hours; discussion, one hour. Survey of concepts and theories involved in interdisciplinary, intercultural, interdisciplinary study of art, aesthetics, and performance. Examination of interactions among various modes of creation in context of representation of cultural identity and difference, and interaction of diverse artistic traditions. Letter grading.

2. Lower Division Seminar. (5) Seminar, four hours; outside study, one hour. Topics vary. May be repeated for credit without regard to topics. Letter 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 the management of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

4. World Studies. (2) Lecture, four hours; discussion, one hour. Introduction to concepts and problems of world studies. May be repeated for credit without regard to topics. P/NP or letter grading.

5. Advanced Special Topics. (2) Lecture, three hours. Advanced-level study of variable movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C121A. S/U or letter grading.

6. 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 C121A. S/U or letter grading.

7. Directed Field Study in Dance Education. (2 to 4) Seminar, one hour; field study, two hours minimum. Directed field study to provide teaching experience in community school or other approved site. May be repeated for credit without regard to topics. Letter grading.

8. Directed Field Study in Performance. (2 to 4) Seminar, one-hour rehearsal per unit per week. Creation, casting, and rehearsing of culminating concert by each student leading to fully fledged concert, reflecting professional achievement. May be repeated for credit without limitation. Concurrently scheduled with course C115. S/U or letter grading.

9. Dance Production Practicum. (2 to 4) Laboratory, four to eight hours (one or two hours may be individualized consultation). Skills and understanding of production components in roles of stage manager, production assistants, and producer. May be repeated for credit without regard to topics. Letter grading.

10. Projects in Choreography and Performance. (2 to 8) Tutorial, one-three hour rehearsal per unit per week. Creation, casting, and rehearsing of culminating concert, reflecting professional achievement in choreography or performance, in first term. In second term, direction of on-stage rehearsals for culminating concert by each student leading to fully staged performance. May be repeated for maximum of 16 units. S/U or letter grading.

11. Professional Internship in Dance. (4, 8, or 12) Seminar, to be arranged. Full or part-time supervised fieldwork placement in MFA studies. Internship in dance, theater, film, or television organization. Participation in creative, administrative, or technical work of professionals in their specialties. S/U or letter grading.

12. World Arts and Cultures/Dance/Dance Studies. (5) Lecture, four hours. Introduction to concepts and problems of world studies. May be repeated for credit without regard to topics. P/NP or letter grading.

13. Advanced Topics in World Arts. (2 to 4) Lecture, three hours; discussion, one hour. Introduction to current issues in world arts, including acts of conscience and civil disobedience. Letter grading.

14. Colonialisms and Resistance. (5) Lecture, three hours; discussion, one hour. Introduction to study of indigenous worldviews as they are expressed through art, myth, story, dance, music, language, and ecology. May be repeated for credit without regard to topics. P/NP or letter grading.

15. Intermediate World Arts Practices in Global Context. (2) Studio, three hours; discussion, one hour. Planning and execution of proposal for junior year of study, with attention to exploring resources of department and University as whole. P/NP grading.

16. Directed Field Study in Performance. (2 to 4) Seminar, one-hour rehearsal per unit per week. Creation, casting, and rehearsing of culminating concert, reflecting professional achievement. May be repeated for credit without limitation. Concurrently scheduled with course C115. S/U or letter grading.

17. Directed Field Study in Dance. (2 to 8) Seminar, one hour; field study, two hours minimum. Directed field study to provide teaching experience in community school or other approved site. May be repeated for credit without regard to topics. Letter grading.

18. Directed Field Study in Performance. (2 to 4) Seminar, one-hour rehearsal per unit per week. Creation, casting, and rehearsing of culminating concert, reflecting professional achievement. May be repeated for credit without limitation. Concurrently scheduled with course C115. S/U 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 the management of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
terroigining divides and overlaps between intellectual and artistic practice and mixing theory with practice. P/NP or letter grading.

114. Performance Practicum. (1 to 4) Studio, three to 12 hours. Rehearsal and performance in selected community, local, or travel work. May be repeated for credit without limitation. P/NP grading.

120. Selected Topics in Cultural Studies. (4) Lecture, three hours. Designed for juniors/seniors. Selected topics in interdisciplinary study of arts and performance in cultural and historical context. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

121. Ethnography and Performance. (4) Lecture, four lecture hours, one hour rehearsal and independent work. Examination of ways that ethnography and performance interrelate, as well as development of some preliminary approaches to effectively document performance events. P/NP or letter grading.

124. Introduction to Field-Based Research Methods. (3) Three hours. Introduction to methods, techniques, and issues in conducting field-based research, including nature, uses, and limitations of major data-gathering procedures, ethical concerns, sampling, data collection, time management, procedures, and interventions, and results as not only tangible and personal outcomes of inquiry but also personal and intangible. Through readings, discussion, and hands-on exercises, exploration of how to plan fieldwork 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 M186C and Chicana and Chicano Studies M186C.) Studio/lecture, six hours. Requisites: courses M125B, M125BL. Corequisite: course M215CL. 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 setting. Study of community art and its place in the broader world. P/NP or letter grading.

M125B. Beyond Mexican Mural: Advanced Muralism and Community Development. (4) (Same as Art M186C and Chicana and Chicano Studies M186C.) Studio/lecture, six hours. Requisites: courses M125B, M125BL. Corequisite: course M215CL. 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 setting. 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.


C140. 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 role of healing and healing arts in healing troubled communities. Concurrently scheduled with course CM240. P/NP or letter grading.

C141. Carnival and Performance. (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 C241. P/NP or letter grading.

C142. Myth and Ritual. (4) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Myths as expression of values and purposes, and places. Rituals embody and activate myths through dramatic transformative devices. Concurrently scheduled with course C242. P/NP or letter grading.

143B. Introduction to Museology: Museum Exhibitions and Education. (5) Lecture, six hours. Conception and development of exhibitions and formulation of educational and other goals for specified audiences. Design considerations, media applications, and installation process. 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-creation 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 localize 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 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 life. Case studies examine how religious symbols and ideas move across cultures as cosmologies define moral being in world, divination determines causes of difficulty, spirit mediumship embodies divine intervention, and sacrifices and other deities function. Nonjudgmental comparative investigation storying conversation. Concurrently scheduled with course C251. P/NP or letter grading.
C152. Visual Cultures. (4) Lecture, three hours. How are ways of seeing constructed through culture, gender, religion, class, and nation? Theories and case studies from around world permit understanding of social processes through which gaze is determined and discipline. Topics include new social formations and their impact on narrative, identity, and meaning. concurrently scheduled with course C252. P/NP or letter grading.

C158. Theorizing Arts Activism. (4) Seminar, three hours. Theorizing arts activism to provide context for concerted action, creation, and protest. Readings include theoretical texts and current production. Consideration of particular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health Center. Arts activist projects organized by seminar members supported and encouraged. Concurrently scheduled with course C258. P/NP or letter grading.

C159. Art and Global Health. (4) Seminar, three hours. Exploration of interface of arts-and-health-based methodologies in pursuit of improved health outcomes, using examples from international projects created and supported by UCLA Art and Global Health Center. Readings include texts by artists and arts scholars and articles from public health and medical literature. Members propose their own arts-based health promotion interventions. Concurrently scheduled with course C259. 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 ranges of communities. Intensive training in sex, sexuality, HIV/AIDS, and powerful history of specific interventions to open urgent dialogues on these taboo topics. May be repeated for maximum of 12 units. P/NP or letter grading.

C164. Public Writing in Arts. (4) Lecture, four hours; outside study, eight hours. Survey of journalistic approaches to writing about arts, with eye toward shaping critique of public writing practices and putting that critique into practice. Exploration of new modes of (and venues for) writing that reframe power differential between art makers and commentators. Concurrently scheduled with course C264. P/NP or letter grading.

CM168. Beyond Academia: Making Art in Real World. (2) Lecture, two hours; outside study, eight hours. Designed for juniors/seniors. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant writing. Concurrently scheduled with course CM268. P/NP or letter grading.

C173. Sound Resources for Performance. (4) Lecture, three hours; studio, one hour; outside study, eight hours. Designed for juniors/seniors. Exploration of music, in search of interesting, new, and unusual. Investigation of musical possibilities via record store. Interior and exterior musical/mnestic environmental sounds and patterns; body (clapping, stepping, and singing); and hardware store (found sound). Participants collaborate with fellow students in creative efforts and in presentations of research results. Concurrently scheduled with course C273. P/NP or letter grading.

174A. Projects in World Arts and Cultures. (2) Laboratory, four hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit. P/NP or letter grading.

174B. Projects in World Arts and Cultures. (4) Laboratory, six hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit. P/NP or letter grading.

177SL. Taking Action: Arts Practice and Community Service. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course 103. Designed for juniors/seniors. Application of training in world arts and cultures through service projects designed by students in collaboration with community organizations and institutions. Reflection on impact of service on communities and theories. May be repeated once for credit. P/NP or letter grading.


178C. Other Private Instructors in World Arts and Cultures. (2) Lecture, four hours. Concurrently scheduled with course CM268. P/NP or letter grading.

180. Variable Topics in Video Production/Prac- tice. (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 critique 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 grading.

186A-186B. Senior Honors Projects in World Arts and Cultures. (5-5) Lecture, four hours; outside study, 11 hours. Enforced requisites to 186A. 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 performance approaches. Lecture/seminar format with World Arts and Cultures faculty during first term; faculty-directed presentations of individual projects during second term. M187. Indigenous Film. (5) Same as American Indian Studies M187B. Lecture, four hours; discussion, one hour. Introduction to study of indigenous filmic images and representations, with focus on selected ethnographic and experimental film. Screening of 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 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.

195. Community or Corporate Internships in World Arts and Cultures. (2 to 4) Tutorial, six hours. Internship in required telescoping agency or business. Students meet on regular basis with instructor and provide periodic reports of their experiences. May be repeated to a maximum of 8 units. Individual contract with supervising faculty member required. 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. Culminating 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 concept in art, science, 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, ethnicity, and class identities), and analysis of dance and other somatic modes of performance. S/U or letter grading.

207. Ethnography of Performance. (4) Seminar, three hours; outside study, nine hours. Survey of methods and methodological issues in ethnographic study of performance in cultural context. Field documentation and participant observation techniques, transformative 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. Begins with 1530 debates over Indian hierarchy and ranging to contemporary scholarship about and by indigenous peoples, focus on intersections of writing, colonialism, violence, and history. Enforced requisite: course 103. Exploration of relationship between 16th-century reasoning about race and postmillennial, Western, and academic practices of writing history. Development of critical stance on utility of postcolonial conceptual frameworks that bear on anthropological and historical studies of indigenous religiosity. Regions include southwest Co-
207. Analyzing Narrative and Oral Performance. (5) Lecture, four hours. Designed for graduate students. Exploration of ways of documenting and interpreting individual narrators and interpreting their styles and repertoires; how narrators conceptualize and perform narrative discourse, impact of audience and situated event on narrative; how experiences and values are communicated through narrating, roles of repre- senting oral narrating, and politics of narrative and oral performance. S/U or letter grading.

210. Seminar: Performance Studies. (3) Seminar, three hours. Designed for graduate students. Variable topics in interdiscipli- nary study of performative culture, arts, and performance in social and historical context. May be re- peated for credit with topic change. S/U or letter grading.

C229. Food Customs and Symbolism. (4) Lecture, three hours. Designed for graduate students. Introduction to foodways, with particular attention to customs and symbolism in America. Topics include his- torical realms, child rearing practices, foodsharing, food and identity, food and its emotional significance, aven- sions and taboos, advertising, changing food habits, and American diet. 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 spaces from prehistorical or vernacular 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 CM231. 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 Amer- ican worlds 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 perfor- mance genres defined. 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 various contexts, such as performance, 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. Role of healing, histori- cally and within contemporary culture-specific con- texts. Exploration of psychological functions served by rites of passage and healing rituals and of role of arts in healing. 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 carnivale- que 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 in- tellectuals as cultural workers operating in domains of ideology, aesthetics, and theory. Analysis of such key- words as institution, performance, politics, ideology, and image. Concurrently scheduled with course C146. S/U or letter grading.


C252. Visual Cultures. (4) Lecture, three hours. How are we 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 economics negotiated. Topics include scopic regimes, aesthetics of streamlined design, and vision and visuality. 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 cur- rent performance histories. Consideration of one par- ticular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health Center. Art activist project(s) selected, student- and internship-based methodologies in pursuit of improved health outcomes. 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 med- ical literature. Seminar members propose their own arts-based health promotion interventions. Concur- rently scheduled with course C159. S/U or letter grading.

C264. Public Writing in Arts. (4) Lecture, four hours; outside study, eight hours. Survey of journalistic ap- proaches to writing about arts, with eye toward shaping critique of public writing practices and put- ting that critique into practice. Exploration of new modes of (and venues for) writing that rebalance power differential between art makers and commen- tators. Concurrently scheduled with course C164. S/U or letter grading.

CM268. Beyond Academia: Making Art in Real World. (4) Formerly numbered C268.) (Same as Dance CM268.) Lecture, four hours; outside study, eight hours. Focus on understanding bureaucratic structures and re- gional histories conditioning creation of art in real world, including such practical issues as public 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 un- usual. Investigation of musical possibilities via record store, Internet, and music library; environmental sounds and field patterns; body percussion, and voice; and hardware store (found sound). Particip- ants collaborate with fellow students in creative ef- forts and in presentations of research results. Concur- rently scheduled with course C173. S/U or letter grading.

C280. Variable Topics in Video Production/Prac- tice. (4) Lecture, two hours; laboratory, two hours. Enforced requisite: course 80. Training in low-budget and independent production and primary research as tool. Visual ethnography combined with ex- perimental film. Introduction to history, ethics, and aesthetics of documenting subjects such as culture, performance, and dance among range of forms: bodily expression and experience. Film and documen- tary theory, ethnography, and phenomenology used to create innovative and critical forms of visual documentation. Skills include cinematography, found recording, interviews, and digital editing. May be re- peated once for credit. Concurrently scheduled with course C180. Letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Sem- inar, to be arranged. Preparation: apprentice per- sonnel development as team for teaching assistant, 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.

400. Directed Professional Activities. (2 to 8) Lecture, to be arranged. Directed projects in professional editing, bibliography, filmography, videography, con- ference and festival direction, and other professional activities. May not be applied toward MA degree re- quirements. 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; out- side study, three to 12 hours. Private or semiprivate instruction with distinguished community-based artist to be arranged by students and approved by in- structor. May be repeated for credit. 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 presen- tations and obtain feedback. Topics being offered发生变化。Students must complete Research Topics to make minimum of one presentation each term they are enrolled for credit. May be repeated for maximum of 8 units. S/U grading.
495. Teaching Assistant Seminar. (2–3) (Formerly numbered 451.) Seminar, one hour, laboratory, three hours. Required of all World Arts and Cultures Department teaching assistants. Lectures, discussion, readings, and practice teaching. May be repeated once for credit. S/U grading.

496. Teacher Preparation in World Arts and Cultures. (2–3) (Formerly numbered 495.) Seminar, two hours. Directed work in preparation of course syllabi and discussion of topics relevant to developing teaching skills. Fundamental principles and methods with which to design course syllabi and gather re-sources for courses. Topics include development of teaching philosophy, evaluating/selecting course content, teaching methodologies, assessment/evaluation/grading practices, and consideration of practical, administrative, and ethical issues. Students meet with instructors to review their specific needs as they progress in development and elaboration of course plans. Microteaching sessions provide context for applying concepts and principles discussed. S/U grading.

590A. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U or letter grading.

590B. Directed Study or Research in Hospital or Clinic. (2 to 8) Tutorial, to be arranged. S/U or letter grading.

597. Preparation for Master’s Comprehensive Examination or PhD Qualifying Examination. (2 to 8) Tutorial, to be arranged. Preparation for MA or MFA comprehensive examination or PhD qualifying examination. S/U grading.


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**Writing Programs**

*College of Letters and Science*

146 Humanities Building
Box 951384
Los Angeles, CA 90095-1384

**Writing Programs**
310-206-1145

Leigh C. Harris, PhD, Director
Janet M. Goodwin, MA, Interim Associate Director
Christine Holten, MA, Director, Undergraduate Writing Center

**Lecturers**

Teddi L. Chichester, PhD
Tamar S. Christensen, MA
Richard A. Creese, PhD
Shane Crosby, PhD
Margaret Davis, MA
Esha N. De, PhD
Nathan A. Deuel, MFA
Randal J. Fallow, PhD
Rachel I. Fretz, PhD
Mary E. Galvin, PhD
Lisa Gerrard, PhD
Janet M. Goodwin, MA
Leigh C. Harris, PhD
Thomas A. Hitchener, PhD
Christine Holten, MA
Lalla D. Huapla, PhD
Colleen M. Jaunmucis, PhD
Lizzi M. Juliano, PhD
Jeremy C. Kelley, PhD
David M. Kipen, BA
Bonnie J. Litsky, PhD
Karl F. Lisovskiy, MA
Sonia Masak, MA
Maja Manojlovic, PhD
Laurel M. Matterson, MA
Mia L.G. McIver, PhD

Nedda Mehdiizadeh, PhD
Michèle L. Moe, PhD
Ingrid H. Normann-Vigil, PhD
Shelby A. Popham, PhD
Tara L. Prescott, PhD
Susannah Rodriguez-Drissi, PhD
Gregory J. Rubinson, PhD
Mary G. Samuelson, PhD
Leslie A. Shewood, MS
Steven K. Steinberg, EdD
Bruce D. Stone, MFA
Carleen C. Velez, PhD
Dana Cairns Watson, PhD
Amber I. West, PhD
Laurel A. Westrup, PhD
Reed D. Wilson, PhD

**Scope and Objectives**

Students need to develop their proficiency as writers and communicators at every stage of their university careers and beyond. Writing Programs offers a series of courses introducing the varieties of university discourse and offering instruction in basic to high-level skills. Besides courses that satisfy the University of California Entry-Level Writing requirement and UCLA English as a Second Language, Writing I, and Writing II requirements, Writing Programs offers language support for international teaching assistants, and administers the Undergraduate Writing Center. In addition, Writing Programs offers advanced elective writing courses for undergraduates as well as graduate courses in writing pedagogy that may lead to a certificate.

**Undergraduate Study**

**Entry-Level Writing**

Every student who does not satisfy the Entry-Level Writing requirement by presenting transfer credit or acceptable test scores is required to take, as early as possible during the first year in residence, English Composition 1, 1A, 1B, 2, or 2I as determined by the Analytical Writing Placement Examination (AWPE). Students who have not otherwise satisfied the Entry-Level Writing requirement and who have not taken the AWPE before entering UCLA must take it in their first term. For more information regarding Entry-Level Writing, see Undergraduate Degree Requirements in the Undergraduate Study chapter.

**English as a Second Language**

**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.

**Graduate Study**

**English as a Second Language Requirement**

All entering graduate students whose native language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement may be required to take one or more ESL courses. Students are placed into the courses based on the UCLA English as a Second Language Placement Examination (ESLPE) and may be held for up to two ESL courses (300, 301).

The following students are exempt from the ESL requirement: (1) students who hold a bachelor’s or higher degree from a university in which English is the medium of instruction and (2) students with a score of 100 or better on the Test of English as a Foreign Language Internet-Based Test (TOEFL iBT) or at least a 7.5 overall band score on the International English Language Testing System (IELTS) examination. See International Applicants in the Graduate Study chapter.

**Graduate Degree**

Writing Programs offers a Graduate Certificate in Writing Pedagogy.
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, presenting arguments, 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-assessment, 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 professional audiences. Topics include writing effective summaries and reports, researching professional audience needs, and developing professional online profile. Effective summaries and reports, researching professional audiences. Topics include writing effective summaries and reports, researching professional audience needs, and developing professional online profile. Offered in summer only. P/NP or letter grading.

28. English through Language, Culture, and Society. (4) Lecture, four hours. Survey of selective language structures through their occurrence within contemporary cultural and societal topics within the American, content-based English language learning environment. Focus on understanding and applying these topics to improve fluency while enhancing critical thinking skills. May be repeated with topic change. Offered in summer. P/NP or letter grading.

29. Workshop in Disciplinary Writing for Multilingual Students. (4) Lecture, four hours. Emphasis on engaging 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.

30. Pronunciation for International Students. (4) Formerly numbered 338L. Lecture, four hours. Emphasis on accurate articulation of sounds, word stress, rhythm, linking between syllables, and intonation of fluent spoken English using video recordings of model speakers. Focus on reading comprehension, vocabulary development, and development of discipline-specific research articles, with additional work on fundamental composition techniques, grammar, and editing. S/U or letter grading.

31. High-Intermediate Writing and Communication for International Graduate Students. (4) Formerly numbered 201L. Lecture, five hours. Enforced prerequisite: course 300 or proficiency demonstrated on English as a Second Language Placement Examination. Development of academic writing skills with focus on reading comprehension, vocabulary development, and composition techniques, with additional work on grammar and editing. S/U or letter grading.

32. Advanced Writing Workshop for International Graduate Students. (4) Lecture, five hours. Requirements: course 301 or proficiency demonstrated on English as a Second Language Placement Examination. Writing and revision of papers for academic work or publication in student fields of study. Emphasis on rhetorical strategies as well as stylistic and organizational strategies for presentation of perspectives and arguments in disciplines including humanities, social sciences, and pure and applied sciences. Focus on grammar, structure, and vocabulary that contribute to clarity and coherence in writing. S/U or letter grading.

33. Pronunciation for International Teaching Assistants. (4) Formerly numbered 210L. Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students with 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 speeches. Frequencies are videorecorded and provide feedback for self, peer, and instructor evaluation. S/U or letter grading.

34. Classroom Communication for International Teaching Assistants II. (4) Formerly numbered 212L. Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students with 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 speeches. Frequencies are videorecorded and provide feedback for self, peer, and instructor evaluation. S/U or letter grading.
English Composition

Lower-Division Courses

1. Introduction to University Discourse. (4) Formerly numbered A. Lecture, four hours. Required: 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 grammar. Emphasis on revision and editing. Letter grading.

2. Approaches to University Writing. (5) Lecture, four hours. Required: 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 effectiveness. Completion of course with grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

3. English Composition, Rhetoric, and Language. (5) Lecture, three hours; fieldwork, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Rhetorical techniques and skillful argumentation, 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.

3D. English Composition, Rhetoric, and Language (Service Learning). (5) Lecture, three hours; fieldwork, two hours. For students who have not completed the Entry-Level Writing requirement or course 2 or 2I (C or better). Investigation of difference and diversity through writing and rhetoric. Critical examination of structures and institutions that promote asymmetrical power relations as well as responses of diverse groups to these inequalities. Original argumentation that engages with difference and responds to complexities of diverse societies. Service learning adds to understanding of diversity by offering firsthand interactions with diverse communities students are learning about. Completion of 20 hours of on-site service learning (with critical writing skills) and skillful discourse through classroom discussion focused on readings and service-learning experiences, as well as through reflective and analytical writing and research. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3E. English Composition, Rhetoric, and Language for 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 expository writing. Analysis of varieties of academic prose, including technical writing, and integration of multimodal elements. Minimum of 20 pages of revised prose. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3L. English Composition, Rhetoric, and Language (Service Learning). (5) Lecture, three hours; fieldwork, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Rhetorical techniques and skillful expository writing. Analysis of varieties of academic prose and writing of minimum of 20 pages of revised text. Service learning component includes meaningful work with off-campus agencies and an instructor. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

5W. Literature, Culture, and Critical Inquiry. (5) Lecture, four hours. Enforced requisite: course 3. Use of analysis of literary works within cultural context to engage students in critical writing and thinking about issues important to academic inquiry and responsible citizenship. Minimum of 15 to 20 pages of revised text required in addition to regular informal writing exercises. Satisfies Writing II requirement. Letter grading.

5L. English Composition, Rhetoric, and Language. (5) Lecture, three hours; fieldwork, two hours. Enforced requisite: course 3. Use of analysis of literary works within cultural context to engage students in critical writing and thinking about issues important to academic inquiry and responsible citizenship. Minimum of 15 to 20 pages of revised text required in addition to regular informal writing exercises. Satisfies Writing II requirement. Letter grading.

100W. Interdisciplinary Academic Writing. (5) Lecture, four hours. Required: 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 formal academic writing such as argument, research paper, and/or critical essay. Satisfies Writing II requirement. Letter grading.

110. Writing Adjunct. (4) Lecture, four hours. Required: satisfactory performance on Analytical Writing Placement Examination or course 1B (C or better). Development of academic writing skills with focus on synthesizing sources, strategies of argumentation, and vocabulary choices. Minimum of 20 pages of revised text. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion focusing on topics 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. Language Study for Teachers: Elementary School. (4) Lecture, four hours. Required: satisfactory performance on Analytical Writing Placement Examination. Survey of topics in English linguistics of special interest to elementary school teachers. Subjects include approaches to English grammar and 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.

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 discipline-specific 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 various rhetorical contexts, 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-131B-131C-131D. Specialized Writing. (4-4-4-4) 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 various rhetorical contexts, 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. Requires: satisfaction of Entry-Level English Composition requirements. A special writing course. Designed for juniors/seniors. Advanced writing course designed to help students develop stylistic, formal, and argumentative sophistication in various rhetorical contexts, including different sections that emphasize rhetorical values of major professions and research areas. 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. Requires: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Study of specific topics in relationship between rhetoric/writing and social or political history. Each course may be taken independently for credit. P/NP or letter grading. English majors who wish to use course to satisfy major requirements must take it for letter grade. 132A, Gender and Writing; 132B, Autobiographical Writing; 132C, Cultural Studies; 132D, Variable Topics.

136A-136B-136C. Practical Writing and Editing. (4-4-4) Lecture, four hours. Preparation: one course from 131 series. Requires: satisfaction of Entry-Level Writing requirement, course 3. Sequence in practical writing and editing ability specifically designed for business writers. Analysis of prose and literary styles necessary to various of writing in professional, nonacademic fields combined whenever possible with practical experience in variety of writing situations in work-related or informal skills. In Progress (136A) and P/NP or letter (136B, 136C) grading.

136D. English Composition 3 or 3D or 3SL. 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.

136F. Contemporary Issues in Writing. (5) Lecture, four hours. Preparation: course 136 or 336 or 356 or 386 or 495A. Course 136 may be repeated for credit. S/U or letter grading.

136G. Topics in Creative Writing. (5) Same as English M138. Seminar, three hours. Requires: English Composition 1 or 3 or 3D or 3SL. Directed study in creative writing with one 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.

139B. 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.

144. Community or Corporate Internships in English. (3-3-4) Seminar, three hours. Requires: course 3 or 3H, satisfaction of Writing II requirement. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students have learning experiences with individual instructors and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

149A. Directed Research or Senior Project in English Composition. (2 to 4) Tutorial, to be arranged. Requires: 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


301. Teaching English. (4) Formerly numbered 494.) Seminar, three hours. Limited to graduate students. Exploration of literature and theories of secondary school pedagogy that may include focus on changing institutional role of writing instruction, multimodal composition, and linguistic/educational diversity. Letter grading.

401. Writing Pedagogy across Disciplines: Genre and Discourse. (4) Seminar, three hours. Limited to graduate students. Survey of ways of teaching writing across course curriculum. Examination of writing conventions, genres, and styles in graduate 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.

402. Writing Pedagogy across Disciplines: Genre and Discourse. (4) Seminar, three hours. Limited to graduate students. Survey of ways of teaching writing across course curriculum. Examination of writing conventions, genres, and styles in graduate 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. Survey of theories and applications of language structures and co-constructions, with insights from discourse analysis and functional grammar. Designed to develop instructor ability to explain structures and to articulate language-based issues of meaning. Integrates theory and research 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. Survey of literature on heterogeneous classrooms, with focus on diversity of race, socioeconomic status, geographic background, linguistic skills, and academic preparedness. Development of teaching prac- tices for accommodating diverse student populations and building active inclusive curriculum and classroom environments at university level. S/U or letter grading.

405A. Teaching Preparation Seminar: Second Language Learners. (4) Formerly numbered 495GL.) Seminar, three hours. Limited to graduate students. 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 or letter grading.

405B. Supervised Teaching of Second Language Learners. (4) Seminar, three hours. Requires: course 495A. Required 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 with input of student writing, and specialized problems that may occur in teaching ESL courses. S/U or letter grading.

405C. Teaching Preparation Seminar: First-Year Composition. (4) Formerly numbered 495EB.) Seminar, three hours. Limited to graduate students. Required of all teaching assistants prior to teaching English Composition 3 courses and open to students seeking Graduate Certificate in Writing Pedagogy. Focus on composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching English Composition 3; 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.

M495L. 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.

M495J. 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.

M495K. Supervised Teaching of Writing for Engineers. (2) (Formerly numbered M495O.) Seminar, two hours. Enforced requisite: course M495J. 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.

M495N. Teaching Preparation Seminar: Teaching and Writing Pedagogies for Electrical Engineers. (2) (Same as Electrical and Computer Engineering M495N.) 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.

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.

495O. Supervised Teaching of Clusters Seminar. (2) Seminar, two hours. Required: course 495N. Required of all Clusters teaching assistants teaching their first Clusters seminar. Mentoring conferences and teaching observations, with focus on student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in disciplinary and Clusters contexts. Practical concerns of creating assignments, responding to and grading essays, and conducting peer reviews and conferences. May be repeated for credit. S/U grading.
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.
APPENDIX A: REGULATIONS AND POLICIES

Nondiscrimination

The University of California, in accordance with applicable federal and state laws and University policies, does not discriminate on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (including pregnancy, childbirth, and medical conditions related to pregnancy and childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (including membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services). The University also prohibits sexual harassment and harassment on any of the above bases. This nondiscrimination policy covers admission, access, and treatment in University programs and activities.

Students may grieve any action that they believe discriminates against them on the grounds of race, color, national or ethnic origin, alienage, age, sex, religion, age, sexual orientation, gender identity, marital status, veteran status, or perceived membership in any of these categories which results in injuries to the student by contacting the Office of the Dean of Students by e-mail, or in person at 1104 Murphy Hall. Refer to UCLA Procedure 230.1, also available in 1104 Murphy Hall, for more information and procedures.

Inquiries regarding the University student-related nondiscrimination policies may be directed to the Office of the Dean of Students by e-mail, in person at 1104 Murphy Hall, or by phone at 310-825-3871. 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 Office of the Dean of Students by e-mail, in person at 1104 Murphy Hall, or by phone at 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-
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 another school, college, or university in identical or similar form in one course to fulfill the requirements of a 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 informed permission/consent of the instructor of the second course; or the submission by a student of any work which has been previously 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, or other work). Collaboration between students will be considered unauthorized unless expressly part of the assignment in question, or expressly permitted by the instructor.

102.02: Other Forms of Dishonesty. Other forms of dishonesty, including but not limited to fabricating information or knowingly furnishing false information or reporting a false emergency to the University.

102.03: Forgery. Forgery, alteration, or misuse of any University document, record, key, electronic device, or identification, or submission of any forged document or record to the University.

102.04: Theft, Damage, or Destruction of Property. Theft includes taking without 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.

102.05: Computer Misuse. Theft or abuse of University computers and other University electronic resources such as computer and electronic communications facilities, systems, and services. Abuses include, but are not limited to, unauthorized entry, use, transfer, or tampering with the communications of others; use of either software or physical devices to enroll in classes for yourself or on behalf of others using processes other than those specifically delineated by the UCLA Registrar’s Office; interference with the work of others and with the operation of computer or electronic communications facilities, systems, and services; or violations of copyright laws, whether by theft, unauthorized sharing, or other misuse of copyrighted materials such as songs, movies, software, photos, or text. Violation of the University of California Electronic Communications Policy or of any other University acceptable or allowable use policy is also considered a violation of Section 102.05.

102.06: Unauthorized Use of University Resources or Name. Unauthorized entry to, possession of, receipt of, or use of any University services, equipment, resources, or properties, including the University's name, insignia, or seal.

102.07: Violations of University Policy. Students may be subject to discipline for violation of any University policy.

102.07a: University Housing. Violations of policy regarding University-owned, -operated, or -leased housing facilities or other housing facilities located on University property.

102.07b: University Parking. Violations of policy regarding University parking services or University-owned or -operated parking facilities.

102.07c: University Recreation. Violations of policy regarding University recreation services, programs, or within University-owned or -operated recreation facilities.

102.07d: University Identification Card (BruinCard). Violation of policies, regulations, or rules governing use of official University identification cards, including manufacturing or possession of false identification cards, using another person's BruinCard to obtain services or establish identity, facilitating the misuse of one's BruinCard by another person to obtain services or establish identity, or other misuse of the BruinCard.

102.08: Conduct that Threatens Health or Safety. Conduct that threatens the health or safety of any person, including oneself. This includes, but is not limited to, physical assault, sexual misconduct, domestic violence, dating violence, threats that cause a person reasonably to be in sustained fear for one's own safety or the safety of others or the person in a disturbance of the peace or unlawful assembly.

102.09: Sexual Harassment. For incidents involving allegations of sexual harassment, see the SVSH Policy.

102.10: Stalking. Stalking is behavior in which a student repeatedly engages in a course of conduct directed at another person and makes a credible threat with the intent to place that person in reasonable fear for his or her safety, or the safety of his or her family, where the threat is reasonably determined by the University to seriously alarm, torment, or terrorize the person, and where the threat is additionally determined by the University to serve no legitimate purpose.

The UCLA Student Conduct Code prohibits retaliation against a person who reports stalking, assists someone with a report of stalking, or participates in any manner in an investigation or resolution of a stalking report. Retaliation includes threats, intimidation, reprisals, and/or adverse actions related to employment or education.

For stalking violations of a sexual nature, see the SVSH Policy.

102.11: Harassment. Harassment is defined as conduct that is so severe and/or pervasive, and objectively offensive, and that so substantially impairs a person's access to University programs or activities that the person is effectively denied equal access to the University's resources and opportunities.

Sanctions may be enhanced where an individual was selected for harassment because of the individual's race, color, national or ethnic origin, citizenship, sex, religion, age, sexual orientation, gender identity, pregnancy, marital status, ancestry, service in the uniformed services, physical or mental disability, medical condition, or perceived membership in any of these classifications.

For violations involving sexual harassment and sexual violence (including domestic violence, dating violence, and sexual assault), see the SVSH Policy.

102.12: Hazing. Participating in, engaging in, or supporting hazing or any method of initiation or preinitiation into a campus organization or other activity engaged in by the organization or members of the organization at any time that causes, or is likely to cause, physical injury or personal degradation or disgrace resulting in psychological harm to any student or other person.

102.13: Obstruction or Disruption. Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other University activities.

102.14: Disorderly Behavior. Engaging in disorderly or lewd conduct.

102.15: Disturbing the Peace. Participation in a disturbance of the peace or unlawful assembly.
102.16: Failure to Comply. Failure to identify oneself 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 law, possession, use, storage, or manufacture of a firearm or other weapon capable of causing bodily injury is prohibited.

102.20b: Replica Weapons. Except as expressly permitted by UCPCD 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 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-
sponsibl e 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.

2. Contact the Rape Treatment Center at Santa Monica-UCLA Medical Center (424-205-7222) 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 non-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 inter- feres 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) may establish residence for tuition purposes in California if (1) they are U.S. citizens, (2) they are permanent residents or other immigrants, or (3) they are nonimmigrants who are not precluded from establishing a domicile in the U.S.

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, R, T, U, V, or D. To establish residence students must be physically present in California for more than one year, and they must have come here with the intent to make California their home as opposed to coming to this state to go to school. Physical presence within the state solely for educational purposes does not constitute the establishment of California residence, regardless of the length of stay. Students 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 resident 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 their 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...
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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 residency 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 or adults other than a parent for a period of no less than two years. The adult or adults having control must have been residents of California during the one year immediately prior to the residence determination date. The classification continues until students have attained the age of 19 and have lived in the state the minimum time necessary to become a resident, so long as continuous full-time attendance is maintained at a public postsecondary institution.

Self-Support

If students are U.S. citizens or eligible aliens and are minors who can prove that they lived in California for the entire year immediately before the residence determination date, that they have been self-supporting for that year, and that they intend to make California their permanent home, they may be eligible for resident status.

Exemptions from Nonresident Supplemental Tuition

Member of the U.S. Armed Forces

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 have been 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 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 adoptive 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 adoptive 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 ascertained each term.

Child, Spouse, or Registered Domestic Partner of Deceased Public Law Enforcement or Fire Suppression Employee

Students may be entitled to a waiver of nonresident supplemental tuition if they are the child, spouse, or registered domestic partner of a deceased public law enforcement or fire suppression employee who was a California resident at the time of his or her death, and who was killed in the course of fire suppression or law enforcement duties.

Dependent Child of a California Resident

If students have not been an adult resident of California for more than one year and are the natural or adopted dependent child of a California resident who has been a resident for more than one year immediately prior to the residence determination date, they may be entitled to a waiver of nonresident supplemental tuition until they have resided in California the minimum time necessary to become a resident, so long as continuous attendance is maintained at an institution.

Native American Graduate of a Bureau of Indian Affairs High School

Students who are graduates of a California high school operated by the federal Bureau of Indian Affairs may be exempt from nonresident supplemental tuition.

Employee of a California Public School District

Students holding a valid credential authorizing service in the public schools of the State of California who are employed by a school district in a full-time certificate position may be exempt from nonresident supplemental tuition.

Student Athlete in Training at the U.S. Olympic Training Center, Chula Vista

Any amateur student athlete in training at the U.S. Olympic Training Center in Chula Vista
may be exempt from nonresident supplemental tuition 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), attended 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.

Recipients of the Congressional Medal of Honor and Their Children under Age 28
Recipients of the Congressional Medal of Honor and their dependents who reside in California and are 19 years of age or under at the time of enrollment, and are nonresident supplemental tuition. If persons are students who have been classified as residents for tuition purposes and they leave the state temporarily, their absence could result in the loss of their California residence. The burden is on students (or their parents if they are minors) to verify that they did nothing inconsistent with their claim of a continuing California residence during their absence. Steps that students (or their parents) should take to retain a California residence include the following:
1. Continue to use a California permanent address in all records—educational, employment, military, etc.
2. Continue to satisfy California tax obligations. If students are claiming California residence, they are liable for payment of income taxes on their total income from the 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 resident 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 Registrar’s Analyst; fax to 510-987-9757; or mail to Registrar’s 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 F (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 cheated, the suspected infraction is to be reported to the appropriate administrative officer of the University for consideration of disciplinary proceedings against the student. Until such proceedings, if any, have been completed, the Deferred Report (DR) grade is assigned for that course. If in such disciplinary proceedings it is determined that the student did engage in plagiarism or otherwise cheat, the administrative officer, in addition to imposing discipline, reports the nature of the plagiarism or cheating back to the instructor of the course involved. In light of that report, the instructor may replace the DR grade with a final grade that reflects an evaluation of that which may fairly be designated as the student’s own achievement in the course as distinguished from any achievement that resulted from plagiarism or cheating.

Grade Complaints
A grade may be appealed, on any reasonable grounds, to the instructor, the chair of the department, and the dean of the division or school.

If the student believes that the instructor has violated the Faculty Code of Conduct by assigning the grade on any basis other than academic grounds, the matter should first be taken up with the instructor. If the matter is not resolved, the student may go for counsel to the Office of Ombuds Services, or may follow the procedures for the formal filing of charges. If a
charge is sustained by the Academic Senate committees on Charges and on Privilege and Tenure, an ad hoc committee is appointed within two weeks to review the disputed grade, and any warranted change is made within four weeks.

**Correction of Grades**

All grades, except DR, I, and IP, are final when filed by the instructor in the end-of-term course report. However, the Registrar’s Office is authorized to change a final grade (1) on written request of an instructor, provided that a clerical or procedural error is the reason for the change; or (2) on written request of the chair of the UCLA Academic Senate, in cases where it has been determined by the Committee on Privilege and Tenure that an instructor has assigned a grade on any basis other than academic grounds. No change of grade may be made on the basis of re-examination or, with the exception of I and IP grades, the completion of additional work. Any grade change request made more than one year after the original filing must be validated for authenticity of the instructor’s signature by the department chair. Any grade change request made by an instructor who has left UCLA must be countersigned by the department chair. No grade change may be made once a student has graduated. All grade changes are recorded on the transcript.

**Policy on Alternate Examination Dates**

In compliance with Section 92640(a) of the California Education Code, UCLA must accommodate requests for alternate examination dates for any test or examination at a time when that activity would not violate a student’s religious creed. This requirement does not apply in the event that administering the test or examination at an alternate time would impose an undue hardship that could not reasonably be avoided. Accommodation for alternate examination dates is worked out directly and on an individual basis between the student and the faculty member involved.

In general, students should make such requests of the instructor during the first two weeks of any given academic term, or as soon as possible after a particular examination date is announced by the instructor.

Students unable to reach a satisfactory arrangement with their instructor should contact the Office of Ombuds Services, 105 Strathmore Building, or the Office of Student Conduct, 1206 Murphy Hall, for assistance.

Instructors who have questions or who wish to verify the nature of the religious event or practice involved should contact the Office of Ombuds Services or the Office of Student Conduct for assistance.

**Undergraduate Final Examinations**

No student shall be excused from assigned final examinations, except as provided above in the policy on alternate examination dates and as provided in the following three paragraphs.

The instructor in charge of an undergraduate course is responsible for assigning the final grade in the course. The final grade shall reflect the student’s achievement in the course and shall be based on adequate evaluation of that achievement. The instructor’s method of evaluation must be announced at the beginning of the course. The methods may include a final written examination, a term paper, a final oral examination, a take-home examination, or other evaluation device. Evaluation methods must be of reasonable duration and difficulty and must be in accord with applicable departmental policies. Final written examinations may not exceed three hours’ duration, and are given only at the times and places established and published by the department chair and the Registrar’s Office.

At the end of the term in which a student is expected to graduate, the major department may examine the student in the field of the major and, with the approval of the Undergraduate Council, assign a credit value to such general examination. The department may also excuse the student from final examinations in courses offered by the department during that term.

An instructor may release to individual students their original final examinations (or copies). This may be done by any method that ensures the 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 Family Educational Rights and Privacy Act (FERPA), the California Information Practices Act, and the University of California Policies Applying to the Disclosure of Information from Student Records, students at UCLA have the right to (1) inspect and review records pertaining to themselves in their capacity as students, except as the right may be waived or qualified under federal and state laws and University policies; (2) have withheld from disclosure, absent their prior written consent, for release, personally identifiable information from their student records, except as provided by federal and state laws and University policies; (3) inspect records maintained by UCLA of disclosures of personally identifiable information from their student records; (4) seek correction of their student records through a request to amend the records or, if such request is denied, through a hearing; and (5) file complaints with the U.S. Department of Education regarding alleged violations of the rights accorded them by FERPA.

UCLA, in accordance with federal and state laws and University policies, has designated the following categories of personally identifiable information as public information that UCLA may release and publish without the student’s prior consent: name, e-mail address, telephone numbers, major field of study, dates of attendance, number of course units in which enrolled, degrees and honors received, the most recent previous educational institution attended, participation in officially recognized activities (including intercollegiate athletics), and the name, weight, and height of participants on intercollegiate athletic teams.

As a matter of practice, UCLA does not publish student telephone numbers in the campus online directory unless released by the student. The term public information in this policy is synonymous with the term directory information in FERPA.

Students who do not wish certain items (i.e., name, e-mail address, telephone numbers, major field of study, dates of attendance, number of course units in which enrolled, and degrees and honors received) of this public information released and published may so indicate through MyUCLA. To restrict the release and publication of additional items in the category of public information, complete the UCLA FERPA Restriction Request form available from the Registrar’s Office, 1113 Murphy Hall.

Student records that are the subject of federal and state laws and University policies may be maintained in a variety of offices, including the Registrar’s Office, Office of Student Conduct, Career Center, Graduate Division, External Affairs Department, and offices of a student’s College or school and major department. Students are referred to the online UCLA Campus Directory, which lists all the offices that may maintain student records, together with each office campus address and telephone number. Students have the right to inspect their student records in any such office, subject to the terms of federal and state laws and University policies. Inspection of student records maintained by the Registrar’s Office is by appointment only and must be arranged three working days in advance. Call 310-825-1091, option 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 Wiltshire 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 Campus Crime Statistics Act and consistent with the amendments of the Violence against Women Reauthorization Act of 2014, UCLA prepares an annual report describing campus security policy and information concerning alcohol and drug use, crime prevention, crime reporting, and related matters. It also includes three years of crime statistics. Printed copies are available by calling 310-825-1491. The report can be accessed online.

Community Service Officers
UCPD employs approximately 80 student community service officers (CSO) who are the additional eyes and ears (trained observers) of the department and act as nonintervenive 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 website 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 common-sense crime prevention techniques. Because the campus is open 24 hours a day, visitation to residence halls and apartments is not restricted. All residence halls have 24-hour access control on entrance doors, and during the evening hours access control monitors are stationed at each entrance. UCPD police officers and CSOs are also assigned to the residence halls.

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 locking devices and/or alarms. Take advantage of all of 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.

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**APPENDIX B: UNIVERSITY ADMINISTRATIVE OFFICERS**

Terms of Regents appointed by the Governor expire March 1 of the year in parentheses. The student Regent and alumni Regents serve a one-year term beginning July 1 and ending June 30 of the year listed.

**Regents Ex Officio**

- **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 Zeltch** (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
- **Senior 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**
  - Dwaine B. Duckett
- **Vice President—Information Technology Services and Chief Information Officer**
  - Tom Andriola
- **Vice President—Institutional Research and Academic Planning**
  - Pamela Brown
- **Vice President—Investments and Chief Investment Officer**
  - Jagdeep Singh Bachher
- **Vice President—National Laboratories**
  - 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 Santa Barbara**
  - Henry T. Yang
- **Chancellor at Santa Cruz**
  - George W. Blumenthal

**UCLA Administrative Officers**

- **Chancellor**
  - Gene D. Block, PhD
- **Executive Vice Chancellor and Provost**
  - 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
Extension
Dean of Continuing Education and University Registrar
University Librarian
Vice Provost—Undergraduate Education and Engagement
Vice Provost—International Studies and Global Engagement
Vice Provost—Interdisciplinary and Cross-Campus Affairs
Vice Provost—Graduate Education and Dean of Graduate Division
Vice Provost—Information Technology
Vice Provost—Institute of American Cultures
Vice Provost—Interdisciplinary and Cross-Campus Affairs
University Librarian
University Registrar
Wayne Smutz, PhD
Frank Y. Wada, MA
Patricia A. Turner, PhD
C. Cindy Fan, PhD
Timothy F. Brewer, MD, MPH
Linda P. Sarna, RN, PhD, FAAN
Alfred E. Osborne, Jr., PhD,
Senior Dean/Interim
Wayne Smutz, PhD

Deans of UCLA College and Schools

School of the Arts and Architecture
Brett B. Steele, AA Dipl
School of Dentistry
Paul H. Krebsbach, DDS, PhD
Graduate School of Education and Information Studies
Marcelo M. Suárez-Orozco, PhD
Henry Samuel School of Engineering and Applied Science
Jayathi Y. Murthy, PhD
School of Law
Jennifer L. Mnookin, JD, PhD
College of Letters and Science
Humanities Division
David C. Schaberg, PhD
Life Sciences Division
Victoria L. Sork, PhD
Physical Sciences Division
Miguel A. García-Garibay, PhD
Social Sciences Division
Darnell M. Hunt, PhD
Undergraduate Education Division
Patricia A. Turner, PhD, Senior Dean/Interim
John E. Anderson Graduate School of Management
Alfred E. Osborne, Jr., PhD, Interim
David Geffen School of Medicine
Kelsey C. Martin, MD, PhD
Herb Alpert School of Music
Judith L. Smith, PhD
School of Nursing
Linda R. Sarna, RN, PhD, FAAN
Meyer and Renee Luskin School of Public Affairs
Gary M. Segura, PhD
Jonathan and Karin Fielding School of Public Health
S. Jody Heymann, MD, PhD
School of Theater, Film, and Television
Tori E. Schwartz, MA

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
Therianos 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 Samuel School of Engineering and Applied Science
L.M.K. Boelter Chair in Engineering
Vijay K. Dhir Chair in Engineering
Englebright 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 Kniffen 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 for Engineering Excellence
Volgenau Chair for Engineering Innovation
Volgenau Endowed Chair in Engineering
Wintek Endowed Chair in Electrical Engineering

APPENDIX C: Endowed Chairs / 759
School of Law
Norman Abrams Endowed Chair in Law
Omar and Azmerelda Affi Chair in Islamic Law
Harry Graham Balfour Chair in Law
Barrall Family Endowed Chair in Tax Law and Policy
David A. Binder Endowed Chair in Clinical Law
Connell Professorship of Law
Dan and Rae Emmett Endowed Chair in Environmental Law
Rosalinde and Arthur Gilbert Foundation Endowed Chair in Civil Rights and Civil Liberties
Paul Hastings Endowed Chair in Business Law
Robert Henigson Endowed Chair in Legal Ethics
Pete Kameron Endowed Chair in Law
Pete Kameron Chair in Law and Social Justice
Richard C. Maxwell Chair in Law
McDonald/Wright Chair in Law
Arjay and Frances Fearing Miller Chair in Law
Susan Westerberg Prager Endowed Chair in Law
Honorable Harry Pregerson Endowed Chair in Law
David G. and Dallas P. Price Chair in Law
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. Copenhaver Chair
Lloyd E. Cotsen Chair in Archaeology
D.J. and J.M. Cram Chair in Organic Chemistry
Lore and Gerald Cunard Chair in UCLA/Getty Conservation Program
Charles E. Davidson Endowed Chair in Economics
De Logi Chair in Biological Sciences
Donald R. Dickey Chair in Vertebrate Biology
Edward A. Dickson Emeriti Professorship
A. Richard Diebold, Jr. Endowed Chair in Indo-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
Haruhiwa 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
Sady and Ludwig Kahn Chair in Jewish History
Sady 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 Kolm Endowed Professorship in Molecular Biology and Biophysics
Lauren B. Leichtman and Arthur E. Levine Astrophysics Endowed Chair
Madeleine L. Letessier Chair in French and Francophone Studies
Thomas E. Lifka Chair in History
Vladimir and Lydia Markov Chair in Russian Literature
John McGaugh Career Development Chair
Dorothy L. Meier Social Equities Chair
Ronald J. Mellor Chair in Ancient History
Sherie 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
Pourdavoud 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 Saxson Presidential Term Chair in Mathematics
David Saxson Presidential Term Chair in Physics
David S. Saxson Presidential Chair in History
David O. Sears Presidential 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 Terasaki 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
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
Donnalis ‘86 and Bill Barnum Endowed Term Chair in Management
Robert D. Beyer ’83 Chair in Management
California Chair in Real Estate and Land Economics
Edward W. Carter Chair in Business Administration
William M. Cockrum III Presidential Term Chair in Entrepreneurship
William M. Cockrum Professorship in Entrepreneurial Finance
James A. Collins Chair in Management
Warren C. Cordner Chair in Money and Financial Markets
Ernst and Young Chair in Accounting
Laurence D. and Lori W. Fink Endowed Chair in Finance
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 Hufschmied 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 Altschuler Endowed Chair in Mood Disorders
Wallis Annenberg Endowed Chair in Integrative East-West Medicine
Leonard Apt Endowed Chair in Pediatric Ophthalmology
Archstone Foundation Endowed Chair in Geriatrics
Stephen J. Ryan—Arnold and Mabel Beckman 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
Bowyer Professorship in Medical Oncology
Saul Brandman Endowed Chair in Pulmonary Arterial Hypertension
Judson Braun Chair in Biological Psychiatry
Geri and Richard Brawerman Chair in Pediatric Neurosurgery
Gary L. Brindenberg Family Chair in Neuro-Intensive Care
Eli and Edythe L. Broad Foundation Chair in Inflammatory Bowel Disease Research
Rubin Brown Chair in Pediatric Neurology
Barnett Family Chair
Ellen O. and Thomas C. Calcutt, 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 Dourani Chair in Molecular Pharmacology
Dourani Chair in Urological Oncology
Dumont-UCLA Chair in Transplantation Surgery
Max Factor Family Foundation Chair in Nephrology
Charles Kenneth Feldman Chair in Ophthalmology
Elsie and Isaac Fogelman Endowed Chair in Pediatric Neurology
Dr. Daniel X. Freedman Administrative Chair in Academic Psychiatry
Joaquin M. Fuster Chair in Cognitive Neuroscience
David Geffen Chair in Informatics
David Geffen Chair in Medical Research
Laraine and David Gerber Chair in Ophthalmology
Elsie and Isaac Fogelman Endowed Chair in Pediatric Neurology
Dr. Daniel X. Freedman Administrative Chair in Academic Psychiatry
Joaquin M. Fuster Chair in Cognitive Neuroscience
David Geffen Chair in Informatics
David Geffen Chair in Medical Research
Laraine 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
Jona 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. Knepler Chair in Family Medicine
Kolokotrones Chair in Ophthalmology
John J. Kuipper 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
Eleanor Leslie Chair in Pioneering Brain Research
Lya and Harrison Latta Endowed Chair in Pathology
Gordon and Virginia MacDonald Distinguished Chair in Human Genetics
Charles H. Markham Chair in Neurology
Della Martin Chair in Psychiatry
Mattel 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
Moss Foundation Chair in Gastrointestinal and Personalized Surgery
Dr. Walter and Mrs. Kathryn Mullikin Chair in Orthopaedic Surgery
Jane and Marc Nathanson Endowed Chair
James H. Nicholson Chair in Pediatric Cardiology
Mary Oakley Foundation Chair in Neuro-Eye Degenerative 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 Family Foundation Endowed Chair in Pediatrics
Frances and Albert Piansky Chair in Anatomy
Guitiara Pierpoint Endowed Chair in Interstitial Pulmonary Fibrosis
Thomas P. and Katherine K. Pike Chair in Addictive Studies
Elizabeth R. and Thomas E. Plott Chair in Gerontology
Edith Agnes Plumb Endowed Chair in Neurobiology
Harold and Pauline Price Chair in Ophthalmology
Pritzker Family Endowed Chair in Pathology
Sholomo Raz, MD, Chair in Urology
Resnick Chair in Eating Disorders
Lynda and Stewart Resnick Endowed Chair in Human Nutrition
Revel 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
Dalit Sondhi and Elaine Sarkaria Endowed Chair in Diagnostic Medicine
Bernard G. Sarnat, MD, Endowed Chair in Craniofacial Biology
Ethel Scheibl Chair in Neuroscience
William Scheibl Chair in Neurosurgery
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 Silton Family Chair in Movement Disorders
Jennifer Jones Simon Chair in Radiation Oncology
Norton Simon Chair in Biophysics
Jonathan Sinay Chair in Epilepsy
Henry E. Singleton Chair in Urology
Jack H. Skirball Chair in Multiple Sclerosis Research
Jack H. Skirball Chair in Ocular Inflammatory Disease
Jack H. Skirball Chair in Pediatrics
P. Gene and Elaine Smith Endowed Chair in Alzheimer’s Disease Research
Rebecca Smith Chair in Molecular and Cellular Pathology
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 Psychobiology
Spielberg Family Chair in Urologic Oncology
Norman F. Sprague Chair in Molecular Oncology
Frances Stark Chair in Neurology
Fran and Ray Stark Foundation Chair in Digestive Diseases
Fran and Ray Stark Foundation Chair in Ophthalmology
Fran and Ray Stark Foundation Chair in Urology
Peter Starrett Term Chair in Medical Education
Rupert and Gertrude Steiger Vision Research Chair
Jules Stein Chair in Ophthalmology
Michael and Sue Steinberg Endowed Chair in Global AIDS Prevention and Policy Research
W. Eugene Stern Chair in Neurosurgery
Siehm 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 Straus 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
Floyd L. Thornton Chair in Vision Research
Leon J. Tiber, MD, and David S. Alpert, MD, Chair in Medicine
Vernon O. Underwood Family Chair in Ophthalmology
Philo Woodrow Van Wagoner Professorship
Variety Club-D. Barry Reardon Endowed Chair in Pediatric Hematology/Oncology
Richard D. and Ruth P. Walter Chair in Neurology
Richard D. and Ruth P. Walter Chair in Psychiatry
Wasserman Professor of Ophthalmology
David Weil Chair in Psychiatry and Biobehavioral Sciences
Dr. Louis Jolyon West Chair in Psychiatry
Wildier Chair in Psychiatry and Neuroscience
Susan and David Wilstein Endowed Chair in Medicine
Susan and David Wilstein Endowed Chair in Rehabilitation Medicine
Judith and Robert Winston Chair in Pediatric Urology
Herb Alpert School of Music
Susan G. Covel and Mitchel D. Covel, MD, Chair in Music
Mickey Katz Endowed Chair in Jewish Music
Appendix D: Faculty Honors / 763

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 Distinctive Teaching Awards to Academic Senate faculty members. The highly prized awards are presented at the annual Andrea L. Rich Night to Honor Teaching.

The Luckman Distinguished Teaching Awards Program was established in late 1991 after receipt of a generous gift from Harriet and Charles Luckman. Awards given for 1992 through 1997 were named the Luckman Distinguished Teaching Awards.

1961
John F. Barron (Economics)
Hector E. Hall (Physics)
Kenneth N. Trueblood (Chemistry and Biochemistry)

1962
Charles W. Hoffman (Germanic Languages)
Thomas P. Jenkin (Political Science)
Ken Nobe (Chemical Engineering)

1963
Carl W. Hage (Germanic Languages)
Wendell P. Jones (Education)
Robert H. Sorgenfrey (Mathematics)
Saul Winston (Chemistry and Biochemistry)

1964
Mostafa A. El-Sayed (Chemistry and Biochemistry)
Leon Howard (English)
Moshe F. Rubinstein (Civil and Environmental Engineering)

1965
E.A. Carlson (Biology)
W.R. Hitchcock (History)
Allen Parducci (Psychology)
William R. Romig (Microbiology and Molecular Genetics)

1966
George A. Bartholomew (Biology)

William P. Gerberding (Political Science)
Hans Meyerhoff (Philosophy)
Joseph E. Spencer (Geography)

1967
Basil Gordon (Mathematics)
J.A.C. Grant (Political Science)
William Matthews (English)
David S. Saxon (Physics and Astronomy)
E.K.L. Upton (Physics and Astronomy)

1968
Edward W. Graham (Chemistry and Biochemistry)
W. James Popham (Education)
Sydney C. Rittenberg (Microbiology and Molecular Genetics)
Robert P. Stockwell (Linguistics)
Fred N. White (Physics)

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 Cascardano (Biology)
B. Lamar Johnson (Education)
Daniel Kivelson (Chemistry and Biochemistry)
Richard D. Lehan (English)

1971
Vernon D. Denny (Chemical Engineering)
Peter N. Ladefoged (Linguistics)
Arthur D. Schwabe (Medicine)
Duane E. Smith (Political Science)
Andreas Tietze (Near Eastern Languages and Cultures)

1972
Barbara K. Keogh (Education)
James N. Miller (Microbiology and Immunology)
David S. Rodes (English)
Ned A. Shearer (Speech)
Charles A. West (Chemistry and Biochemistry)

1973
Kirby A. Baker (Mathematics)
David Evans (Chemistry and Biochemistry)
Albert Hoxie (History)
Nhan Levan (Electrical Engineering)
Judith L. Smith (Physiological Science)

1974
Robert B. Edgerton (Anthropology, Psychiatry and Biobehavioral Sciences)
David S. Eisenberg (Chemistry and Biochemistry)
Victoria A. Fromkin (Linguistics)
Robert C. Neerhout (Pediatrics)
Andrea L. Rich (Speech)

1975
Alma M. Hawkins (World Arts and Cultures)
Morris Holland (Psychology)
Paul M. Schachter (Linguistics)
Stanley A. Wolpert (History)
Richard W. Young (Psychology)
<table>
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<tr>
<th>Year</th>
<th>Name and Department</th>
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<tr>
<td>1976</td>
<td>Marianne Celce-Murcia (Teaching English as a Second Language and Applied Linguistics)</td>
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<td>Jesse J. Ducmenier (Law)</td>
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<td>George R. Guffey (English)</td>
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<td>Marilyn L. Kourilsky (Education)</td>
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<td></td>
<td>Chand R. Viswanathan (Electrical Engineering)</td>
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<td>1977</td>
<td>Michael J.B. Allen (English)</td>
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<td>Henry M. Cherrick (Dentistry)</td>
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<td>Richard C. Maxwell (Law)</td>
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<td>J. William Schopf (Earth and Space Sciences)</td>
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<td>Verne N. Schumaker (Chemistry and Biochemistry)</td>
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<td>1978</td>
<td>William R. Allen (Economics)</td>
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<td>Michael E. Jung (Chemistry and Biochemistry)</td>
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<td>J. Fred Weston (Management)</td>
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<td>Thomas D. Wickens (Psychology)</td>
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<td>Johannes Wilbert (Anthropology)</td>
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<td>1979</td>
<td>Steven Krantz (Mathematics)</td>
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<td>Paul I. Rosenthal (Communication Studies)</td>
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<td>Christopher Salter (Geography)</td>
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<td>James H. White (Mathematics)</td>
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<td>Stephen C. Yezell (Law)</td>
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<td>1980</td>
<td>A.R. Braunmuller (English)</td>
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<td>Fredi Chiapelli (Italian)</td>
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<td>Kenneth L. Karst (Law)</td>
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<td>Richard F. Logan (Geography)</td>
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<td>Ronald F. Zernicke (Physiological Science)</td>
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<td>1981</td>
<td>Arnold J. Band (Near Eastern Languages and Cultures)</td>
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<td></td>
<td>Charles L. Batten, Jr. (English)</td>
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<td>Lucien B. Guze (Medicine)</td>
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<td>Gerald Lopez (Law)</td>
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<td>Andy Wong (Dentistry)</td>
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<tr>
<td>1982</td>
<td>Dean Bok (Neurobiology)</td>
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<td></td>
<td>Robin S. Liggert (Architecture and Urban Design, Urban Planning)</td>
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<td>William Melnitz (Theater)</td>
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<td>Joseph K. Perloff (Medicine)</td>
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<td>Karen E. Rowe (English)</td>
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<td>1983</td>
<td>Claude Bernard (Physics and Astronomy)</td>
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<td>Bryan C. Eliickson (Economics)</td>
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<td>Robert S. Elliott (Electrical Engineering)</td>
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<td>Charles M. Knobler (Chemistry and Biochemistry)</td>
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<td>Robert Dallek (History)</td>
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<td>Hooshang Kangerloo (Radiological Sciences)</td>
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<td>Stanley Siegel (Law)</td>
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<td>Sandra A. Thompson (Linguistics)</td>
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<td>Patricia M. Greenfield (Psychology)</td>
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<td>David F. Martin (Computer Science)</td>
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<td>Roger A. Gorski (Neurobiology)</td>
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<td>Patricia A. Keating (Linguistics)</td>
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<td>Martin Wachs (Urban Planning)</td>
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<td>Lawrence W. Bassett (Radiological Sciences)</td>
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<td>Howard Suber (Film and Television)</td>
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<td>Richard A. Yarborough (English)</td>
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<td>Alison G. Anderson (Law)</td>
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<td>Ann L.T. Bergens (Classics)</td>
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<td>Kathleen L. Komar (Comparative Literature, Germanic Languages)</td>
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<td>Peter M. Narins (Physiological Science)</td>
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<td>Gary B. Nash (History)</td>
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<td>John S. Wiley (Law)</td>
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<td>Merlin C. Wittrock (Education)</td>
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<td>Michael R. Asimow (Law)</td>
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<td>Edward G. Berenson (History)</td>
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<td>Margaret FitzSimmons (Urban Planning)</td>
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<td>Kenneth R. Lincoln (English)</td>
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<td>Bruce L. Baker (Psychology)</td>
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<td>Paul B. Bergman (Law)</td>
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<td></td>
<td>Robert B. Goldberg (Molecular, Cell, and Developmental Biology)</td>
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<td>Peter E. Kollock (Sociology)</td>
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<td>Eugene Weinberg (History)</td>
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<td>1993</td>
<td>Calvin B. Bedient (English)</td>
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<td>Richard B. Kaner (Chemistry and Biochemistry)</td>
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<td>Katherine C. King (Classics)</td>
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<td>William G. Ouchi (Management)</td>
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<td>Bruce Schulman (History)</td>
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<td>1994</td>
<td>David A. Binder (Law)</td>
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<td></td>
<td>Jon P. Davidson (Earth and Space Sciences)</td>
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<td></td>
<td>Melvin Oliver (Sociology)</td>
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<td>Barbara L. Packer (English)</td>
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<td>E. Victor Wolfenstien (Political Science)</td>
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<td>1995</td>
<td>Noriko Akatsuka (East Asian Languages and Cultures)</td>
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<td></td>
<td>Douglas Hollan (Anthropology)</td>
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<td>V.A. Kolve (English)</td>
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<td>Jerome Rabov (Sociology)</td>
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<td>Paul V. Reale (Music)</td>
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<td>1996</td>
<td>Walter Allen (Sociology)</td>
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<td></td>
<td>Judith A. Carney (Geography)</td>
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<td></td>
<td>William M. Gelbart (Chemistry and Biochemistry)</td>
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<td>Phyllis A. Guez (Medicine)</td>
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<td>Peter B. Hammond (Anthropology)</td>
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<tr>
<td>1997</td>
<td>Utpal Banerjee (Molecular, Cell, and Developmental Biology)</td>
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<td></td>
<td>Christine D. Gutierrez (Education)</td>
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<td></td>
<td>Susan McClary (Musicology)</td>
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<td></td>
<td>Arnold B. Scheibel (Neurobiology, Psychiatry and Biobehavioral Sciences)</td>
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<td></td>
<td>Ivan Szelenyi (Sociology)</td>
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<td>1998</td>
<td>George W. Bernard (Dentistry)</td>
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<td></td>
<td>Verónica Cortiz (Spanish and Portuguese)</td>
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<td>Wayne A. Dollase (Earth and Space Sciences)</td>
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<td>Jayne E. Lewis (English)</td>
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<td>Joshua S.S. Muldavin (Geography)</td>
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<td>1999</td>
<td>Grace Ganz Blumberg (Law)</td>
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<td></td>
<td>Alessandro Duranti (Anthropology)</td>
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<td></td>
<td>Richard H. Gold (Radiological Sciences)</td>
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<td>N. Katherine Hayles (English)</td>
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<td>Bernard Weiner (Psychology)</td>
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<td>2000</td>
<td>Scott H. Chandler (Physiological Science)</td>
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<td>Efrain Cristal (Spanish and Portuguese)</td>
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<td>Hector F. Myers (Psychology)</td>
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<td>David Sklansky (Law)</td>
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<td>Robert N. Watson (English)</td>
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<td>2001</td>
<td>Michael J. Colacurcio (English)</td>
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<td>Glen M. MacDonald (Geography)</td>
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<td>Kevin Terracino (History)</td>
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<td>James W. Trent (Education)</td>
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<td>Brian Walker (Political Science)</td>
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<td>2002</td>
<td>Christopher R. Anderson (Mathematics)</td>
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<td></td>
<td>Steven G. Clarke (Chemistry and Biochemistry)</td>
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<td>Anne K. Mellor (English)</td>
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<td></td>
<td>Lee Todd Miller (Pediatrics)</td>
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<td>Grant S. Nelson (Law)</td>
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<td>2003</td>
<td>Joseph J. DiStefano III (Computer Science, Medicine)</td>
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<tr>
<td></td>
<td>Robin L. Garrell (Chemistry and Biochemistry)</td>
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<td></td>
<td>A.P. Gonzalez (Film, Television, and Digital Media)</td>
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<td></td>
<td>Mitchell B. Morris (Musicology)</td>
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<td></td>
<td>Kirk J. Stark (Law)</td>
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<td>2004</td>
<td>David B. Kaplan (Philosophy)</td>
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<td></td>
<td>Kathryn A. Morgan (Classics)</td>
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<td></td>
<td>Mark R. Morris (Physics and Astronomy)</td>
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<td></td>
<td>Jesús Torrecilla (Spanish and Portuguese)</td>
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<td>Joan Waugh (History)</td>
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Appendix D: Faculty Honors / 765

Non-Academic Senate Recipients

In spring of 1985, the Office of Instructional Development began sponsorship of awards to three instructors who are not members of the Academic Senate. This category includes lecturers, and adjunct and clinical faculty members. All non-Academic Senate faculty members who are nominated by their departments are eligible. Recipients are selected by the Academic Senate Committee on Teaching, using the same criteria as those used for Academic Senate members.

The Luckman Distinguished Teaching Awards Program was established in late 1991 after receipt of a generous gift from Harriet and Charles Luckman. Awards given for 1992 through 1997 were named the Luckman Distinguished Teaching Awards.

1985
L. Geoffrey Cowan (Communication Studies)
Mary Elizabeth Perry (History)
Linda Diane Venis (English)

1986
David Cohen (Mathematics)
Johanna Harris-Heggie (Music)
Paul Von Blum (Interdisciplinary)

1987
Carol D. Berkowitz (Pediatrics)
Jeffrey I. Cole (Communication Studies)
Cheryl Giuliani (Writing Programs)

1988
Jeanne Gunner (Writing Programs)
Art Huffman (Physics and Astronomy)
David G. Kay (Computer Science)

1989
S. Scott Bartchy (History)
Bonnie Lisle (Writing Programs)
Kenneth R. Pfeiffer (Civil Engineering, Psychology)

1990
Lisa Gerrard (Writing Programs)
Andres Durstenfeld (Biology)
Dorothy Phillips (Physiological Science)

1991
Marde S. Gregory (Speech)
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)
The Gold Shield Faculty Prize

The $30,000 Gold Shield Faculty Prize, an award for academic excellence, was created by the Gold Shield Alumnae of UCLA in celebration of their fiftieth anniversary in 1986. The prize is funded by an endowment of $250,000 raised by Gold Shield for this purpose, which has grown to over $450,000. Guidelines provide that the prize "recognize and reward UCLA faculty members who have demonstrated extraordinary accomplishment in teaching and in research or creative activity...and who have made a significant contribution to undergraduate education." Preference for recipients is given to faculty members in mid-career, who do not often receive the extra professional incentives available to distinguished senior faculty.

The Gold Shield Faculty Prize is awarded to each recipient for scholarly use. The awardee is selected every year by a committee of peers appointed by the Academic Senate. Student and Gold Shield representatives are included. Recipients must come from fields that have undergraduate programs at UCLA.

1986-88
Michael E. Jung (Chemistry and Biochemistry)
1988-90
Patricia M. Greenfield (Psychology)
1990-92
Jeffrey C. Alexander (Sociology)
1992-94
J. William Schopf (Earth and Space Sciences)
1994-96
Albert R. Braunmuller (English)
1996-98
Peter M. Narins (Physiological Science)
1998-00
Robert B. Goldberg (Molecular, Cell, and Developmental Biology)
2000-02
Utpal Banerjee (Molecular, Cell, and Developmental Biology)
2002-04
Richard B. Kaner (Chemistry and Biochemistry)
2004-06
Andrea M. Ghez (Physics and Astronomy)
2006-08
Robert N. Watson (English)
2007-09
William J. Kaiser (Electrical Engineering)
2008-10
Alicia Gaspar de Alba (Chicana and Chicano Studies)
2009-11
Robin L. Garrell (Chemistry and Biochemistry)
2010-12
David H. Gere (World Arts and Cultures)
2011-13
Matthew D. Lieberman (Psychology)
2012-14
Kevin B. Terraciano (History)

Eric Marin (Film, Television, and Digital Media)
2008
Leigh C. Harris (Writing Programs)
Chi Li (Ethnomusicology)
Robert B. Trelease (Pathology and Laboratory Medicine)
2009
Brent Corbin (Physics and Astronomy)
Laurence Lavelle (Chemistry and Biochemistry)
Fariba Younai (Dentistry)
2010
Patrick D. Goodman (Law)
Amy H. Kaji (Medicine)
Rory M. Kelly (Film, Television, and Digital Media)
2011
Latifeh E. Hagigi (Near Eastern Languages and Cultures)
Dario Nardi (Anthropology)
John (Jay) Phelan (Life Sciences Core Curriculum)
2012
Stuart Biegel (Education)
Ronald Cooper (Integrative Biology and Physiology)
Michael Lazarus (Medicine)
2013
Randall J. Fallowes (Writing Programs)
Ganna Kudyma (Slavic Languages and Literatures)
Joan R. Schieper (Nursing)
2014
Teddi L. Chichester (Writing Programs)
Robert F. Foster (Management)
Mitchem A. Huehls (English)
2015
Mary Paige Greene (Mathematics)
Eric H. Sussman (Management)
Pavel Wonsowicz (Law)
2016
Ting-Ling Chang (Dentistry)
Gregory J. Rubinson (Writing Programs)
Jeremy D. Smoak (Near Eastern Languages and Cultures)
2017
Mary F. Corey (History)
Benjamin James Lewis (Linguistics)
Jason D. Napolitano (Medicine)
2018
Karen J. Cunningham (English)
Zhao Li (Chemistry and Biochemistry)
Dana Caims Watson (Writing Programs)
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)

UCLA University Professors

University Professors are appointed by the Regents of the University of California at the recommendation of the president.

M. Frederick Hawthorne, University Professor Emeritus, Los Angeles, Chemistry and Biochemistry

Owen N. Witte, University Professor, Los Angeles, Microbiology, Immunology, and Molecular Genetics
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Grunwald center for the graphic arts, 20
Hammer museum, 20
meteorite gallery, 20
Murphy sculpture garden, 20
new Wight gallery, 20
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bruincard, 28
BruinLife yearbook, 27
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California student aid commission
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California teach, 48
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(CARE), 25
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individual major, 79
major, 43
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Bunch, 19
African studies, Coleman, 18
Alzheimer’s disease research, Mary S.
Easton, 19
American Indian studies, 17
American politics and public policy, 47
aquatics, Spiker, 32
archive research and study, 22
art of performance, 31
Asian American studies, 17
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cancer, Jonsson comprehensive, 19
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